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**AN APPLICATION OF SOCIAL CATEGORISATION AND SOCIAL IDENTITY THEORY
TO MENTAL RETARDATION**

Lindsay St. Claire

Declaration

I declare that this thesis, composed by myself and embodying work carried out by myself, has not previously been submitted for examination at this or any other University. All sources of reference and quotation have been duly acknowledged.

Lindsay St. Claire

Was ist das Schwerste von allem? Was dir das Leichteste
dünket, mit dem Augen zu sehen, was vor den Augen dir liegt.

(What is the most difficult of all? That which seems to you
the easiest, to see with one's own eyes what is lying before
them.)

Goethe, Xenien aus dem Nachlass, N. 45.

ABSTRACT

The active process of cognitive categorisation, as opposed to "objective reality" is introduced as a fundamental determinant of human perception. It is argued that what mental retardation is understood to be and consequently, who is mentally retarded, is not solely a matter of intraorganismic pathology. Rather, it is influenced by the normative beliefs that evolve in transaction with the interests and purposes of social systems. Cross-cultural and historical examples are given and apparent conflicts in the empirical literature resolved, since differences need not imply contradictions, ignorance or experimental failure, but can simply reflect operations of different norms. Study 1 predicts and finds differences in beliefs about retardates that are attributed to subjects' group memberships.

Chapter 3 identifies the deductive aspect of Tajfel's social categorisation theory as a mechanistic psychological pathway whereby macrosystem level normative beliefs influence the perception of labelled retardates, and by extrapolation, their treatment and development. Tajfel's paradigm brings form and sense to apparently contradictory labelling studies, and Study 2 predicts and finds enhanced perceived intragroup similarity and intergroup dis-similarity of 4 normal and 4 subnormal children as a function of the labels "mentally retarded" and "normal", the children's characteristics and the dimensions along which judgements are made.

In Chapter 4, the pathway is made social psychological. Turner's social identification model is described and referent informational influence identified as the mechanism whereby individuals enact their group memberships and hence, conform in mediating shared normative beliefs. Thus, beliefs about and perceptions of retardates in any social system are seen as depending on members' shared social identification and not on an amalgamation of individual beliefs. Study 3, provides preliminary support, since lay subjects seem able to mimic doctors', teachers' and "personally acquainted people's" beliefs about retardates, which demonstrates that cultural expectations are sufficient to generate typical attitudinal patterns, independent of real doctors' teachers' and acquainted people's experiences. In Study 4 characteristic clinical influences on the conception and diagnosis of retardates is shown to depend on a salient medical social identification and not on being a "medic".

In Chapter 5, referent informational influence is reintroduced as a transactional mechanism whereby the individual might shape the development of his own retardation. Rather than a pathological condition, mental retardation is seen primarily as a handicap, not only externally imposed by the expectations of others, but internally fulfilled by a salient retardate social identification. A possible ontology of a retarded self-image, together with its role in mediating retarded behaviour and reconciling apparently inconsistent empirical studies is sketched. Subsequently, in Study 5 preliminary empirical support is derived in the form of changes in special school-children's self images according to situational emphasis on personal or social identity.

The optimistic implication of social categorisation and social identification theories is that amelioration of retardation need not wait for medical breakthrough, but can begin with perceivers' beliefs and the personalisation of retardates' self-concepts.

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PREFACE

Empirical work and literature reviews were carried out during a period of full-time study from 1979 to 1982, after which I began employment at Bristol University's Department of Child Health. Thus, the bulk of writing-up was done on a part-time basis between 1982 and 1984.

To avoid confusion, a note on terminology is appropriate: all factor analyses were carried out using the recommended options in the BMDP factor analysis statistical package, which extracts principal components. Thus "factor analysis" is used in its general sense throughout, and as discussed in Appendix 2.4c, specifically refers to a full component rather than a common factor model.

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CHAPTER 1

Introduction and overview

In 1972, Henri Tajfel wrote,

The segmentation of the environment in terms of groupings consisting of items which are equivalent to one another for given purposes and differ, with regard to the same purposes, from other groups of items, is a sine qua non condition of survival. Without this process, adequate reaction to whatever happens in the environment or adequate action upon it would not be possible.

He continues,

The principal function of categorising resides in its role as a tool in the systemisation of the environment for the purposes of action.

1972, p. 4

These words form the cornerstone of the present social approach to the development of mental retardation, not only because Tajfel's notion of categorisation, it will be seen, appears as its principal mechanism, but also because categorisation may be linked to Kuhn's (1974) fascinating analysis of scientific paradigms, in which sense, it underpins the theoretical orientation and hence, the direction and content of the following work.

To enlarge upon this, Kuhn (1974) defines "paradigm" as the constellation of beliefs, values, rules and techniques shared by a scientific community. In a narrower sense, he also defines it as an agreed example illustrating such a constellation, which may serve as a template for future research. Without a paradigm, he continues, scientific endeavour is directionless: all data appear equally

relevant and are uninterpretable or else interpretable in many ways, because there is no theoretical framework to give them shape. Scientific progress, it follows, is not a steady accumulation of fact. Rather, it is a matter of assimilating data into pre-existing paradigms. Thus, knowledge is not dictated by objective reality, but by the conceptual fit into the prevailing world view.

Clearly, in this sense, Kuhn's notion of scientific research is analogous to Tajfel's notion of categorisation.

Kuhn continues to argue that scientific research can often be regarded as puzzle solving, that is, as a search for ways to apply accepted rules to arrive at the predicted answer. Paradoxically, this often results in the discovery of novel facts, or the invention of novel theories, although the search-directed nature of the scientific method reduces the likelihood of such events. If novelties are both anomolous - that is, cannot be assimilated by the existing paradigm - and persistent, a crisis might arise. This corresponds to a period of theoretical flux and a proliferation of adjustments to the paradigm until eventually, a new one that better fits the unexplained phenomena arises to clash with the old, and ultimately, to supplant it in what Kuhn terms a "scientific revolution".

The primary orientation of the present work is social psychological and the paradigms on which it is based will be

made explicit as it progresses. Before embarking, however, it seems appropriate to make brief mention of the developmental paradigm into which the social psychological influences are to be assimilated.

According to Lerner and Busch-Rossnagel (1981), developmental theory itself undergoes developmental change, although in the light of Kuhn's opinions, their comment might suggest a smoother progression than was actually the case. Bearing this in mind, Mussen, Conger and Kagan, (1974) point out that children were simply regarded as immature adults until the seventeenth century, when for reasons not properly understood, they were conceptually separated from adults. During this period, a seminal interest in child development, enforced by a belief that early events affected adult life, grew. The earliest writers, Mussen et al continue, were philosophers, some conceptualising the child's mind as innately determined, like Rousseau, for example, who believed children to be endowed with a natural moral sense that was likely to be marred by society. Others like John Locke, on the other hand, viewed the infant mind as a tabula rasa, and experience and education as the fundamental determinants of development.

In the nineteenth century, scientists began to see the child as worthy of study, since Darwinian theory suggested man

could be understood through examination of his phylogenic and ontogenic sources, although, as Kuhn's analysis predicts, early researchers concerned themselves with the collection of age related data, not theoretical synthesis.

A theoretical legacy from the philosophers might however be discerned in the dichotomy between later behaviourists like Watson and Skinner, who maintained that psychological development was entirely determined by environmental influences, and others, like Freud, who viewed it as the result of internal processes. The logical absurdity of both approaches was condemned by Hebb (1958) who argued that no genetic material can produce behaviour without first developing in a nutritious environment and that no amount of environmental intervention can ever shape a man from an animal.

Sameroff and Chandler (1975) identify three models which they argue, underlie developmental research. Only the last, the transactional model, has been made explicit.

The first, the main effect model, held that genetic and environmental influences have independent additive effects, as evinced, for example, by Jensen's (1969) argument that individuals with low intelligence will show consistent deficits in performance across all environments. Similarly, Bowlby (1969) believed that maternal deprivation would have damaging consequences on every child, whatever its genetic

make-up.

Sameroff and Chandler next identify an interactive model, which it might be hypothesised, resulted from the discovery of data that could not be assimilated by the main effect model. For example, many children who had undergone severe deprivation during infancy but were subsequently adopted into superior environments, showed no deficits. Thus, biological and environmental influences were held to interact: deficits could be greater than those predicted by the sum of each disadvantage, or alternatively, the effects of disadvantage might be "washed-out".

The transactional model grew as a result of the realisation that neither environment nor child remained constant during interactions. For example, in a classic study, Thomas, Chess and Birch (1968) found developmental outcomes were not predicted by infants' characteristics so much as by parents' adjustments to them. Thus, the infant influenced his caregivers and so modified his own developmental environment and a progression of such mutual transactions was visualised. Similarly, Lerner and Busch-Rossnagel (1981) add that it became clear that developmental change, unrelated to childhood events or age, occurred throughout life.

Within the transactional model, development is potentially multi-directional and multidimensional, influenced by all

levels of the context in which the individual is embedded. Thus, plasticity and the possibility of development throughout the entire lifespan is stressed, together with the dialectic relationship - passive, active or even intentional - between individual and context. As Lerner and Busch-Rossnagel put it:

individuals are products and producers of the context that provides a basis for their development. As such, individuals may be seen as producers of their own development.

1981, p. 6

This view of development is implicit throughout the following work, which although primarily social psychological in orientation, can therefore also be seen as an attempt to apply aspects of the transactional paradigm.

Recently, Bronfenbrenner (1979) has made a searching and comprehensive attempt to articulate more fully a transactional view of development, providing several concepts that are extremely useful for present purposes. Most useful, Bronfenbrenner's definition of development explicitly visualises the individual as embedded in his context, as he perceives it.

Development is the process through which the growing person acquires a more extended differentiated and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content.

1979, p. 27

The environment, Bronfenbrenner envisages as a set of nested structures, like Russian dolls. The innermost contains the developing person and the objects and people he responds to on a face-to-face basis, as he experiences them, together with the links between these people and objects. This nexus of direct and indirect interrelations in the person's immediate setting, Bronfenbrenner calls "the microsystem".

At the second level, "the mesosystem" consists of the interconnections between settings like home and school or place of work. For example, what is known in one setting about another, the number of joint participants or conflicting role demands all influence the individual's development within each.

Similarly, at the third level, Bronfenbrenner visualises "exosystems", that is the relationship between settings in which the individual never participates, and his immediate environment, for example, between parents' place of work and the child's home.

Finally, at the fourth level, Bronfenbrenner recognises that given settings and their relationships are similar within and different between subcultures, as if, he continues, there existed a series of blueprints on which they are based. Such over-arching general patterns, together with their underpinning ideologies, he names "macrosystems".

