Reports from the project

Individual Development and Adaptation

THE LONGITUDINAL ÖREBRO PROJECT: IDA

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Foreword

This report gives an overview of the long history of IDA, written by David Magnusson. He initiated the IDA program and started data collections already in 1965 and he led the program for over 30 years until 1996. The report is not only an invaluable source of information concerning the history and development of IDA but it is also a valuable guide for anyone planning a longitudinal study.

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Stockholm, January 9, 2012

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Introduction

International research cooperation in the field of developmental psychology has clearly acknowledged the contribution from the Swedish longitudinal research programme Individual Development and Adaptation (IDA). This is evident in many ways – international assessments, participation in international research cooperation, visits of varying duration by researchers from abroad, and so on.

Work on the project has entailed interdisciplinary collaboration with researchers in various fields of direct concern for the formulation of relevant questions and their consequences for correct research strategies, research methods and conclusions. This collaboration has been imbued with the holistic theoretical framework for research in developmental psychology that is the primary focus of another research programme, Holistic Interactionism (Magnusson, 1999). During the most active period, these two programmes cross-fertilised each other in practice. This found expression in a regular series of joint research seminars and in the supervision of PhD students.

Background

Scientific endeavours are triggered by the desire to find an answer to a particular question. The research being undertaken within the framework of the IDA programme seeks answers to questions that are rooted in a correct and true-to-life analysis of the lifelong individual process that one wishes to understand, if possible to explain. My interest in the issues that engage the IDA programme (originally known as the Örebro Project) stems from my early experience of children of various ages. After completing the four-year teacher-training course at the college in Linköping in 1946, I worked until 1952 as a primary school teacher in a small town in Småland. There I taught an unselected class of boys and girls, whom I followed from their third to seventh school year. On leave of absence, I studied in Stockholm for a year (1952-53) at the Erica Foundation’s institute for remedial teaching. This entailed attending lectures and seminars, as well as making observations and reporting therapy with children with specific disturbances.

After a year as a primary school teacher in Solna (1953-54), combined with studies at the University of Stockholm, I worked half-time in Solna as a school psychologist. Half of my time was devoted to being head teacher for a small group of 14-15-year-olds who had difficulty in keeping up with an ordinary class.

These tasks gave me important insights into the uniqueness of individual development during childhood and adolescence, not least the part played by the family in this process. This was during the introduction of school psychology in Sweden; as the only psychologist I was responsible for 9000 pupils. One of my functions was to attend the child and youth guidance unit (PBU) once a fortnight to report and obtain comments on an acute case among my pupils.
The Theoretical Frame of Reference and Scientific Reports

IDA’s theoretical background was summarised in Magnusson & Allen (1983). In the light of that perspective, the data that had been collected so far were presented in the first volume (Magnusson, 1988) of a series published by Erlbaum Associates in the USA. The holistic view of individual development set the stage for and perfused the Nobel symposium that was reported in Magnusson et al. (1996): ”The life-span development of individuals: Behavioural, neurobiological and psychosocial perspectives”. Internationally established scholars participated and elucidated the principle aspects of an individual’s development seen as a process of transformation. (Each year the Nobel Foundation selects a few among a number of applications and covers all the costs; the Nobel imprint on a symposium can be said to be a strong indication of the scientific quality of the research that is the programme’s primary subject.)

The early empirical IDA studies were first presented in Magnusson, Dunér and Zetterblom (1975). The theoretical and methodological consequences of the holistic approach were presented and discussed in, for example, Bergman and Magnusson (1997), Bergman, Magnusson, and El-Khoury (2003), and Magnusson and Törestad (1993). The perception of individual development as a transformative process and the consequences of this for psychology as a scientific discipline were discussed in an article, ”The human being in the society”, that appeared in *European Psychologist* (Magnusson, 2012). The article demonstrates and underscores the consequences of psychology being the only empirical social science where results from studies can be generalised to the individual as an indivisible psychobiological and social being.

In longitudinal research, the key scientific questions about the development process cannot be formulated and answered as quickly as is possible in traditional experimental psychological research. The time lag before key questions can be answered is the price the researcher has to pay in order to arrive at scientifically robust answers to central developmental issues. This scientific regime demands a great deal of the individual scholar as well as of the scientific environment for the research.

The scientific harvest from work in IDA has from the start been presented continuously in the project’s series of scientific reports, honours papers, licentiate and doctoral dissertations, scientific journals and volumes, mainly in English. Publications to date consist of 13 volumes, 136 articles in scientific journals, 54 chapters in scientific volumes, and 21 licentiate and doctoral dissertations. Separate studies and plans have been presented from an early stage in a series of reports in English that currently totals 93 items.

*Purpose of this report*

The scientific work in the research programme has thus been presented in the customary scientific way. The purpose of this report is to provide information that can be relevant for reading and understanding the scientific reports but which normally is not included in the presentation of individual studies.
This report presents the programme’s personal background, the general theoretical frame of reference, the research programme’s administrative framework and its links to national and international collaboration. The account essentially deals with the period during which I was in charge of the programme, that is, up to 1996 when this responsibility passed to Professor Lars Bergman.

Lars Bergman was appointed professor in Behavioural Science Research Methodology in 1994. Under his leadership the programme has been developed, extended and deepened. Extensive data collection has enlarged the possibility of studying important issues in a lifetime perspective; questions concerning research methodology have been elucidated and the participation of young researchers from abroad, above all from the Baltic countries, has been developed.

Lars Bergman already had an appreciable share of the responsibility for IDA before he took over from me. His forthcoming retirement has prompted plans for transferring the programme’s extensive data base to Örebro. This move is prompted in turn by the fact that, by agreement with Örebro University, Anna-Karin Andershed and Henrik Andershed at that University are to be responsible for the research programme and the database. This arrangement will favour an optimal scientific return on the work that is described in this report. A continuous, scientifically based follow-up of the programme’s subjects will enhance the value of the information that has been collected as a basis for contributing to our understanding of the process of unique individual development in a way that no other approach can match.

In accordance with the definition of psychology as a scientific discipline that has guided the planning of the empirical studies in IDA, the goal is to generate knowledge about how and why individuals think feel, learn and act as they do in real life. As science evolves, this general approach has, of course, been augmented and refined in the planning of empirical studies of particular issues. Even so, the overall scientific position in which these studies are framed has remained the same.

**Theoretical Base**

As I mentioned earlier, psychology is the only scientific discipline where results from empirical studies of particular questions can be generalised to individuals. Representatives of other disciplines in the social sciences claim that this can also be done in their fields because they too base their conclusions on analyses of data about individuals. They certainly do use data about individuals but what they claim about generalisations from such data is not valid in their disciplines. They use individual data for empirical studies at group level. As Molenaar et al. (2002), using simulated and real individual data, have shown, group data cannot be used without further ado for generalisations about individuals.

The general starting-point for the scientific studies reported in the IDA programme is that every individual functions and develops as a unique, indivisible psychobiological and social being in continuous, complex dynamic interaction with his/her social and physical environment. An important characteristic of this interaction is continuously ongoing interaction processes. Two features of this characteristic, process and interaction, are crucial for comprehending a holistic approach. A proper understanding of these
concepts is of fundamental importance for theory and method in the scientific handling of psychological questions in so far as the aim is to understand and explain how and why individuals think, feel, learn and act as they do in real-life situations.

1. The nature of the scientific space which we endeavour to understand and explain in the social sciences, including psychology, differs from that of the space in which physical sciences abide. The Nobel laureate Francis Crick discussed this difference in *What mad pursuit* (1988) and concluded that the goal of studies of lawfulness in the non-physical world cannot be to express such lawfulness in generally valid terms, as is the case with, for example, the three laws of thermodynamics. What we can do is formulate *regularities* in living biological beings in terms of *principles* that underlie and govern the processes, and the *mechanisms* through which the principles operate.

2. As an overall descriptive notion of individual development, the first term in the concept interaction processes should not be confused with its meaning in statistics (see e.g. Olwaeus, 1977). The central importance of “interaction” for understanding and explaining how biological beings function and develop was discussed by the Swedish microbiologist Uno Lindberg (1992) in *Life is interaction*. A central statement, derived from modern chaos theory and applicable to psychology as a scientific discipline, is that such complex, dynamic processes cannot be understood as the sum of results from studies of particular elements of the process. Each element in a complex psychobiological and sociodynamic process derives its significance in the total process from the context of which it is an integrated part. The role of each element in the process can be determined if the planning, implementation and interpretation of studies of particular questions are undertaken within a comprehensive, holistic frame of reference.

Dynamic interaction, as a central characteristic of the process of individual development studied as a transformative process, is the foundation for a holistic-interactionist view of the complex dynamic processes that characterise the individual as an indivisible psychobiological and social being in continuous interaction with her environment (Magnusson, 1996).

Two perspectives
A distinction between two perspectives of psychological research was already evident in the general formulation of the role of psychology in IDA’s planning reports. This distinction has decisive consequences for theory and empirical work and has to be maintained in every phase of the research process. A conscious choice of perspective is essential right from the initial phase: the formulation of the question the scientist wants to answer.

1. In one of the two perspectives, the intention is to study how an individual thinks, feels, learns and acts in a particular situation. A central concept here is the psychobiological and social individual’s *adaptation* to the current conditions of each situation.

2. In the other perspective the intention is to study how the individual develops in a complex, dynamic *transformation process* from conception to the end of life.
The necessity of maintaining the distinction between the current and the developmental perspectives throughout the phases of the research process was demonstrated early on by my research team in the 1960s. This was done in a series of studies, with holistic interactionism as their common theme, by means of observation of conscripts and preschool children during systematically varied situational conditions (see e.g. Magnusson and Heffler, 1969).

That the two perspectives of the task of psychology must be kept apart in the planning, implementation and interpretation of particular studies does not imply that they are antagonistic. They are not mutually exclusive. On the contrary, they presuppose each other in order to understand how individuals function and develop as indivisible wholes in the dynamic individual transformation process. This dynamic integration of the two perspectives lies at the heart of holistic interactionism.

*Individual development – a transformation process.* A fundamental notion in the formulation of questions, as well as in the choice of strategies and methods for research, in the study of individual development in IDA has been and continues to be that this is a transformation process. This characteristic, which has definite and clear-cut consequences for virtually every theoretical and empirical step in the research process, was aptly formulated by Fentress (1989): “Throughout development, the child or animal refines properties of its expression, combines previously isolated properties together into new packages, and opens up new windows of receptivity to its world while closing other windows on the way to establishing a unique individuality.”