Bronfenbrenner's approach, it will be seen, provides an overall perspective that helps emphasise the underlying continuity of the present work, which essentially consists of a series of social psychological experiments linked to existing research into mental retardation. In keeping with Bronfenbrenner's ecological emphasis, however, empirical work will be designed to explore and generate hypotheses and not always to confirm them. Thus, in the spirit of Everitt and Dunn (1983), analyses are intended to be exploratory as well as confirmatory.

Chapter 2 concerns the macrosystem - the area, Bronfenbrenner complains, is most often neglected: classification is first identified as reflecting the interests and purposes of the classifiers, rather than objective features of what is being classified. Thus, what mental retardation is believed to be, it is argued, is not only a function of retardates, but also of cultural histories. Similarly, between group differences in the conception of retardation can be related to the different norms held by group members.

In chapter 3, social classification is identified as a mechanism whereby elements of the macrosystem, specifically normative beliefs, can affect directly the perception of people labelled retarded. It therefore describes one pathway through which macro, meso and micro systems

interact.

In chapter 4, social identification theory provides a more realistic human perspective in identifying how conformity to normative beliefs (about retardates) is not automatic and inevitable, but dependent on the perceiver's self-definitions rather than experiential or dispositional factors.

Finally, in chapter 5 an attempt is made to include the retardate as an active participant in these processes. Social identity theory is reintroduced as a vehicle leading directly to conformity with normative beliefs and hence, to retarded behaviour that is role, not intrinsically determined. More important, social identity theory provides the retardate a means to fight back - to resist or avoid self-definitions that mediate retardation. In this way, the individual is seen as an active determinant in the development of his own mental retardation.

CHAPTER 2

What is mental retardation? Who is mentally retarded?

The first umpire said, "I calls it as it is". The second said, "I calls it as I sees it", while the third umpire said, "It ain't nothing until I calls it".

Richardson (1975), p. 93

1. Introduction

The previous chapter mentioned the fundamental importance of categorisation which brings order and meaning to the buzzing confusion of stimuli that would otherwise impinge upon us.

In keeping with this notion, Mercer (1973), calls the questions "what is mental retardation, really?" and "who is mentally retarded, really?" nonsense questions, because:-

Persons (objects and events) have no names and belong to no class until we put them in one. Whom we call mentally retarded, and where we draw the line between the mentally retarded and the normal, depend upon our interest and the purpose of our classification. The intellectual problem of mental retardation in the community is, ultimately, a problem of classification and nomenclature.

1973, p. 1

In other words, the definition of mental retardation, like other definitions, is not an absolute, but a matter of social consensus, the evolution of which is embedded in cultural heritage. Similarly, she argues, what mental retardation signifies and how it is understood, depends on the underlying paradigm. Mercer then identifies two paradigms relevant to mental retardation, that are medical and social in orientation.

2. The medical model of retardation

It is widely agreed that the medical perspective is the paradigm underpinning professional and academic involvement with mental retardation. (e.g. Mercer, 1973; Booth, 1978; Wolfensberger, 1965). Because of its pervasiveness, Mercer argues, its assumptions are seldom examined - it is self evident that something is wrong with an adult who cannot read.

Medical concern is aroused when pathological symptoms (that is, those that tend to damage the organism) become apparent, and from patterns of these, the presence of various disease entities is abstracted, although the disease takes its course whether or not it is diagnosed. Because humans are similar, biologically speaking, the medical model is universal, in the sense that specific constellations of symptoms always signify the same disease. Similarly, the disease, not the person in whom it is lodged, is the object of interest.

From this perspective, "normal" is a residual category consisting of those free from pathology. Thus the medical model is bipolar and clearly evaluative. At one end stands normality which is equated with health, and at the other, abnormality, associated with sickness and disease.

Co-existent with this, Mercer argues, is a second definition of "normal", based on Gauss's normal curve, which describes frequency distributions of characteristics within

populations. In this case, abnormality is defined in terms of the extent of deviation from the mean, the range within one standard deviation, which comprises 68% of the population, usually being designated normal; between one and two standard deviations from the mean, low or high normals, (each comprising 13.6%) and those beyond two standard deviations from the mean, abnormally low or high (2.3% each).

By definition, therefore, there are always two zones of abnormality delineated by a normal curve. Whether the tail above or below the mean, or both or neither is considered "bad", depends entirely on the characteristic in question.

For this approach to operate meaningfully, several conditions must be met. First, it is essential that the characteristic be normally distributed. For example, a distribution of the heights of men and women would be bimodal. The mean would be uninterpretable and most men and women would be designated abnormally tall or short, respectively. Second, each criterion of normal is only applicable to members of the population from whom it was derived. Thus, a member of any group whose mean differs from that of the population, will be found abnormal, like a woman whose height is judged against the heights of men. In this sense, minority groups are abnormal, by definition.

The statistical model applied to IQ scores is the mainstay of the American Association on Mental Deficiency's (1961)

widely used definition of mental retardation (Heber, 1961). Scores are standardised to have mean 100 and standard deviation 15 and individuals falling within the IQ range 85 to 115 are normal. Those one to two standard deviations below the mean are "borderline", (70 to 85), and those two to three standard deviations below (55 to 69), "mildly retarded." Similarly, three to four (IQ 40 to 54), four to five, (25 to 39) and more than five standard deviations below the mean are designated moderately, severely and profoundly retarded, respectively.

The crucial point, Mercer points out, is that the dominance of the medical model of mental retardation has led to a tendency to evaluate statistically defined abnormality in pathological terms. As Mercer puts it:-

IQ which is not a biological manifestation but is a behavioural score based on responses to a series of questions, becomes conceptually transposed into a pathological sign carrying all the implications of the pathological model. Statistical abnormality is equated with biological pathology without any evidence based on functional analysis that this statistical sign is related to the biology of the organism or that it has any functional relationship to system maintenance.

1973, p. 6

This is particularly serious, because pathological conditions identified by characteristic patterns of symptoms, as, for example, in Down's syndrome, can only be distinguished in one third of cases at best (e.g. Malin, Race and Jones, 1980; Kushlick and Blunden, 1974), and indeed, Hughes (1975) puts the figure as low as 15%. In the rest, the major "symptom" is a low score on an IQ test

from which, the undetectable condition, "minimal brain dysfunction" is abstracted, although the logical basis for assuming its presence is non-existent. Thus, the medical model is inappropriate for up to 85% of the subnormal population. As Brooks and Baumeister (1977) put it, retardation in these cases, results from a theory of intelligence.

The medical perspective determines a constellation of questions and assumptions about retardation, which are essentially the same as those asked about diseases. For instance, efforts are made to determine its etiology, and taxonomies of possible genetic and environmental factors have been constructed in the hope that the causal chain may be broken and retardation prevented or cured. It is interesting to note, however, that environmental factors like social disadvantage, are only relevant because they are assumed to cause organic damage that leads to pathology.

Similarly, Mercer points out, pervasiveness of the medical perspective has led to an emphasis on diagnostic tools, like IQ tests and research that is biological or mechanistically psychological in orientation. According to Brooks and Baumeister (1977), and certainly in keeping with Bronfenbrenner (1979) and the present approach, these make a science of missing the point, since, in ignoring the context of behaviour, they lack ecological validity. Examples include Zeaman and House's (1963) theory that retardation is an impairment of attention-directing

mechanisms, Ellis's (1963) famous hypothesis that it is lack of persistence of the stimulus trace and Spitz's (1963) theory that it is inadequate neural satiation.

Such biological based research, Mercer continues, has led to the proliferation of complex nomenclature and an associated, mutually supportive professionalisation of those trained to deal with it.

Finally, Mercer describes a fundamental code that it is worse for a physician to dismiss an ill patient than for him to retain a well one, since the former error might threaten life, while the latter does little harm. In the case of mental retardation, however, this may cause conflict when tempered against the risk of the social consequences of mislabelling.

3. Mercer's social model of retardation

During her community based research, Mercer states, it quickly became apparent that the medical model was inadequate for conceptualising mental retardation. Consequently, developing a wider perspective became a major priority. The resultant model is based on a view of society as a network of interlocking social systems, each of which consists of social statuses, roles and norms which she later adds, (Mercer, 1977) are pervaded by the cultural values of the most dominant political group. From this perspective, mental retardation is a role associated with the achieved status "mental retardate".

In more detail, social statuses are positions in society which people occupy by virtue of certain behaviours or unchangeable characteristics, like age or sex. Many have titles by which the occupants are known, like "doctor" or "woman".

A social role is the behaviour associated with a particular social status, and the common expectations which delineate roles within a society are known as the social norms. This introduces a third meaning for "normal", as behaviour that fulfills a prevailing social norm. Once again, therefore, "normal" is non-evaluative. Its meaning depends on the norm in question.

Clearly, in order for a social system to survive, individuals will be socialised into behaving normally, that

is, into performing the roles associated with their social statuses. Strategies to deal with deviance include punishment or ultimately, banishment from the system altogether. Alternatively, a devalued status might be created, to which the deviant individual is assigned. In Mercer's opinion, mental retardate is one such devalued social status. For example, schools may be considered as social systems that create special classes for children whose behaviour deviates in certain ways from that expected of (middle-class white) pupils. Redefined as retardates, however, their behaviour becomes normal. Precise expectations vary between schools, thus the same child may be a retardate at one, but a pupil at another. Similarly, an individual's status might also change according to the succession of roles he holds through life. Thus, one who was retarded at school might excel in other fields.

The important point is that an individual who does not occupy the retardate social status in any of his sphere of social systems, is not mentally retarded. Whatever pathologies lie hidden within him, if he does not play the mentally retarded role, his behaviour does not reflect mental retardation.

A brief resume of the thrust of Mercer's (1973) work, summarises the major differences between medical and social perspectives:

in America's Riverside community, Mexican-American and to a

lesser extent, black children, seemed over-represented in the population of retardates. However, it quickly grew clear that many were functioning perfectly at home and in the community, despite being labelled mentally retarded at school. In other words, their retardation was a function of where they were, which cannot be explained within the medical model.

A social system epidemiology was therefore conducted in order to discover not only the characteristics of retardates, but also the normative structures that influenced the numbers achieving the status.