*Consequence: a longitudinal approach.* It took time to gain recognition of the self-evident notion that in order to generate scientifically grounded knowledge about individual development processes, psychology must follow individuals over time. For various reasons, IDA participated in the historical development whereby longitudinal studies of individual development became an accepted practice.

In the early 1960s I had a meeting with the then professor of psychology at Karolinska Institutet, Börje Cronholm, and one of his colleagues. They wanted to discuss a plan for research on ageing. As they were leaving I overheard him say to his colleague, “Well, well, ageing research will be a disorderly business until we start with a group of teenagers and follow them for the rest of their lives.” That strengthened the ideas about a longitudinal research programme that were becoming more concrete at the time.

**Consequences for Research Strategies and Methods**

In a scientific study of organic processes it is crucial that the questions stem from a correct analysis of the nature of the process the researcher is trying to understand. In psychology as a scientific discipline, the self-evident starting-point is an analysis of the process at the level of the individual. The central methodological conclusion of the theoretical analysis boils down to the concept of the *person-oriented approach* (see e.g. Bergman and Magnusson, 1997; Magnusson, 2003).
In the traditional approach in psychological research there is a surprising failure to ground the questions in the process that is to be examined. Questions are commonly formulated so as to test the validity of a hypothesis, for instance about the role of “habits” in a learning process (see e.g. Clark Hull, 1943) or the appropriateness of a particular variant of a psychometric model such as a regression model (see e.g. Cronbach, 1957). When the reliability of the answer to the question is then assessed by analysing the results statistically, for instance whether the findings are statistically significant, the researcher often finds himself/herself in a realm of latent and statistical concepts that may lack real relationships with the process in which he/she is interested.

In empirical studies of psychological processes, the first step involves deciding which of the two perspectives is relevant: does the question concern an element in the individual’s way of dealing with given situational conditions as opposed to an element in the individual’s transformative process?

The second step in the analysis is to arrive at the research strategy that is best attuned to the character of the process which the researcher wishes to understand and explain: an adaptive process to do with the individual’s encounter with particular situational conditions or a transformative process to do with the individual’s development over situations and time.

**Own observations**

Some of my experiences as a primary school teacher and school psychologist were of direct importance for the planning and implementation of the IDA project.

1. When I welcomed 26 nine-year-old pupils in 1946 they seemed to me to be a largely homogeneous group, though obviously differing in height, weight and appearance. However, I soon arrived at what for a teacher and scientist is a vital insight: each child is a unique, indivisible whole in continuous interaction with the unique environment in which it acts and grows up. Looking back, I realise that when I tried to understand a child or a teenager, I never though in terms of variables.

2. When the pupils were eleven or twelve years old, I noted that some of the girls turned into young women with developed bodies while others the same chronological age were still children. I also saw that this had consequences for how they behaved in general, for instance in their relationships with boys and other elements of their environment.

One of the clearest and most significant manifestations of teenage development is the changes in relation to the social environment’s cultural codes. The usual way of measuring age as a chronological phenomenon in terms of months and years – if you will, the number of times the earth has orbited the sun since a person was born – is a handy yardstick of individual development but does not tell us much. Considering how a girl’s developmental process tends to vary with her chronological age at the first menstruation, it is surprising that chronological age is still such a dominant measure of the individual transformative process. For a thorough discussion of this problem, see, among others, Stattin and Magnusson (1990), and Wohlwill (1973). These and other observations from my time as a teacher in primary school led to two conclusions: a/The
way in which each individual functions in a particular situation and the content and form of his/her developmental process are unique, and b/ in order to understand and explain an individual’s behaviour in a particular school environment, as well as how this affects his/her transformative process, it is necessary to follow individuals over time.

When in my professional life I sought answers to questions that arose from the behaviour of a particular pupil, I was surprised to find that researchers had largely disregarded the two circumstances that I referred to above. The literature teemed with cross-sectional studies of certain variables or constellations of variables at group level with no consideration for the unique aspects of the pupils’ mental and behavioural responses to the educational and environmental demands on behaviour and learning. This was the case in spite of the contributions by well-known developmentalists.

University studies
When I started to teach at the department of psychology at Stockholm University and later supervised graduate students, the earlier experiences I mentioned above prompted the questions that I considered that psychology as a scientific discipline ought to address. In the basic textbook *Differentiell Psykologi*, my predecessor, Professor Gösta Ekman, defined psychology as the science of experience and behaviour. Two circumstances coloured my university environment. One was that Ekman, the department’s head and sole professor, was well-known for his research, which focused on models and methods for measuring basal cognitive processes. The other circumstance was the general perception of research as being rooted in traditional theories and models from the natural sciences, particularly the general theoretical and methodological system of laws in physics. There was a tacit understanding that psychological research should aim for what J.B. Watson (1913) had formulated in his presentation of behaviourism, namely “to predict and control behavior”, and that experiments were science’s proper empirical method for achieving this. These aspects of the scientific process provided the implicit foundation for perceiving psychology as a natural science.

When I put the questions that had arisen from my experience as a teacher and school psychologist, those engaged in classic experimental research responded with incomprehension and repudiation. An approach based on the issues my experience had taught me was considered unscientific.