Mercer focussed on the school system where, it transpired, children were given cognitive tests that had been standardised on middle class Anglo-whites, and which reflected mainstream cultural values like English verbal skills, arithmetic and abstract conceptual reasoning. Judged against these, Mexican-Americans and blacks were minority groups, and hence, scored abnormally low. Low scores were interpreted to indicate something wrong with the children, as Jones (1972) would say, they were assumed to be missing something. Since for the most part, no pathology could be found, it was assumed they must suffer from minimal brain dysfunction. Thus, they achieved the status mental retardate within the school system. In this light, it is not surprising that Wolfensberger (1965) goes so far as to advise parents of children who are probably near IQ 60 to "avoid by all means available" school testing and evaluation

of their children.

More recently, Tomlinson (1982) has similarly examined why West Indians are over-represented among British children receiving special education, and although she does not mention the medical model directly, she criticises the assumption that retardation is intrinsically determined. Apart from culturally biased cognitive tests, she implicates the stereotypic beliefs of referring Head Teachers, who, she found, tended to assume West Indian children "naturally" less likely to benefit from normal teaching. Interestingly, she also notes that Asian children are under-represented, which she attributed to her finding that teachers believed them hard working, docile, obedient and eager to learn.

To go one step further, it is easy to see how the medical model facilitates racist thinking: since a high proportion of ethnic minorities have been diagnosed to have minimal brain dysfunction, as races, they must be biologically inferior. Indeed, there must be many retarded immigrants walking round unidentified and hordes waiting to migrate or mismanaging affairs in their countries of origin - the implications for attitudes and policies need not be elaborated.

The social point of view can encompass the medical model, which then becomes the normative structures of the medical social system, with pathologies or symptoms simply

representing deviance. A powerful analysis of the case histories of 46 severely retarded babies, (Booth, 1978) serves as illustration, since in all but two cases, the babies were normal into their second year and beyond, in that they fulfilled normal expectations. Even when they fell behind at developmental milestones, parents and doctors explained away deviance by laziness, for example. Indeed, when some physical problem, like a hare-lip could be envoked as an excuse, tolerance was excessive. Eventually, when the babies lagged far, far behind, their normal status could no longer be justified, and parents began a painful series of negotiations with professionals to define new subnormal statuses for their children.

Although as Booth intended, this clearly illustrates that retardation emerges as a social state, it is simultaneously possible to play devil's advocate and argue that the medical model is the better fit, because the children's fate was determined by the unfolding of pathologies lodged within them and that it was only the inadequacies of diagnostic tools, incompetence or reluctance that slowed recognition of this fact.

When clinical pathology is present, it seems, it is possible to argue for *both* models. Thus an approach explicitly combining medical and social aspects might be more appropriate. Wood and Badley (1980), offer a likely candidate.

4. Wood and Badley's model of disablement

Wood and Badley (1980), like Mercer, find the medical model of disease inadequate. Its preoccupation with biological dysfunction, they argue, leaves little room for the social, psychological and behavioural dimensions of illness, which may be the planes on which most difficulty is experienced.

Their model begins with impairments which are defined as abnormalities of body structure, appearance or system function (including mental systems), and which represent a deviation from some biological norm. They can be temporary or permanent, perceived or not perceived by the individual and they include congenital or traumatic losses and disfigurements together with the pathologies central to the medical model of disease.

Second, disability is the expression of impairments in compound integrated activities, characterised by deviation from performance norms in physical, psychological, or social tasks, skills and behaviours. In other words, disability refers to a permanent or temporary restriction or inability to perform an activity in the customarily expected manner.

Finally, handicap is a "disadvantage for a given individual, resulting from an impairment or disability that limits or prevents fulfillment of a role that is normal for that individual." (1980, p. 16). In the light of the previous discussion of social statuses, roles and norms, Wood and Badley's terminology is unfortunate, and a "role that is

normal" is taken to mean roles that are valued or customary. Thus, handicap refers to the disadvantage attached to behaviour that is not normal i.e. not adequately fulfilling a role.

Since normative expectations that define roles and hence, deviant behaviour, reflect current features of the relevant social system, handicap, it follows, is a social phenomenon.

A couple of examples clarify these terms:-

First, a facial disfigurement is an impairment but is unlikely to result in disability. In our society, however, it is likely to be a handicap for a woman, since normative expectations associated with that role, despite feminist influences, entail a fashionable face. For a man, on the other hand, this is less likely. Indeed, certain scars can even be socially advantageous. In other societies where women are veiled, the range of situations in which this entails handicap, clearly, are likely to be fewer.

In contrast, loss of a leg is an impairment likely to result in a range of disabilities, yet no handicap need follow. To illustrate, a colleague involved in a door-to-door census to ascertain the need for social services, found to his surprise, that several amputees were simply unable to think of any spheres in which they were disadvantaged.

Interestingly, this means that the individual can determine to some extent whether his disability entails handicap, by choosing the social systems in which he moves.

Although the concepts impairment, disability and handicap promised to be enlightening, when they are closely examined, they seem to generate more heat than light. To be fair, however, problems may be minimal within a medical context, only looming large in the present social psychological perspective.

The major difficulty seems to be distinguishing logically between disability and handicap. The former was defined as a restriction of "customarily expected behaviour or activity", (1980, p.15). However, expected behaviour, it will be remembered, defines a role. Hence the definition of disability is synonymous with that of handicap. For example, being unable to walk is a disability, but since human beings (over a certain age) are expected to walk, this disability is also a handicap.

A second problem is that Wood and Badley envisage an orderly progression from impairment through disability to handicap, each stage resulting directly from the former, (except that disability may be jumped in some cases, and secondary impairments like bed sores may sometimes be caused by disabilities like lack of movement.) Following Mercer's lead, however, a different model of normal, it can be argued, underpins each stage.

Impairment seems primarily based on the medical model of normal as an absence of pathology. Hence mental impairment would be a clinical state, like Down's syndrome.

(Confusingly, impairment is also described as a deviation from a biological norm, a terminology that implies both frequency distributions and normative expectations and hence, two other models of normal).

Disability, on the other hand, seems predicated on statistical models that define the normal range of various activities. Indeed, this has been exploited in order to operationalise it with reference to frequency distributions of skills within a national cohort of nearly 14,000 ten year olds (Haslum, St. Claire and Morris in prep). Thus mental disability would refer to a subnormal score on an IQ test.

Finally, handicap rests on the definition of normal as behaviour that adequately fulfills a role. Thus, mental handicap would be the disadvantages attached to inability to meet expectations associated with the pupil role, for example.

Hence, Wood and Badley's model straddles three paradigms, which implies a degree of logical independence between impairment, disability and handicap, at odds with the continuous progression they describe. Indeed, the hiatus between statistical and pathological abnormality has already been discussed - although to be fair, the fact that all mental disability is not necessarily underpinned by mental impairment does not mean that all impairment does not lead to disability. Nevertheless, in its 1980 form, Wood and Badley's model, seems at best to have only the same range of

application as the medical model, that is, to approximately one third of mental retardates.

Commonsense suggests that the link from disability to handicap is likely to be even more tenuous.

This introduces a final, personal difficulty. To me, handicap implies more than an inability to fulfill a role. Intuitively, it seems to cover being *debarred* from roles that might easily be accomplished because of assumptions about disability or reactions to it. Support for this idea may be gleaned from a colourfully unusual paper (Lax and Foley, 1977) which stages a lawsuit between retardates and "the people" who are, amongst other flagrant abuses, charged with "anticipatory breach of contract", that is, refusing retardates *opportunities* to perform. Again, to be fair, Wood and Badley might intend this interpretation, but if they do, their phraseology is ambiguous.

In conclusion, Wood and Badley's (1980) model of disablement does not, after all provide a way explicitly to link medical and social aspects of retardation that is useful for present purposes. It seems beset with conceptual difficulties and applies only to the minority of cases where pathologies are present. However, it has introduced several useful concepts. From now on, mental impairment will be used to refer to pathological conditions; mental disability, to behaviour below the normal range in frequency distributions of relevant activities, and mental handicap will be used to

refer to behaviour that deviates from customary roles, not only because of mental impairment or disability, but particularly because of responses and expectations associated with perceived mental impairment and disability.

This means that Mercer's social model of retardation remains the most useful. What makes a retardate different, therefore, is not simply capacity of mind, but the framework within which his behaviours are interpreted. Thus, mental retardate is a social status and impairments or disabilities merely increase the likelihood that it will be attained. Similarly, retardation is the role delineated by normative expectations into which retardates will be socialised.

The important implication is succinctly expressed by Kurtz (1981):

At any given time for any given individual it may not be possible to differentiate between behaviour that is a consequence of the retardation

(for which term, I would substitute "disability")

and behaviour that is a consequence of behaving as one thinks the expectations of others define proper behaviour.

p. 14

Thus, although a change in belief structures will alter the incidence of retardation since as Rutter et al (1970) pointed out, the numbers of handicapped depend on the criterion of handicap adopted, such changes might also reshape the behaviour of retardates and the severity of

their handicaps. In short, within a social framework, the beliefs of others provide a locus of intervention.

5. Some social sources of mental retardation

To recap, from the present point of view, normative expectations define the mental retardate role and hence, mental retardation within social systems, and the underlying assumptions elaborate its meaning. This means that the primary source of mental retardation is in normative beliefs, not in its victims.

Clearly, the process by which expectations become associated with retardation or indeed what amounts to the same thing - how a particular range of stimuli comes to be categorised as mental retardation - must be remarkably complex. Eiser (1979) suggests historical, sociological and psychological factors are all involved. Both Tajfel (1972) and Mercer (1973) suggested an heuristic key:- that categories reflect the interests and purpose of each social system within its context. Indeed, Tajfel further suggests that the conceptual content of categories might serve to facilitate understanding of complex situations, or to justify actions. Exploring this hypothesis from cross cultural and historical perspectives is a task far too wide to attempt here, and therefore, a few favourite sketches must suffice to illustrate something of the influences likely to determine mental retardation in other places and at other times.

Peters (1980) bemoans the dearth of cross cultural data on mental retardation and goes some way towards remedying the situation with a fascinating study of the Tamang of Nepal. Contrary to the popular assumption that mental retardation -

at least in its milder forms - is unlikely to be noticed in non-technical, rural societies where education is unemphasised, Tamang peasants have evolved a complex classification system based on linguistic competence.

The most severe category, Peters translates as "dumb" with its connotations of both mute and stupid. People with Downs syndrome fall into this class, but interestingly, primarily because of speech dysfunction. Indeed, Peters met an individual with no stigmata but a severe impediment who was "dumb". "Half-dumb" is the Tamang analogue to moderate retardation, which encompasses individuals with less severe impediments, said to be slow learners but good workers, often earning more than "normal" people. For the most part, however, lack of self-sufficiency was associated with being "dumb".

In Tamang society, male heads of households are believed to require great intelligence. As farmers, their duties include bartering to buy necessities and sell produce, which is clearly dependent on verbal adroitness. In addition, recital of mantras is believed vital to ensure prosperity, freedom from bandit attack, success in household tasks, farming and so on. Thus, it is easy to see how speech evolved as the criterion of skill and self-sufficiency.

Interestingly, Peters confirms Mercer's prediction that the individual's status is a function of the social system in which he moves, since those with normal intelligence but a

speech impediment would be "dumb" among the Tamang but not retarded here, whereas, retardates with unimpaired speech would not be "dumb" there.

As an aside, practical results of current cultural differences are exemplified (Upadhyaya, 1977) in adjustments made to American adaptive behaviour scales for use in India. For example, use of a knife and fork is not generally expected, but is confined to Westernised houses. Similarly, females are never expected to undergo long journeys alone and "children" are deemed incapable of managing their own affairs until marriage. Thus, a number of skills considered indicative of adaptive functioning in America, simply do not have the same meaning in India.

Finally, to return to the Tamang, "dumb" and "half dumb" males are not permitted to inherit land when they come of age. Hence, it might be that the underlying ecological function of the classification is to ensure the efficient management of resources.

Relatively uncomplex societies like the Tamang, isolated naturally by the Himalayas and artificially by Chinese policy, provide some of the few remaining opportunities to relate cultural beliefs to definitions of retardation, facilitated, no doubt, by a perceived simplicity conferred by its distance from ourselves. To try such an exercise for our own culture is complicated not only by problems of self-reference, but also by its greater (perceived)

complexity, and because of its size, cannot be attempted here. Time, however, provides a perspective from which a few salient and interesting themes become discernable.

Muir (1982), argues that retarded babies were thought to be changelings "until recently" in European folklore, and in an absorbing paper, Haffter (1968) examines the idea in greater detail:-

Changelings were believed to be children of demons or other spirits, who had surrepticiously exchanged them for human babies, because a changeling, suckled by a human, would acquire a soul and interbreeding would ennoble the fairy stock.

Changelings were attributed greed, strength and abnormal appearance, especially an oversized head. In addition, they were believed to cry incessantly, but to have no speech.

Clearly, mentally retarded children, particularly those with hydrocephalus or cretinism would achieve the status. Their lack of responsiveness was then seen as a sign of obstinacy and malice. In this form, the changeling myth provided a causal explanation for mental retardation which exonerated the parents. It also determined (and was determined by) subsequent actions, although Haffter points out that norms varied between communities, reflecting the ambivalence parents felt. Good treatment was coupled with the belief that the changeling brought luck and that the human baby might be returned along with fairy treasures. In contrast, barbarous treatment, often ending in infanticide sometimes

occurred in an attempt to force the fairy parents to rescue it.

The Christian church adopted the changeling myth to fit its own normative structures. The devil now performed the theft, and the blame was laid squarely on the parents who were presumed to have cursed the baby - or each other - to have been unchaste or otherwise ungodly. Treatment of the child was similarly merciless. Furthermore, the changeling status was extended to include offspring from copulations between women and devils. Bearing an abnormal child therefore could condemn a woman to the stake. Hence fear, dismay, guilt, secrecy, - even infanticide at the birth of an abnormal child increased. Despite attacks from independent thinkers, Haffter continues, cases of child burning continued to the turn of this century, and while such extremes (hopefully) have ceased, it seems likely that this uncharitable Christian influence not only caused untold misery throughout the ages but may still contribute to guilt felt by some parents today.

Although he makes no attempt to trace its origins, Kurtz (1981), argues that an image of retardates as subhuman organisms underpins legal denial of citizenship, human rights and privileges. Haffter adds that this idea is widespread in its attenuated form which views retardates as the descendents of more primitive peoples. He lists many examples, including Down's "mongols", and interestingly his lesser known Ethiopian, Malayan and Indian types of idiot.

Similarly, an image of retardates as eternal children leads to the belief that they should be cared for, protected and supervised, while the view that they are Holy Innocents is associated with the belief that they are incapable of voluntarily committing evil.

According to Clarke and Clarke (1974), the first statutory mention of the mentally subnormal, which occurred in the thirteenth century, came to fruition in the Statute of Prerogatives in 1325, under Edward II. This drew a division between born fools and lunatics, possessions of the former reverting permanently to the Crown, while those of the latter were reclaimable during periods of lucidity. Thus, as Lax and Foley (1977) suggest, it seems fair to comment that early lay norms concerned causal attributions and emotional responses, whereas legal systems functioned to define rights and facilitate the disposal of property. Interestingly, in defining what roles the retardate is permitted to occupy, the legal framework represents a formalisation of handicap.

Malin, Race and Jones (1980) quote Locke (1689) as distinguishing between madmen, who "put wrong ideas together" to reach bizarre conclusions, and idiots, who seemed to have few ideas and to make little attempt at reasoning: just as Freud's patients are said to be distinguished by Freudian dreams, so Locke's retardates were noted for their appalling lack of logic! In other words, his categories seem to reflect the norms of a philosophers'

social system.

Tomlinson (1982) emphasises the role of vested interests in shaping treatment of the retarded and she attributes the seeds of special education in the mid nineteenth century almost to a conspiracy between (1) political leaders, who used it to control a potential troublesome group; (2) medical men, who assumed care and control of defectives in order to promote their claim to professional status; (3) educationalists, who achieved both smoother running of regular classes and more employment for themselves and (4) industrialists, who removed the non-productive from work houses and better still, ensured further supplies of docile workers for a small investment in special training.

Tomlinson's approach, however, does not fit into the present approach because it seems to see the collective interests and purposes of social groups as nothing but the sum of selfish individual motives.

This criticism is not intended to imply that individuals played no part in shaping social policies and opinion.

Indeed, Goddard (1912) quoted by Clarke and Clarke (1974) is hypothesised to have awakened the public to the social and economic burdens of the feebleminded. Women, in particular, he condemns as immoral carriers of venereal disease and prolific procreators of defective children. His interests as a breeder of livestock probably coloured his view, but the currency of Darwinian theory, the new science of genetics together with the development of IQ testing and

the notion of intelligence as an inherited characteristic, coupled with the financial hardships of the day must have provided a climate in which such eugenic attitudes flourished.

Then current legislation seemed to reflect these beliefs. Malin, Race and Jones (1980), point out that the 1913 British Mental Deficiency Act centred not on intelligence but on the wider concept, "mind", which included moral sense and social conformity. It distinguished between idiots, who were so defective as to be unable to guard themselves against common physical dangers, and imbeciles, who though less defective, remained incapable of managing their affairs. The feebleminded though still less defective, required supervision and finally, moral defectives were those whose mental deficiency was coupled with criminal tendencies or immoral behaviour. Great emphasis was laid on the institutionalisation of defectives and on the basis of subjective evidence, individuals suffered unending incarceration in order to "protect" society, which, Tomlinson adds, was seen as an act of charity. Increased vigilance and the fact that certification was likely to be permanent, meant that isolated institutions grew in number and size, typically to accommodate upwards of 2,000 inmates. Workhouses and lunatic asylums frequently had to be commandeered.

It is a reasonable assumption that an attitude survey at that time would have revealed beliefs relating to

threateningness, sexual impulsiveness and a reluctance to work. Such beliefs, however, have prevailed into the present time. According to Lax and Foley (1977) the Nebraska Supreme Court in 1968 was of the opinion that "it is an established fact that mental deficiency accelerates sexual impulses and any tendencies toward crime", with the result that compulsory sterilisation for some retardates was upheld. Biklen (1977) argues that these myths have led to the erosion of retardates' right to be assumed innocent unless proven guilty and many other mistreatments in America's Criminal Justice System. In Britain, as late as 1952, the eighth edition of Tredgold's book suggested the "painless termination" of the 80,000 imbeciles in the country.

More recent British legislation relevant to retardates is immensely complex, being intertwined in political and bureaucratic manoeuvring (Malin, Race and Jones 1980) and a nexus of policies relating to health, education and social services. Farley (1983) comments on the piecemeal development of special education, which Tomlinson (1982) suggests, is because it was shaped by professional conflicts rather than progressive humanitarianism. Plainly there is no simple isomorphism between legislation and community beliefs: nevertheless, a few broad trends might be identified.

The 1944 Education Act, for example, excluded children thought unable to benefit from education. These were to be

dealt with under the Mental Deficiency Acts and given treatment in training centres and other places overseen by local health and welfare authorities. The 1946 National Health Service Act, on the other hand, passed control of institutions to newly appointed Regional Hospital Boards, making "colonies" "hospitals" overnight and it seems likely that these two changes would have increased the sway of medical perspectives on retardation.

In their review of the provision of services in Britain, Malin, Race and Jones (1980) argue that new research during the 1950's and 60's showed many retardates benefitted from training and could do valuable work in the community, yet failed to influence government policy. New mental retardate roles, it is hypothesised, may nevertheless have been defined within a few social systems, since a few hospitals undertook to train inmates, having adjusted their expectations, and hence, the behaviour of retardates, as a result of the new ideas. Such initiatives, Malin et al note, came from outside the caring professions, within which earlier attitudes prevailed. This is important, because many of those entering training then are the policy makers of today.

It was a new interest in Civil Liberties together with the publication of cases of cruelty, neglect and wrongful detention rather than scientific research that led to a change in the legal definition of retardates, and the 1959 Mental Health Act, which remains current today, was designed

to be protective and to avoid compulsory detention except as a last resort. It designated severely subnormal people as those incapable of leading independent lives and protecting themselves from exploitation. Subnormal people were those requiring or susceptible to medical treatment and finally, psychopaths were defined as abnormally aggressive. It was specified however, that immoral behaviour per se should not be taken to indicate any of these conditions. Nevertheless, Malin et al point out, the act remained concerned with specifying the machinery of detention and the responsibilities of administering authorities. It mentioned community care, but proposed no specific guidelines, so very few authorities set up hostels and essentially, the status quo, that is, hospitalisation of retardates who were not cared for at home, was maintained.

The Seebohm Report (1968), led to the setting up of Social Services Departments to provide community care, although lack of resources, objections from the medical world, fear of public reaction and sheer inertia meant that hospitalisation endured for most. It also led to the Education (Handicapped Children) Act of 1970 which abolished the idea of ineducability and required Local Education Authorities to educate *all* children. At the same time, the Chronically Sick and Disabled Persons Act (1970) was intended to enable handicapped people, including retardates, to live in the community, and more recently, the Warnock Report (1978) which reviewed educational provision for

handicapped children, and the Education Act (1981) have attempted to abolish categories of handicap and to move that all children with learning difficulties receive educational provision which should be in ordinary schools wherever possible. Finally, there is a growing current interest in further education for retarded school leavers (Farley, 1983).