In the US.
It was crucial for my research, including the planning and implementation of IDA, that in 1963 the Council for Social Science Research provided funds for a study trip to the USA. This enabled me to attend the international congress of psychology in Washington and then visit internationally established scientists, particularly those involved in developmental psychology and in methods for psychological research.

The international congress in Washington yielded two matters of decisive importance for the evolution of IDA. One was a long discussion I had with the person in charge of Project Talent, a longitudinal research venture that had been set up in the United States in 1960 in response to the Soviet challenge in space research. The other was my first
encounter with Saul B. Sells, one of the pioneers of interactionism; our meeting initiated a lifelong cooperation.

My stay in the US in the late summer of 1963 gave me opportunities to discuss research in developmental psychology with Harold Seashore and Robert Thorndike II in New York, Raymond B. Cattell and Joe Mc V.Hunt at Champagne-Urbana, Illinois, J.P.Guilford in Los Angeles, and Paul Horst in Seattle, all of them internationally leading researchers in psychological theory and method.

These discussions were exceedingly fruitful, particularly those with Joe McV Hunt, a former president of the APA whose *Intelligence and Experience* had introduced Piaget’s ideas in the USA. After a talk at the hotel where I was staying, he invited me to a continuation at his home; two days’ talking later he stood up and declared, “Go home and do it!”. This laid the foundation for a lifelong professional affinity and personal friendship.

As one who was accustomed to an environment dominated by very different views that I naturally took to be the established scientific universe, these encounters were crucial for my future: what engaged me was acceptable and supported as scientific research in an international perspective!

**Preliminary Empirical Studies 1961-64**

One of a number of useful measures of children’s and adolescents’ development is teachers’ ratings of pupils. When such ratings of pupils of the same chronological age but from different classes are combined, the statistical processing is complicated by some sources of error. One problem when planning IDA was that girls and boys in mixed classed would be rated by male and female teachers, respectively. A preliminary study in 1961–62, using data from a school district in Stockholm, tested whether there were any systematic differences between male and female teachers in their assessments of the behaviour of pupils of the opposite sex. The results played a decisive part in the formulation of the instructions to teachers for their assessments in IDA. These assessments proved to be very valuable for measuring individual development.

An important aspect of the individual transformative process is each child’s and adolescent’s self-perception. A preliminary study of the value of self-ratings in the pattern of individual personalities was undertaken and reported in the departmental report series (Magnusson & Idar, 1963).

**Planning and Preparing Data Collections**

After a thorough perusal by Sven-Eric Henricsson, head of division at the National Board of Education, in spring 1964 the Board decided to support the longitudinal research programme, known initially as the Örebro Project, nowadays as IDA (Individual Development and Adaptation). The first data collection was carried out in spring 1965 after intensive planning the previous autumn. A scientifically grounded understanding of individual development as a transformation process calls for a
meticulous analysis not only of individually specific processes but also of the contextual conditions for these processes. Such an analysis provides the necessary foundation for the choice of research strategy, research methods and the use of statistics. The important preparatory work took various forms.

*Working group.* Planning during autumn 1964 and the early part of 1965 was managed by a working group of three: myself, Anders Dunér and Rolf Beckne.

Anders Dunér had attended a training college for primary school teachers in 1942-46 and worked as a teacher and headmaster in the municipal school system before he graduated in psychology and became a lecturer at the Department of Psychology in Stockholm in 1962. With broad theoretical knowledge of individuals’ developmental processes (acquired for example during studies in remedial training at the Erica Foundation), theoretical insights into and understanding of methodological problems at every level and varied experience of children of different ages, for many years, Anders Dunér played a central part in the management of IDA, not least during the vital phase of planning and initiation. His experience as a teacher and headmaster in a local school system helped to make the cooperation with all those involved realistic, which was crucial for the implementation of the research programme.

Rolf Beckne played a significant part in the working group thanks to his post as principal school psychologist in the community in which the data collections were performed and the broad, reassuring network he had built up there. The personal way he functioned in that network was a major factor in the solution of the numerous problems that are liable to lead to serious obstacles if they are not overcome with insight and discretion at an early stage.

The team’s work involved analysing the overall issues and their consequences for the formulation of specific questions, as well as for relevant research strategies and methods for the study of such questions. At the regular meetings we discussed general theoretical frameworks, specific issues, forms for collaboration with researchers in key fields (medicine, sociology, criminology), forms for cooperation with local and government authorities, school health care, the medical profession, parents and the press. The work was documented, with Rolf Beckne as secretary, in five mimeographed reports that present the initial planning of the project.

*Local authority.* After due deliberation it was decided that the collection of data about schoolchildren and their home conditions could be best arranged with Örebro Municipality. The talks in Washington in 1963 with Project Talent’s administrator were worth a great deal when making this decision. He advised against a nationally representative sample and suggested instead that we study all the pupils in a municipality that would have a sufficiently large number for special studies. Subsequent developments proved that this was a sound decision. Not the least of the benefits was the positive, constructive attitude of all those concerned.

*Local planning – working group.* Our combined experience from school work indicated that the success of what we planned depended a great deal on cooperation with all those concerned. Other longitudinal studies that were being planned at the time had been
discontinued because of insufficient preparation of contacts with the school, parents and representatives of society.