To summarise, a longitudinal study of beliefs about retardates might have shown early superstitions were superceded by a preoccupation with morality and economic sufficiency. Then might have followed a waxing of the medical model which probably remains normative in the caring professions today. More recently, a relatively pitying attitude and an outspokenness against cruelty and neglect, might be evolving, and while it would be foolish to imagine widespread familiarity with each new piece of legislation, an emphasis on education and integration as opposed to medical pathology might also be evolving. However, since Kurtz, (1981) insists that old beliefs die hard, each of these threads probably remains.

Hospital boards, social services departments and education authorities together with the legal network and less officially, the general lay public or any other community, in the present view, represent social systems, each with its own definition of retardation. In Bronfenbrenner's terminology, they also represent the macrosystem and at a lower level, elements of the exosystem. Since social

6. Empirical studies of beliefs about retardates: a review

Even a brief examination of the literature confirms the complaint that research into beliefs about retardates is almost entirely American, and perhaps not directly relevant to Britain, (Pushkin, 1976). Such an examination also suggests that the body of literature has grown little in recent years. Whereas in 1970, Latimer wrote that attitudes towards mental retardation had become the "In Thing", in 1983, it seems fair to comment that they are rather "Out". Perhaps the earlier growth was nourished by the initiation of integrative policies, only to starve when, as Malin, Race and Jones (1980) argue, they were not widely enacted.

Nevertheless, the literature is large and varied enough to be intimidating. Harth (1973) for example, remarks that studies are scattered without a consistent theoretical base while Gottlieb (1975a) writes that they are confusing and contradictory. In the present opinion, this reflects a preparadigm stage and the social systems approach provides a much needed paradigm which brings structure and meaning to the literature: the previous section showed, different social systems are likely to evolve different beliefs about retardates for different purposes. Thus, even apparently contradictory beliefs may become logically consistent when their contexts and functions are considered. The task will be attempted in two stages, according to a natural division between lay and professional beliefs - loosely defined as people who do not work with retardates and those who do.

6a. Lay concepts of retardation

In a famous chapter, Guskin (1963) presents two brief studies. In the first, 50 subjects from Nashville, Tennessee rated a hypothetical 18 year old boy (1) from high school and (2) from special school, on a series of adjectives. Results showed the latter was considered less assertive, capable and normal, which, from the present point of view, represent some of the deviant behaviours that define the retardate role. Interestingly, traits like friendly, likeable, happy and good natured distinguished him least. On these, he received a marginally positive rating not far below that of the average 18 year old.

In his second study, Guskin asked 35 students to rate the similarity of 10 hypothetical boys to each other. They judged "mentally subnormal" most like "mentally ill", followed by "emotionally disturbed" and "delinquent" and least like "average" followed by "athlete" then "Doctor's son". Since "mentally subnormal", was the role that deviated most from average, it might be predicted, it would have been associated with the most negative evaluation.

In 1963, Guskin pointed out that his two preliminary studies seemed all that were available. Ten years later, the position had not changed much, and Pushkin (1976), (who seems to have missed Guskin), complains that only 2 American studies (Latimer, 1970; Hollinger and Jones, 1970) had been carried out in the 20 years preceding hers.

Pushkin begins by asking 49 Mancunians what it means to say

someone is mentally retarded. Thus, her study is particularly valuable because subjects were free to use their own descriptors, eliminating the fear that measures were not the most relevant. Approximately half referred to "intellectual impairment" and "social incompetence" in their definitions. Five confused mental retardation and mental illness from the onset, with a further 12 going on to make "contradictory remarks".

Subjects were then asked to list characteristics of people they knew to be retarded. Abnormal appearance was mentioned most often, followed by abnormal behaviour, verbal interaction and movement. In more detail, a woman was defined as subnormal because she always stared at the floor when she walked, occasionally stamping or stopping to pick up bits of paper. Such attributes, from a social system perspective, define retardation. In Pushkin's view, however, they seem to indicate that Mancunians are wrong.

This woman's behaviour as described in the interview can hardly be taken as an indication of mental subnormality.

p. 6

This condemnation can be criticised because it is self contradictory - the behaviour having just been described precisely *because* it was taken as an indication of subnormality. More important, however, it leads Pushkin to conclude that lay people and researchers have different concepts of retardation and to imply that this means the former are wrong.

Similarly, Latimer (1970) concludes that "ignorance and misunderstanding" about retardation is widespread in America. A random sample of 1113 was interviewed across three States (although it is worth warning that the random technique involved daytime household visits, with the result that 78% were female). Eighteen per cent gave "vague, confused or unconventional" definitions of retardation. Thirty per cent had no idea of its etiology, 55% did not know it could be prevented and 31% "ignorantly" believed it could be cured. Finally, 6% confused mental retardation and mental illness.

Latimer makes no reference to the model she measures their responses against, but her interest in etiology, prevention and cure, her consultation with "professionals" together with Mercer's (1973) argument that the medical perspective is so pervasive that it is seldom made explicit, are strongly suggestive. Like Pushkin, she finds differences between professional and lay beliefs represent a contradiction which implies that the latter must be wrong.

Within the present perspective, however, differences do not mean someone is mistaken, but on the contrary, that different interests and purposes are being served.

Retardate, it will be remembered, is conceptualised as a devalued social status created to deal with deviance and at the most superficial level, it may be hypothesised a priori, that the uninvolved layman needs to deal with deviance that might casually be encountered in the community. In other

words, his view of retardation is likely to include odd appearance, gait or behaviour and perhaps the occasional embarrassment of a deviant conversation. This idea is supported by the writings of Richardson (1975) who lists ugliness, bizarre clothing and clumsiness together with inappropriate behaviour and slow oversimple or incorrect speech among the key characteristics of retardates in lay systems. It also suggests that the widely reported confusion between mental retardation and mental illness might be because either explains the type of deviance likely to concern the layman.

To take the argument further, Latimer also investigated knowledge of community services for the retarded. She describes as "woeful ignorance" the fact that 60 - 75% of subjects not living near institutions could not name them correctly or give an account of their facilities. However, only 2 per cent of her sample were involved in caring for a retarded person. For the remainder, information regarding community services was likely to be of no interest or purpose as would a professional-type view of retardation held by a layman. Thus Gottlieb's (1975a) comment that the general public might not even be aware that mild retardation even exists, does not necessarily mean that they are uninformed, but that they have no need of the information.

From this point, it is easy to predict, as Guskin (1963) does, that the concepts parents hold about retardates will

reflect an interest in protection, caregiving and control, but unfortunately, I have been unable to discover any directly relevant data, since the few studies seem to focus on the effects of variables like religion, psychological adjustment and severity of child's impairment on parental adjustment (see Harth (1973), for example). Nevertheless, two are worth mentioning, although they do not describe parents concepts of retardation per se. First, Hoffman (1965) found Catholic parents to be most accepting of their retarded child, which he attributed to their belief in the dogma that suffering is a part of life. Christian Scientists on the other hand, tended to deny the diagnosis and seek magical cures, whereas Fundamental Protestants were characterised by guilt, believing their child's retardation to be a punishment for their shortcomings. Thus, like the folklore described in the previous section, current beliefs still seem to reflect various religious norms. In the second study, Meyer (1980) found parents of institutionalised retardates, somewhat contrary to expectations, were not in favour of deinstitutionalisation. This suggests that their belief structures accommodated the practical problems of caregiving rather than a fashionable notion of what is best for retardates.

Like Pushkin and Latimer, Hollinger and Jones (1970) also found "little understanding" of "mental retardate" and "slow learner". The latter term had been adopted 23 years previously at the start of Ohio State's special education

program, because it was believed more acceptable, and using a sample of 114 subjects, a representative cross-section of a small city, the authors vindicated the decision.

Hollinger and Jones went on to ask for definitions of "mental retardate". Thirty four subjects mentioned neither subaverage intellect nor social incompetence, thus completely "misunderstanding" the term. Seventy per-cent "misunderstood" "slow learner" on the other hand, and 72% "mistakenly" thought slow learners and retardates were different. In other words, the terms differed in meaning as well as acceptability, but because "slow learner" had been substituted for "mental retardate", Hollinger and Jones seem to assume it should differ only in acceptability. They agonise whether the public should be educated to this "fact", which is likely to result in the "pessimism and denegration" commonly attributed to "mental retardate" being transferred to "slow learner". Their position seems precarious for two reasons.

Two later studies illustrate the first. Gottlieb (1975) found, ^{the label} "mentally retarded children" was more favourably rated than "mental retardates" and Gottlieb and Corman (1975) found that 86% of their subjects defined a mentally retarded child as a slow learner. Thus, although Hollinger and Jones cannot be blamed for lack of clairvoyance, it seems self-evident that "slow learner" involves connotations of school, education and children, and unlike "mental retardate", to be confined to the least threatening cases

with the best prognoses. Most probably, the Ohian authorities were well aware of these differences and viewed them as advantages, not mistakes. Second, and even more precarious, Hollinger and Jones seem to be in what Mercer might call a nonsense position, since they seem to have decided in a vacuum what mental retardates and slow learners "really" are.

To summarise the first theme suggested by the present paradigm, beliefs about retardates are hypothesised to define retardation within social systems, in ways that reflect normative interests and purposes. Thus, beliefs of professionals - and researchers - simply reflect norms, most probably predicated on the medical model, and not absolute truth. Beliefs of laymen, parents and other groups that differ from these, it follows, are neither wrong, confusing nor contradictory, but merely different.

To begin a new theme, Hollinger and Jones go on to make the important point that public beliefs can determine the success of programs designed to help retardates. Clearly, if "slow learner" had been offensive, it is unlikely that Ohian special education would have seen its twenty-third year. Similarly, Gottlieb and Corman (1975) argue that integrating retardates into the community cannot succeed without public acceptance, the underlying assumption being that more enlightened treatment occurs when beliefs are positive. This philosophy implicitly underpins the lay studies already reviewed, and in the same vein, Lax and

Foley (1977) write:

much of the difficulty faced by the retarded in employment situations is attitudinal.

p. 7

A well known study by Greenbaum and Wang (1965) supports (indirectly) their claim, since 68 executives drawn from business clubs had a more negative view of retardates than paraprofessionals, parents of retarded children and professionals. Interestingly, their lowest rating was on a scale relating to reliability, which might be expected to be of relatively more concern to potential employers. More recently, Butt and Signori (1976) studied the social images of 8 groups, (average adults, women, mental retardates, ex-mental patients and criminals, hippies, blacks and North American Indians) on 67 variables known to be important in hiring situations. Factor analyses yielded six dimensions relating to appearance, sincerity, ability, outspokenness, fortitude and security. Retardates were most handicapped on ability but did well on sincerity and security. However, since subjects were members of a university community and not employers, these results most probably simply reflect lay beliefs.

Similarly, the beliefs school children hold about retardates are hypothesised to determine the success of classroom integration, but despite their importance Gottlieb and Gottlieb (1977) complain, little reliable data are available that describe their nature.

In their study, 56 junior high school pupils, predominantly

from low socio-economic backgrounds, rated hypothetical mentally retarded and physically handicapped children on 14 positive and 15 negative adjectives. Unfortunately, a full summary of results is not given, but "smart" and "bright" distinguished most between targets: only 3 and 9 subjects applying the terms to the retarded child whereas the relevant figures for the physically handicapped target were 34 and 31. Less than 10% rated the retarded target dirty, healthy, alert, greedy and selfish and the physically handicapped target crazy, dirty, dumb, greedy, selfish, stupid and ugly. This is difficult to interpret, but perhaps Gottlieb and Gottlieb intend to suggest that non-alert, unhealthy, crazy, dumb, stupid and ugly distinguished the retarded target further. Results unequivocally demonstrated, however, that the mentally retarded child was given a significantly more negative evaluation, replicating what the authors called the major point of agreement, which is supported by other studies like Strauch (1970); Willey and McCandless (1973) and Reese-Dukes and Stokes (1978) to name just three.

In a less formal study, Clark (1964) asked 214 14 year old school children to tell about the mentally retarded child whom they knew best out of the 13 in their school.

Interestingly, descriptions concerned appearance and athletic ability, not academic skills. Similarly, Gottlieb (1975) points out that retarded children are earmarked by their normal peers because of anti-social behaviour and

unusual appearance. Analogous to lay beliefs, therefore, it seems that school-children do not have a model of retardation like that of professionals, but are probably more interested in what interaction with a retardate is likely to mean for them. Only a quarter of responses, Clark continues, were evaluations, 2.25% being unfavourable. This finding has serious implications because many studies seem simply to assess whether beliefs about retardates are "good" or "bad", and clearly, this unidimensional approach might overlook much relevant and valuable information.

Clark's study, however, might not be pertinent to the present approach because it is possible that subjects described a particular retarded child rather than characteristics of retarded children. In other words, results might represent personal pictures rather than the shared norms defining retardation in the school's social system. Unfortunately for the present approach, this problem is widespread since few studies seem to concern children's beliefs about retardates per se. Instead, they seem to focus on evaluations and sociometric ratings of specific retarded children (e.g. Goodman, Gottlieb and Harrison (1972); Gottlieb and Budoff (1973)).

The idea that concepts of retardates determine whether they will be accepted, seems to have motivated a great deal of research effort directed at identifying individual differences that correlate with beliefs. Unless these are discovered, Gottlieb (1975a) writes, attempts to improve

attitudes are likely to be largely unsuccessful.

Jordan (1971) for example, lists age, sex contact and values as important, and one or more such variables are frequently included in experimental designs as a matter of course.

A study by Gottlieb and Corman (1975) on the impact of subjects' age, sex, education and contact with retardates on beliefs, is typical. Four hundred and thirty adults completed 48 statements about retarded children. Results were factor analysed and 4 dimensions emerged. First a **positive stereotype** loaded highly on health, morality and appearance; second **segregation in the community** loaded on beliefs that retarded children lower property values and should be kept apart. Third **segregation in the classroom** posited that they hold back other children and should be taught separately, and fourth, **perceived physical and intellectual handicap** reflected the belief that retarded children look different and are inferior.

ANOVA revealed that younger subjects (aged 20 - 30) were less likely to accept the positive stereotype, but also less likely to favour segregation in the community and classroom. Females tended to hold the positive stereotype more strongly and subjects with a medium education were less likely than poorly or highly educated others to view retarded children as different and inferior. Finally, those with contact were less in favour of community segregation.

In broad terms, these findings are consistent with many others.

Harasymiw (1971) and Carroll and Reppucci (1978) for example, found women to be more positive towards the handicapped in general, whereas Parish, Dyke and Kappes (1979); Greenbaum and Wang (1965) and Siperstein and Gottlieb (1977) together with Voeltz (1980) found women teachers, women and schoolgirls, respectively, more positive towards retardates.

The positive effect of contact was replicated by Hollinger and Jones (1970), who also found subjects with the closest contact - a retarded family member - were most accepting. Similarly, Jaffe (1966) and Efron and Efron (1967) found adolescents and college students reporting social contact with retardates assigned more favourable attributes to them than those who had none.

Findings with respect to education seem less consistent. Greenbaum and Wang (1965), found subjects who had not completed high school were more favourable towards retardates than those with more education. Hollinger and Jones (1970), on the other hand, found subjects who had had more education about slow learners were more positive.

Just a few studies have examined the effect of social class. Gottwald (1970) found it had no impact on attitudes to the retarded, whereas Greenbaum and Wang (1965); Goodman, Gottlieb and Harrison (1972) and Gottlieb and Budoff

(1973) found low class subjects were more favourable than their middle or high class counterparts.

Finally, Hollinger and Jones (1970) found younger subjects consistently more positive in their beliefs, whereas Greenbaum and Wang, (1965) reported no significant age effects, but a trend for younger and older subjects (under 40 or over 56) to be more positive and negative, respectively. Voeltz (1980) on the other hand, found accepting attitudes increased steadily with (school) age. More recently, Gottlieb and Switzky (1982) factor analysed ratings of 585 American schoolchildren (aged 9 to 12) on 30 stereotypic traits. Older children scored less on a negative stereotypic factor but failed to score more on a positive one, whereas on the remaining two factors, which related to likeability and unhappiness, they scored more positively and less negatively respectively. In other words, there was no smooth age-related trend.

Such research seems underpinned by an assumption that intra- or inter- individual factors determine beliefs and that beliefs within demographic groups are an average of those of individual members. To borrow some computer jargon, it seems largely predicated on a bottom-up approach with the individual as the unit of analysis. This is at odds with the present view in which beliefs evolve in interaction with the normative interests and purposes of social systems. For example, it will be remembered that institutionalisation was not represented as the result of a

widespread belief that retardates are dangerous. Rather, both policy and belief were seen as co-evolving, influenced by scientific developments, economic pressure and the like and, each other. In the present opinion, therefore, females tend to be more positive than males not because they are inherently different, but because they conform to different social norms. Similarly individuals with contact are viewed as members of different social systems to those without. The less consistent effects of age, education and class become easier to understand in this light. They might be due to a failure to control for sex and contact effects, but more likely, they interact with professional social systems. By now, it should be clear that beliefs are seen as unlikely to be an immutable block to integration. On the contrary, integration is likely to result in an accommodating change of normative structures and therefore, probably offers a mechanism to facilitate the development of accepting attitudes.

This reasoning is supported by the so-called Machiavellian approach, (Willms, 1981) in which public resistance to community integration is overcome by keeping plans secret until they are accomplished. Indeed, Willms went on to demonstrate that lay attitudes improved with proximity to such homes. A second source of support is to be found in an interesting study in which Voeltz (1980) examined the attitudes of 2,392 Hawaiian school children. Schools were selected to represent 3 categories: low contact, where

severely handicapped children had been enrolled for a term; high contact, where they had been admitted for over a year and a systematic program promoting integration had been implemented and finally, no contact, where handicapped children were not accepted.

Dependent measures were 21 items relating to the acceptance of retarded and physically handicapped children. These were factor analysed, yielding 4 dimensions: social contact willingness; deviance consequence, which was defined as rejection of the idea that handicapped children should be isolated and actual contact Type A, with retarded and Type B, with physically handicapped children. ANOVA then showed that children in the high contact group showed significantly greater contact willingness, greater deviance consequence and (obviously) greater actual contact. A follow-up study, (Voeltz, 1982) yielded essentially the same results.

The most plausible explanation of Voeltz's results in the present opinion is that the different types of school represent different social systems with different norms that pupils were socialised into holding.

An alternative explanation, reflecting the bottom-up approach, that contact changes each individual, seems to underpin the literature. In this light, it is not surprising that contact seems to be regarded as a treatment variable that improves beliefs. Strauch (1970) seems to express the underlying hope, that if only enough normal

people could get to know the handicapped, they would accept them. In other words, he implies that the way to improve community attitudes is through personal contact for the majority of its members. In a different context, Guskin (1981) suggests this philosophy is underpinned by an assumption that attitudes towards retardates are irrational (i.e. wrong) and that contact provides individuals with enlightening truths.

In the present opinion, of course, matters are unlikely to be so simple, because differences in beliefs between those with contact and those without are attributed to conformity to different social norms, rather than to contact per se. This, I think, predicts that contact as a treatment variable is unlikely to have the same impact as contact as a pre-existing characteristic and therefore, might explain otherwise contradictory research outcomes.

Hersh, Carlson and Lossino (1977), for example, examined the attitudes of 20 graduates in a school of social work, who completed a 19 item semantic differential giving beliefs about normal and retarded people. Variables distinguishing most between them were dependence, having a physical handicap, being unpredictable, aimless, useless and untidy. In the positive direction, however, mentally retarded people were consistently rated as more kind, good and not dangerous than normals. At random, half the subjects were assigned to spend the day with a family including a retarded member. For this group, the differences between normals and

retardates were "almost nonexistent" on retesting.

While it is possible that the students receiving visits forged a new social system, it seems more likely that changes reflected personal assessments based on experiences with specific individuals, which do not reflect - and which are unlikely to affect norms and hence, which are unlikely to persist.

Other attempts to use contact to promote attitude change rely on an institutional tour to provide it and Gottlieb (1975a) reviews the three studies that comprise the brief literature. All showed an improvement in attitudes towards the institutions, two showed no change in attitudes towards retardates, and one showed they had grown more negative. Clearly, the effect of contact was neither positive nor consistent, perhaps because measures reflected normative beliefs in the former cases and personal beliefs after seeing institutionalised retardates, who are likely to be severely afflicted, in the third.