In order to create a favourable climate for the programme, in autumn 1964 I arranged a number of meetings with the head of the local education authority, the senior school medical officer, representatives of the parent and teacher associations and the two local newspapers in Örebro. As a result, a local working group with representatives of the parties concerned was formed at an early stage. The members included someone from the National Board of Education, the chairman of the local school board, the head of Örebro’s local education authority, Örebro’s senior school medical officer, the chairman of the parents association and representatives of the teachers at each level.

The working group was very active throughout the planning period and the data collections. Its members examined, commented on and approved each step in the data collections, the instruments for this and the kind of information which the pupils and parents were given prior to each collection. The same information was given to the journalist at each of the local newspapers who was covering the research programme.

The press. During one of my visits to Örebro in autumn 1964 I met the two local newspapers’ editors-in-chief. We agreed that both papers would first receive information about the programme’s overall aims and organisation and then regular information about each planned data collection and its purpose. They in turn undertook to delegate a member of their staff as the recipient of all information from the programme and as the person who would inform anyone who happened to inquire. This step turned out to be of major, if not decisive importance. Some other contemporary research projects that were based on teachers’ ratings of pupils of various ages ran into trouble because what pupils told their parents, often due to misunderstandings, prompted the latter to complain in letters to the press and the authorities. The information which parents received prior to each data collection in IDA meant that we avoided such misunderstandings. On one occasion parents did turn to one of the newspapers to complain about the content of a questionnaire, whereupon the journalist who handled IDA information was able to put the matter straight. A single such misunderstanding that could not be cleared up in time would have been sufficient to ruin the programme.

It may be worth noting that one of the editors-in-chief got in touch and suggested I should write an article about our agreement for one of the national papers. In his broad experience of the media world, the way we managed information was unique in the interplay between research and the press. As he saw it, researchers divulged as little as possible in order to avoid a public discussion, which they either could not or did not want to handle. To him, what we were doing was an innovation in relations between academia and the press and it ought to be made public.

**Data Collections**

As mentioned above, the first data collections were done in late spring 1965; they are described in more detail in Magnusson, Dunér and Zetterblom (1975). Göran Zetterbom made an important contribution to that work before moving to an administrative post in
the Office of the Chancellor of Swedish Universities. The following account summarises the collections and considers some aspects of the database.

The first data collection involved the pupils in three grades and their parents:
Grade 3  1,025 pupils
Grade 6  960 pupils
Grade 8  1,259 pupils

In the Swedish school system at that time, children started school at the age of seven. At the time of the first data collection in 1965, a majority of the pupils in the three grades were approximately 10, 13 and 15 years old, respectively.

Study groups
1. The main group. The pupils in grade 3 at the time of the first data collection in 1965 – the youngest of the groups in what was then the Örebro Project – constituted and still are the research programme’s main group. This group was subsequently followed with extensive data collections, focusing on teenage problems, in 1968 and 1970, when a majority of these pupils were 13 and 15 years old, respectively. The main group is still being followed.

2. The pilot group. The group of pupils who were around 13-years-old at the time of the first data collection were followed by collecting new data three years later. The database accordingly contains information about two cohorts in their early teens, an important phase of development.

3. Sample. A sample of around 240 boys and girls (later men and women) from the main group was obtained in order to supplement the main database with data that had to be collected individually, above all data for aspects of the development process that could not be covered in the main collections. The biological studies concerned cognitive processes and electrophysiological cerebral activity (EEG), the collection and analysis of urine samples for the study of catecholamines, and tests of physical strength and lung capacity. The data from the sample were first obtained in connection with the second extensive collection of data in 1968, when the pupils of the main group were around the age of 13. The sample has been followed together with each new collection of data for the main group.

Data for the grade 8 pupils who were around 15 years old at the time of the first collection in 1965 were not collected again. This group served as a basis for studies of any side effects.

Sources of information
Information of an individual nature has been obtained from the pupils themselves, their parents, teachers, authorities (register data), school medical officers and school psychologists. In every case the collection was preceded by a discussion in the local working group. The data are stored with strict confidence and limited access. All the participants have been informed about what the data consist of, how they have been made non-identifiable and how they are used.
Data for situation-specific assessments. While traditional methods could be used to study certain aspects of the individual transformative process, in other cases they did not suit our purpose. A good example is the study of individual teenage behaviour connected with cultural values. With reference to the concurrent research programme “Holistic Interactionism”, new instruments were developed for such studies. Instead of the usual practice of using general questions about values, for instance “Is stealing acceptable?”, questions were formulated in terms of situational behaviour, for instance “Bob/Mary is in a store and can conceal a pocket calculator in his/her coat without getting caught”, followed by questions concerning the pupil’s own behaviour, how he/she expected peers to behave and react, and the expected reactions of parents, etc. The pupils’ responses to a series of questions of this type – indicating their own situational behaviour, peers’ expected behaviour and parents’ expected reactions to ten situations of relevance to teenagers – yielded important individual information.

Conditions at home – parents’ reports. In the first data collection the parents – with an exceptionally high response rate, 98 per cent – provided information of fundamental importance for the studies at individual level which were the programme’s objective. These data were essential for elucidating the role which parental values, as manifested for example in various forms of social engagement, may play in an individual’s developmental process.

Register data. An important addition to the data provided directly by the participants consisted of extracts from various registers: on crime, obstetrics, psychiatry and alcohol abuse. All the participants have been informed about access to these data.