Finally, Strauch (1970) examined the beliefs of one hundred and twenty four children aged between 13 and 14. All attended schools which enrolled retarded children, but 62 subjects were integrated with retardates for 4 non-academic lessons weekly. The dependent measure was a 20 item semantic differential on which six concepts: "me", "the mentally retarded", "regular class pupils", "special class pupils" and "normal people" were rated. There was an

overall contact effect, but when each concept was individually tested, only "normal people" varied significantly between groups. The trend for "mentally retarded" and "special class pupils" to receive less negative scores from subjects with contact was insignificant.

As Strauch concluded, his much quoted failure to find a significant contact effect indicates that contact per se does not promote positive attitudes, and it is interesting to speculate that the schools had similar normative beliefs about retardates which outweighed the "treatment effect" of contact. Alternatively, unlike Voeltz's study, there is no indication that the retarded children were severely handicapped, thus, instead of providing "contact with a retarded person", integration might have been more complete, thus retarded children might have been rated against "normal" criteria.

To summarise, hypotheses derived from the present paradigm which offer some form to the existing literature, are that normative beliefs define retardation. Hence, differences in definitions indicate simply that the interests and purposes of different social systems are being served, and are not necessarily confusing and contradictory. While individual beliefs most probably help shape normative structures, the individual is not the focus of analysis in the social approach, and changes in individual beliefs are therefore unlikely to be the road to changing the norms that define

retardation. Indeed, individual change, for the most part, is unlikely to be long-lasting, because it should be subject to normalising social influence. However, the optimistic conclusion is that rather than being blocked by negative beliefs, integration is likely to improve them.

As a discontinuous footnote, it is worth wondering whether retarded people have normative expectations about "retardates" that are similar to other groups. Gibbons (1981) complains that research with retarded subjects has been almost completely ignored, and although there are a few studies that concern labelling effects or self-concepts, only one (Gan, Tymchuck and Nisihara, 1977) seems to have elicited their opinions about retardates in general. Results simply indicated that subjects from a sheltered workshop evinced favourable attitudes. However, the question will be explored in much more detail in chapter 5.

6b. Professionals' beliefs about retardates

Tomlinson (1982) believes that professionals compete, each group being anxious to establish the dominance of its particular ideology. Contrastingly, in their unconventional paper that stages a trial with retardates as the plaintiffs and "the people" as the accused, Lax and Foley (1977) write:

the creation of a semantic mystogogy acts as a sheepskin curtain to shield from public view, inadequate understanding and that professionals, lawyers and psychologists each claim the determination of status to be in the realm of the other.

p. 4

Their accusation seems to imply that there is a single truth about retardation towards which understanding will bring convergence and that professional differences not only reflect the lack of such understanding, but also deliberate attempts to conceal it.

From the present point of view, the irresistably named semantic mystogogy - or different professional ideologies and "languages" - is neither the result of attempting to establish dominance or concealing ignorance. Rather it is seen as the outcome of different evolutionary paths, that is to say, different purposes combined with historical, cultural and psychological variables are hypothesised to have shaped differently the normative structures of professional social systems.

To illustrate, in a brief study Carroll and Reppucci. (1978)

examined differences in meaning attached by 40 teachers and 32 mental health workers in Connecticut to "mentally retarded", "emotionally disturbed" and "juvenile delinquent". Subjects received a case study of a 13 year old boy bearing one of the labels, or unlabelled, and then they completed 9 questions covering their expectations for his success in school and work, their suggestions for placement and treatment and their motivation to work with him.

Teachers rated all labelled children as less likely to succeed in school than the unlabelled control, and themselves as less willing and able to work with them. Mental health workers, on the other hand, rated themselves as less knowledgeable and willing to work with the mentally retarded target only. A direct comparison between professional groups showed that mental health workers were significantly less approving of special class placement across all labels. Carroll and Reppucci concluded that professionals attach different relative meanings to clinical labels and that this might disrupt interdisciplinary communication. It is interesting to go further and try to relate such differences to hypothesised differences between normative structures. For example, teachers' approval of special class placement seems consistent with a social system predicated on education, whereas the mental health workers' specific rejection of the retarded child is

consistent with the suggestion of writers like Mercer (1973) and Booth (1978) that retardates are an anathema in medical systems, since they cannot be cured.

In a widely known study, Greenbaum and Wang (1965) compared the beliefs of (a) 100 parents with retarded children, (b) professional experts, including 12 special teachers, 155 counsellors, 12 psychologists and 13 physicians, (c) 63 paraprofessionals who helped care for retarded children at special schools and (d) 68 employers. The dependent measure was a 21 item semantic differential including evaluation, social stimulus value, health and psychological attributes, on which the terms "idiot", "imbecile", "moron", "mentally retarded", "mentally ill", "emotionally disturbed", and "neurotic" were evaluated. For analysis, however, these were collapsed into mentally retarded and mentally ill clusters. Most relevant for present purposes, results showed that the mentally retarded cluster was significantly negative for all subject groups, but that paraprofessionals were significantly less negative than the other three groups - they alone rated retardates as relaxed, easy to get on with and clean.

Greenbaum and Wang suggest several explanations for this result, including intimate daily contact. However, on this basis, parents might be expected to have the most positive view. A more systematic rationale, they argue, is offered by dissonance theory, since paraprofessionals are likely to

justify their involvement with a negatively valued group by changing their evaluations, but this also seems unsatisfactory to me, because by this token, professionals should also have a more positive view. The same fault can be found with their final suggestion that paraprofessionals might be more dedicated and sympathetic people. In the present opinion, a better explanation is that the paraprofessionals' relatively positive beliefs reflect the norms of a social system geared to voluntary caregiving.

Professionals and employers did not differ but shared the most negative view, but since the former include teachers and clinicians, it probably represents more than one social system. Nevertheless, it is interesting that the item on which professionals are most negative and which distinguishes them most from the other groups is "unintelligent" which might be pertinent to all professional social systems.

Unlike Carroll and Reppucci (1978) and Greenbaum and Wang (1965), other researchers seem to deal with beliefs within a single profession.

Studies of beliefs among individuals who care for retardates seem rare and I have been unable to find any recent examples. However, Bartlett, Quay and Wrightsman (1960) administered 175 statements, including 22 about retardates to 99 attendants at an institute for defectives. There was

consensus on 5 items: subjects agreed that retardates are "not crazy", "able to learn right from wrong", and they disagreed with the suggestion that those who are not locked up are "dangerous", "no better than criminals" or "like animals".

Babow and Johnson (1969) on the other hand, found 91% of 760 institutional employees were high on authoritarianism and oriented towards bodily care.

Gottlieb, (1975a) writes that studies of medical professionals' beliefs about retardates are extremely rare and that he was unable to find any. Harth (1973) however, reviews three studies carried out during the 1960's which concerned paediatricians' opinions of institutionalisation and their interest in retardation. All results indicated little knowledge, training or interest in the area.

In contrast, attitudes and opinions of teachers seem to receive the lion's share of research interest.

A number of studies elicit teachers' reactions to different types of children. Ashman (1982) found mentally retarded children received worse ratings than children with other handicaps. This was largely accounted for by items like "impolite" and "aggressive" which, he argued, reflected teachers' concern with disruptive classroom behaviour.

Parish, Dyck and Kappes (1979) on the other hand, used The Personal Attribute Inventory to assess the attitudes of 65

teachers (arbitrarily selected in Kansas) to normal, gifted, physically handicapped, mentally retarded, learning disabled and emotionally disturbed children. The dependent measure was the number of negative adjectives rated appropriate. Results showed that attitudes towards the last three labels were significantly more negative than those towards the first three.

A second study replicated these findings using 95 delegates at a conference on learning disabilities and the authors concluded that mentally retarded children are unlikely to experience equal educational opportunity, because "what we expect is probably what we will get". Indeed, the fear that negative teacher attitudes towards retardates form the basis for self-fulfilling prophecies and are a cause rather than an effect of pupil behaviour, seems to motivate much research.

According to Larsen and Ehly (1978) for example, teachers are satisfied with a minimal performance, give less instruction and fewer opportunities to respond to children of whom they have low expectancies. Foster, Ysseldyke and Reese (1975) add that test scoring can be biased against such pupils and that even normal behaviour can be misinterpreted as subnormal.

To illustrate, Foster and Keech (1977) asked 50 elementary grade teachers to complete a teacher referral device for a

hypothetical 9 year old boy who was normal or mildly retarded. The device consisted of a 35 item personality questionnaire, to be completed as subjects thought the target would complete it, and a 23 item inventory on which academic skills, development and adjustment were to be rated. Results showed that teachers had significantly more negative beliefs about the retarded than the normal child. Subjects then saw a videotape of a normal child, but as before, were told that he was normal or retarded and then they completed a second teacher referral device for him. Although they were interpreting the same evidence, the relatively negative responses of those in the retarded condition were maintained and the authors concluded that beliefs persist even when confronted with incongruous evidence. In other words, the self-fulfilling prophecy hypothesis depends on an assumption that contact for teachers as opposed to laymen, does not change beliefs.

Other research, however seems to contradict this position: In their classic article, Efron and Efron (1967), for example, set out to explore the dimensionality of 235 educators' attitudes towards the mildly retarded, which they hypothesised would differ according to subjects' involvement. The dependent measure was a Likert format questionnaire, consisting of 59 items especially written to be relevant to the education of retardates, and a further eleven designed to measure authoritarianism and factual knowledge.

Data were factor analysed and a six factor solution chosen. Factor 1, segregation via institutionalisation projected the view that retardates should be removed from society and loaded highly on beliefs that they are dangerous, better off together and incurably different to normals. Factor 2 embodied the belief that cultural impoverishment is a significant contributor to retardation. Factor 3, non condemnatory etiology loaded highly on items suggesting retardation is not a punishment from God for parental sins. Factor 4, personal exclusion reflected a desire to avoid intimate contact and Factor 5 measured authoritarianism. Finally, Factor 6, hopelessness projected a pessimistic view of the prospects in store for retardates.

Subjects were classified into 4 categories: 22 teachers of the mentally retarded, 125 teachers or student teachers not involved with special education, 41 graduate and undergraduates in retardation and 23 persons not employed in education. Means for each group on the six factors were then compared using ANOVA. Throughout, students in retardation and teachers of retardates formed a cluster and did not differ from each other. Similarly, those in general education and non-educational occupations formed a second group. On factors 1 and 2 there was a neat bifurcation with the former group favouring integration and believing in the role of cultural deprivation to a greater extent. In

addition, they possessed more factual knowledge. There were no differences at all on Factor 3, non-condemnatory etiology and the relevant comparisons on factors 4,5 and 6 showed teachers of retardates were more willing to have intimate contact and were less authoritarian than teachers not connected with special education, but they did not differ in their view of retardates' prospects.