Access to data
IDA’s database is a result of careful planning in accordance with a general theoretical approach and the intention of collecting data from the same individuals over a period of more than four decades. As evaluators with different perspectives have pointed out, this affords unusually valuable possibilities of studying questions of importance in developmental psychology. Under these circumstances it is natural that, given an agreement with IDA’s management, the data in the IDA database can be made available for research based on a holistic, interactionist approach to individual developmental psychological processes, after due discussions with the leaders of the programme.

Questions have naturally been asked about access to the database for other research. In traditional research in developmental psychology, statistical methods are commonly chosen for answering questions without the choice of method being preceded by a thorough analysis of the developmental processes that are to be understood and explained. This tradition is partly sustained by the superficial sense of credibility and meaningfulness that the use of data and statistics imparts (see e.g., Sorensen, 1998). In this tradition IDA’s database would very soon be ruined and useless for scientifically planned and implemented analyses. Access to IDA data therefore has to be limited by specific restrictions that preserve the database’s scientific quality.

Summary of the preparations
The data collections to date are presented in a report written by Lars R Bergman (Bergman, 2008). Virtually every data collection, from the first, extensive one in 1965
onwards, went smoothly in accordance with the planning that preceded it. The data, which have been regularly collected and stored in ways that the local working group were fully informed about, have been preserved intact.

In connection with each data collection, information about what had been planned was distributed to teachers, parents and the press. The meetings that had been held with the local working group contributed to the formulation of this information. In the occasional public discussions of conditions for and the value of longitudinal studies, IDA’s open way of presenting the research programme has been seen as important. This has provided a ground for the positive attitude which has characterised every assessment of the project. The way in which all individual data in the database are protected so that the participants’ identities cannot be revealed has contributed to the positive reception. In the late 1980s, when longitudinal research was being debated in the Swedish parliament, an otherwise critical person cited IDA as a model for how such research ought to be prepared, implemented and reported.

On-going Work

Research seminars
For a long time, continuous discussions in the regular weekly research seminars at the Department of Psychology at Stockholm University were an important element in the planning and implementation of the entire programme. These sessions, which began at an early stage, dealt with the general theoretical and methodological issues that arose as the programme took shape. There were frequent discussions of graduate papers and dissertations.

The seminars were also an opportunity for visiting scholars to present their research. In this way and by participating in the regular discussions, they helped to keep us aware of the international research perspective. Every third term we invited a representative of some other scientific discipline that was of interest for a scientific study of individual development. For example, Professor David Ingvar spoke about modern knowledge of the brain, Professor Uno Lindberg presented microbiological research on embryonal development and Professor Birgitta Tullberg gave a talk on modern genetic thought about the dichotomy of inheritance and environment.

The regularity of the seminars and the breadth and depth of their treatment of important issues, usually with the aid of highly competent scientists, made the sessions increasingly popular. A growing number of the participants came from practical fields, e.g. school medical officers, or from other scientific disciplines. The seminar room was quite often crowded out and we had to use the corridor as well.

Directing research
In that the individual information covered an increasingly long section of the individual developmental process, the available data became more and more extensive and complex. After each round of data collection, a new, sizeable body of data had to be incorporated in the existing database without revealing the participants’ identity.
In the late 1980s the responsibility for specific parts of the programme was shared out among active colleagues so that the planning and implementation of data collection and the utilisation of available data could be kept in line with the holistic approach behind the programme’s theoretical scientific framework. By way of information to all participating researchers and financiers, including scientists abroad and visiting researchers, the theoretical background and the current allocation of responsibilities were summarised in a brochure: *The Laboratory for Longitudinal Research on Individual Development*.

Within the framework of the holistic approach, which was my responsibility, the specific responsibilities were assigned as follows:

Socialisation and antisocial development: Håkan Stattin, currently professor of psychology at Örebro University.
Personality and psychobiology: Britt af Klinteberg, currently professor emeritus of psychology at Stockholm University.
Alcohol and drug abuse: Tommy Andersson, currently assistant professor and lecturer at Umeå University.
Methodological and empirical aspects of a person-oriented approach to individual development: Lars R. Bergman, from 1994 professor of behavioural science research methodology at Stockholm University.

*The database.* A central task in the implementation of the research programme is to arrange for all the collected information – specific for each individual or otherwise relevant for the study of individual development – to be assembled in a database. Examiners in various contexts have underscored the database’s scientific value for future studies of individual development. For many years Lars Bergman played a central part in building up the database, from the time when the collection of data was being planned to the database’s organisation and accessibility. For almost three decades the daily, time-consuming and sometimes thankless task of adding new data to the existing base and keeping, in an efficient and meticulous way, the base accessible for scientists with various interests, has been in Ola Andersson’s hands.

Without Lars Bergman’s leadership and Ola Andersson’s conscientious efforts, the extremely complex and vast database could easily have been abused and come to resemble a heap of pine needles rather than a functional anthill. In recent years, Peter Zettergren has made a valuable contribution to the methodological work that is Lars Bergman’s responsibility.

**International Links**

It takes time for a longitudinal programme to yield scientifically reliable results. Time is, of course, a fundamental dimension for the implementation of such a programme. This puts a premium on the ability of those concerned to plan for the long run. In this context, recurrent international contacts with scientists, research teams and institutions became increasingly important as time passed and the programme became internationally established and recognised.
Visiting scientists. The material assembled in a longitudinal research programme in ways that are scientifically sound and sustainable becomes increasingly valuable as time passes. For different reasons, scientists of varying rank, from PhD students to internationally established scholars, came to the research programme for a shorter or longer stay. Visiting scientists have been valuable participants in our seminars and daily discussions.

Besides the presentation of the research programme in scientific journals, natural components of international cooperation have been presentations at local and international seminars and my work as a member of research committees in various countries. Participation in seminars, symposia and congresses provided natural opportunities to meet other scientists, exchange ideas and swop information about developments in various fields.

International research cooperation
As a member of scientific councils at research departments in Berlin, North Carolina, Penn State and Michigan, I obtained information not only about current research results but also about plans and ideas at the cutting-edge of research. At the same time, I was in a position to inform leading centres of research about our work in IDA.

For many years I enjoyed particularly close personal contacts with Paul Baltes at the Max Planckinstitutet in Berlin, Robert and Beverly Cairns at the Center for Developmental Science in North Carolina, Richard Lerner, Anne Petersen, Jean Brooks-Gunn and John Nesselroade at Penn State, later Baltimore, and Larry Pervin at Rutgers University. Via these contacts, a mutual exchange of scientists gave us a continuous flow of information about the current international state of research at the same time as we were able to spread what was happening at IDA.

Finland and the Baltic states. One of our earliest collaborations with longitudinal research programmes abroad was with the programme that Professor Lea Pulkkinen initiated and led for a long time in Jyväskylä, Finland. Pulkkinen’s programme soon found its place in the informal international network that evolved in the 1980s and ’90s. This cooperation has been sustained in various forms under Lars Bergman’s guidance. He has also overseen the development of cooperation with the Baltic states, in particular with Lithuania. Among other things, this has led to visits by scientists and work on doctoral dissertations that have been presented at Stockholm University.

Eastern Europe. Regular participation in the symposia that were organised early on by scientists, mainly from Eastern Europe, dominated in those days by the Soviet Union, was interesting and valuable, not least for our mutual scientific exchange. Developmental psychology was the dominant theme. The meetings were organised locally and this arrangement caught on in East and West Germany, Poland, Bulgaria, Austria, what was then Czechoslovakia, and Russia.

The origin of this lively collaboration with East European scientists was an invitation to a symposium in Czechoslovakia in 1973. The collaboration, which continued for decades, took two forms. One consisted of regular invitations to the seminars in these countries in the 1970s and ’80s, which enabled me to follow their research in various
field and present what IDA was doing. The other was the active cooperation which IDA coworkers established with the research department of the Russian Academy of Science (NAUK). Close cooperation with Boris Lomov at the Academy and with Andrej Brushlinsky and Tatjana Ushakova at its research department stimulated my own thinking and scientific output. One indication that IDA’s scientific quality was appreciated was my election as a foreign member of the Academy. In that NAUK is one of Europe’s oldest and most respected academies of science, this could be seen as a token of international recognition of our work.

**Empirical research cooperation.** While some of the symposia, for natural reasons, were marked by the political situation in East European countries, they still provided opportunities for fruitful scientific exchange. Among other things, I learnt a great deal about the historical background to modern psychological research, including studies in developmental psychology, much of it less well known to western scientists. In 1994, I and my coworkers presented our longitudinal research programme during a visit to the department of psychological research at the Academy of Science in Moscow. Supported by the Swedish Academy of Science, one of IDA’s staff, Britt af Klinteberg, initiated a programme of collaboration with the Russian department’s researchers, an activity that continued for many years.

One of our studies is noteworthy in this context. Eva Chinapah, a scientist with roots in Czechoslovakia and knowledge of differences in childhood cultural environments, contributed to a multicultural follow-up of IDA’s data from the teenage period. The Swedish data had indicated that teenage behaviour was strongly influenced by cultural codes in the environment. An IDA study about this was undertaken in a small eastern town in the Czech Republic where traditional conservative cultural codes still applied. In this cultural environment the teenage girls’ behaviour in relation to the opposite sex was considerably more restrained than that of their Swedish counterparts. Studies of this type are naturally of great importance, above all data from the person-oriented approach on which our research programme is based.

**European Science Foundation (ESF)** was founded in 1974 by academies of science and research councils in Western Europe; their counterparts in Eastern Europe have also been members since the fall of the Berlin wall. I became Sweden’s representative in ESF’s Council in 1983 and one of three vice presidents in 1986. Over the years ESF has been active and successful in organising various forms of cooperation between research teams in every discipline in Europe and this has been arranged most cost-effectively.

In September 1984 the research ministers of West European governments met in Paris to consider the promotion of scientific cooperation at the European level. They concluded that the best forum for discussing and initiating such plans would be a body dominated by scientists. ESF responded to the challenge and invited all its member countries to submit proposals for scientific networks. Later in 1984 the Swedish Ministry of Education asked me to draft a proposal for a European network for longitudinal research; I did so and the result was presented to ESF as Sweden’s contribution.

A committee perused all the proposals that ESF received and ranked them for scientific
quality and European relevance. The Swedish proposal was well received and it was decided to establish the first official network: The European Network for Longitudinal Research on Individual Development. The research councils in eleven European countries accepted the invitation to participate in this network and agreed to cover its costs. As chairman I then led the most competent committee I have ever worked on; its members included leading scientists from fields of importance for an understanding of the individual developmental process: biology, psychiatry and psychology.

The cooperation in this network produced eight volumes, published by the Cambridge University Press and setting out theoretical and methodological analyses of longitudinal research in various fields. Lars Bergman was a prominent participator in a symposium on method. Bertil Törestad, another long-term colleague, made an important contribution as an organiser and coordinator of symposia. Another product of the network was a published account of all the current longitudinal programmes in Europe; they totalled around 500 projects. As proposed by the committee, the future task of updating this report was handed over to a European research centre in Trier in Germany.

Links with the United States. As a member from 1991 of the Board of Trustees for the Social Science Research Council in the USA I was able to promote European social science research cooperation with the USA. As I was also a member of the Swedish Academy of Science and chaired its social science class, this helped to widen our outlook on international research.

The work of the network under ESF had an international impact and highlighted Europe’s leading role in the theory and methodology of longitudinal research. This was evident from a growing interest in setting up new longitudinal research programmes, for instance in the form of Euro-American networks. In the late 1980s I attended a meeting in Washington at which fairly advanced plans for such a network were presented to the intended funders, one of the largest US research councils. The overall plan involved coordinating three nodes, two in the US and one in Europe. I called for a well-reasoned, scientifically motivated plan for matching research strategies, data, methods and interpretation of results with reference to the general issues. Without such a plan, I was not prepared to participate. In the end the project was abandoned. (My opinion, which I did not express explicitly, was that the scientific return on this very extensive and expensive project, as planned, would not come up to expectations. To repeat the metaphor I have used, the end result would probably resemble a heap of pine needles rather than a functional anthill.)

Summary. Two aspects of the international cooperation have had decisive effects on our work. One is the frequent participation in international symposia and seminars, the other is the visits of varying duration by scientists at every level, from PhD students to internationally prominent persons.

Finance

As mentioned earlier, the approach on which IDA is based did not find favour with experimental psychologists, either in Sweden or elsewhere. Some educationists, for
instance, considered that the project’s aims belonged to their research territory. A fairly new Swedish journal on research into education published an assessment of IDA by a reputable educationist professor whose main field was statistical methodology. He was extremely critical of IDA and concluded that cross-sectional studies would yield the same scientific results more quickly and at considerably less cost (a claim that is evidently so unscientific that I refrained from further comment).

This article had immediate consequences. I was summoned to the director-general of the National Board of Education who told me that unfortunately the Board could no longer fund IDA. The reason he gave was the article in question and the professor’s reputation as a scientist.

To obtain future financial support for IDA then application for money was sent to the Swedish Council for Planning and Coordination of Research. Shortly before my application was considered, I ran into the Council’s chairman, who had just read the application and considered that we had a good case. From then on, IDA was funded mainly by the Council and the Bank of Sweden Tercentenary Foundation.

Coworkers
There was a period when IDA benefited greatly from a decision that research programmes which are dependent on long-term funding would be guaranteed a continuous flow of funds subject to certain controls. If it is to yield the return that meets the necessary scientific standards, such research cannot be discontinued for a time and then resumed when funds become available again.

The extent to which a longitudinal programme functions properly and the quality of its results depend on many people’s competence and efforts. The inputs to IDA have naturally varied over time. Many of those who have been involved in the programme are easily identified from their authorship of the papers that have been published in scientific journals or the programme’s internal series. Most of those from the early decades are also presented in Magnusson (1988). Others who have made important, sometimes crucial, contributions are liable to be overlooked. At least some of those without whose efforts IDA would not have become what it is today are mentioned below.

Graduates at various levels displayed great enthusiasm and commitment in the choice of the relevant methods for the study of teenage problems and thereby contributed to the database’s content of important data for the study of individuals’ development processes.

Neither would IDA have attained its present position without the programme’s secretarial staff. They have been important not least for our international contacts. During the first sixteen years of the programme these contacts were one of Barbro Svensson’s responsibilities and she saw to it that they became increasingly lively. This responsibility was taken over in 1986 by Luki Hagen as head of the secretariat. In recent decades, Viera Dornic has been in charge of financial supervision and the accounting of research grants.
Scientific Assessments

A research programme such as IDA is dependent on continuous funding. This has entailed reports of the programme and its theoretical foundation, which in turn has consequences for the choice of sources of information, methods for data collection and methodological approach, besides grounding the programme in the local school system and society, in a number of applications for research funds. When it came to examining the applications for funds, those who have helped to finance the programme – mainly the National Board of Education in its day, the Bank of Sweden Tercentenary Fund and the Council for Planning and Coordination of Research – have turned to national and international specialists. The results of the assessments have been consistently favourable, in some case very favourable.

As mentioned earlier, the programme’s results have been presented in, for example, some volumes with the common title *Paths through life*, published by Erlbaum Associates. The second volume, Stattin & Magnusson (1990), was reviewed in *Contemporary Psychology* by Richard Lerner, a distinguished scientist in developmental psychology, and one of his coworkers. They summarised their opinion of the research programme as follows “*In sum, the research project from which this book is derived should be the standard citation for a data set exemplifying the developmental contextual of human development. To the extent that this research is the exemplar of the importance of what may be a new theoretical paradigm – not only for developmental psychology but for the study of human behavior in general (cf. Bandura, 1986) – Magnusson’s IDA project may be the single most important longitudinal study of this century*” (Lerner & Schwab, 1991).
References