Efron and Efron do not discuss their results beyond concluding that personal contact is probably the only way of changing the more personal facet of attitudes.

In contrast, Warren, Turner and Brody (1964) found direct experience of teaching blind children brought a positive change in attitude while similar experience with retardates had the opposite effect. Similarly, Alper and Retish (1972) failed to find an improvement in the attitudes of special education students after teaching experiences with retarded children, while Panda and Bartel (1972) administered a semantic differential to 40 teachers who had taught retarded children and contrary to expectations, found the 20 who had had training in special education, were not more positive in their evaluations.

It is not surprising therefore that writers like Kennon and Sandoval (1978) argue that studies of teachers are ambiguous and cite further apparently contradictory studies to add to the present list. Indeed, they sit on the fence, and

suggest that beliefs of regular and special teachers probably do not differ and this accounts for the distribution of studies identifying first one and then the other as more positive.

The present paradigm can offer a more satisfying explanation. First, it does not assume that teachers of normal children differ essentially from laymen in their beliefs about retardates, because they have no professional involvement. Thus, although they might have a general interest in matters educational, they are likely to share normative beliefs that deal with deviant appearance and social behaviour, perhaps to explain or avoid embarrassing interactions. Teachers trained to deal with retarded children, on the other hand, are seen as members of another social system with normative structures focussing more on professional type knowledge, special education and training although at the onset of their courses, student teachers, as yet unsocialised, might not show significant differences (Green and Retish, 1973).

More important, different effects of contact are predicted. For the special class teacher, it is likely to represent "experience" and to confirm or leave beliefs essentially unchanged. For regular teachers, on the other hand, a number of possibilities arise. First, those reporting contact are hypothesised to be analogous to lay subjects with contact, that is, members of a social system which has

more positive, accepting norms, perhaps geared to personal relationships. When regular teachers are given contact in the form of teaching experience, on the other hand, it seems reasonable to suppose that changes will bring them into line with special teachers, (being professional rather than personal), and will initiate a change of emphasis from appearance and behaviour to education and training, rather than a positive shift. This provides an alternative to Gottlieb and Siperstein's (1976) "bottom-up" suggestion, that positive changes do not occur because trying to teach retarded children is frustrating.

Kennon and Sandoval (1978) support indirectly these ideas. They asked 35 regular and 25 special class teachers to complete a multi-dimensional attitude scale on mental retardation, which consisted of items grouped into 5 categories: (1) educational integration-segregation policy, (2) over-favourableness - the idea that retarded children are more virtuous than normals, (3) social distance - reflecting a willingness to interact with retarded children in public places, (4) private rights - a measure of the extent to which civil rights of retarded children, particularly with regard to education, are considered more important than those of others and (5) subtle derogatory beliefs - the notion that retarded children's morals and skills are substandard.

Although ANOVA failed to yield significant differences,

scrutiny of group means is consistent with the present argument, since special class teachers tended to prefer special class placement, were marginally more open to social interaction and more likely to support retardates' civil rights to education and free association. These findings are given more weight, since using the same instruments, Harth (1973) found significant differences on the latter two scales.

More interesting, however, the authors also examined the effect of contact among the regular teachers. In this case, results were significant and those with contact were more in favour of integration, more open to social contact and held fewer derogatory beliefs. In other words, they seem to show the relatively positive beliefs of lay people with contact.

To summarise, the key premise, that differences in beliefs about retardation relate to the interests and purposes of different social systems, can be extended to professionals' beliefs about retardates. Thus, differences do not indicate professional incompetence, or worse, a deliberate attempt to conceal it, but simply, that different purposes are being served. Furthermore, previously irreconcilable results can be understood, if it is hypothesised that conformity to norms of a professional system geared to dealing with retardates is unlikely to be changed by formal contact.

Overall therefore, the present social paradigm has proved

useful a posteriori. Clearly, the next step is an a priori test.

STUDY 1

7. AN EMPIRICAL INVESTIGATION OF BELIEFS ABOUT RETARDATE

7.1. INTRODUCTION

What follows is an attempt to explore the social model of retardation, using a representative sample of laymen in Bristol, 1980 and, in subsidiary investigations, small samples of psychologists and teachers.

1. The primary hypothesis is that lay people who are acquainted with a retardate, conceptualise them differently to those who are not, and that these differences arise because they are members of different social systems rather than because of individual variation. In more detail, beliefs of unacquainted lay people are expected to show a preoccupation with social stimulus characteristics like appearance, gait, speech and other items relevant to unusual or embarrassing interactions, and are expected to be evaluatively negative. Those of lay people personally acquainted with a retardate, on the other hand, are expected to reflect an interest in caregiving, protection and control, and in comparison to unacquainted subjects, to be relatively positive.

Put another way, a) intelligence, abnormality and social incompetence per se are expected to play little part, b) beliefs of unacquainted subjects are expected to reflect self-interest, and c) those of acquainted subjects, the interests of retardates.

Several subsidiary comparisons are planned to add depth to these predictions:

2. Beliefs of psychologists are hypothesised to reflect statistical and medical models. Relative to laymen, therefore, they are expected to focus on abnormality, intelligence and pathology, and hence, to be evaluatively negative. Contact with a retardate for them is hypothesised not to be associated with marked positive changes.
3. Teachers of normal children are not expected to have special interest in retardates and therefore are hypothesised not to differ from lay people.
4. Finally, and for completeness, sex, class and age main effects will be briefly examined. Females are expected to evaluate retardates more positively than males. No predictions are made regarding class and age, although a hypothesised relationship with profession is expected to throw light on previous inconsistencies.

7.2. METHOD

This involved three stages: items relevant to the concept "retardates" were collected, an instrument was constructed and third, subjects rated the concept on it.

7.2.1. The pilot study and derivation of an item pool

Within the social framework it is clear that items taken from previous studies or selected a priori might not be relevant for present subject groups. In a pilot study, based on Kuhn and McPartland's (1954) Who Am I Test, a pool of items from actual laymen, psychologists, doctors and teachers was therefore collected. Subjects were simply asked to complete 6 phrases beginning "Retardates are" and were assured there were no right or wrong answers and that their responses would be anonymous. Because this was entirely exploratory, there was no planned number of subjects, but new items ceased being added to the list after relatively few, although in case this was due to chance, 150 were interviewed, including 15 teachers, 2 special teachers, 20 psychologists, 20 medical students and doctors and 93 lay people from a wide variety of occupations. Ages ranged from 13 to 65 and numbers of males and females were approximately equal.

Only 6 subjects failed to produce 6 definitions, but a number, whose imagination failed, ended with nonsense responses or apologies, which were ignored. Similarly, other jokes or idiosyncratic (as opposed to normative)

beliefs were eliminated by including only items given by at least 2 subjects. Without exact, but with near duplicates, over 350 items were thus generated, ranging from one word to substantial sentences in length. Each was typed onto a card, and the whole set formed the item pool, (given in Appendix 2.1).

7.2.2. The instrument

Six judges (an actor aged 29; a female psychologist, aged 24; an electronics stores technician (approximately 50); a housewife, (32); a waitress about to start a university course in Social Administration, (25) and an upholsterer, (64)) undertook to perform an inductive content analysis to sort the item pool into categories, but this method of determining basic dimensions for an instrument was abandoned, since no two judges agreed on the number of classes, which varied from 5 to 25. Furthermore, the task took up to 3 hours.

A second look through the pool revealed that groups of items frequently suggested one dimension, like "happy", "always happy", "usually sad", "never sad", and many more. Coupled with this insight, a literature search suggested a semantic differential format would be ideal, because, apart from exploiting such clear unidimensionality, it demanded no other classification. Before constructing scales, however, one restriction was imposed: because the present interest is in defining the behaviours and characteristics associated with retardates, a substantial set of "should" items, mostly

relating to facilities (e.g. "should have more hostels") was set on one side. Otherwise, no items were omitted, despite some close similarities, and with the help of 5 of the judges (not the stores technician), the pool was grouped into 81 scales to form the instrument (given in Appendix 2.2).

Surprisingly, an opposite for virtually every pole was present, and it was interesting to speculate whether subjects defining retardates as graceful, good-looking, intelligent and so on, had been expressing their values, rather than what they genuinely believed. Thus, it was necessary only to supply "will find a job easily", "rich family background" and "fine facial features" together with "controlled by self" (as an opposite for "controlled by others or Fate"). Poles and items were randomised, and an informal pilot on 18 subjects clarified wording.

The final semantic differential, it is important to note, differs marginally from *The semantic differential* of Osgood, Suci and Tannenbaum (1957) which has been widely applied with children, adults, mental retardates, juvenile delinquents, schizophrenics and many other groups, and which has been used to differentiate any concept, including the self, (Osgood et al, 1957), and is economic, simple, reliable and valid (Heise, 1971). Over the 25 years since its development, it has been used and adapted by many researchers, so it is wise to refer to the original to evaluate the present useage.

As a result of research into synesthesia, Osgood et al (1957) realised that stimuli perceived through different modalities could, at least in part, share the same meaning, a phenomenon which they hypothesised, was intimately tied to language. Since the function of language is to communicate meaning, they went on to assume that it should be useable to differentiate between concepts and to *measure* meaning. The semantic differential is the fruit of this assumption.

In order to use the semantic differential, Osgood et al point out, it is not necessary to be familiar with or to agree with their theory of meaning, particularly as they freely admit, it was developed post hoc as a teleological justification for the instrument. For this reason, only enough to understand the present adaptation will be sketched.

Essentially, Osgood et al argue that objects elicit stable responses, and that signs (i.e. words) come to represent them because they elicit parts of these responses. To Osgood et al, therefore, the meaning of a word can be defined in terms of its distinctive cognitive response. The "representational mediating process" they visualise as excitations within a semantic space of multiple dimensions passing through an origin. Semantic differentiation, it follows, is the allocation of a concept to a point in this space. For practical purposes, dimensions are represented by semantic differentiatial scales and semantic differentiation corresponds to selection among the

alternatives presented by the bipolar scales. Thus, meaning can be defined theoretically as a point in semantic space, with direction and intensity according to position and distance from the neutral origin. Practically, it can be defined in terms of responses on a semantic differential.

Osgood et al argued that semantic space is most efficiently defined by the minimum number of orthogonal dimensions and accordingly, they set out to discover empirically what these might be. A battery of factor analyses processed data from large samples of subjects differentiating many concepts, against many scales. To gain wide representativeness, even a Thesaurus study was included. Full details are given by Osgood et al, but for present, it is enough to note that three factors consistently emerged: evaluation accounted for approximately 35% of variance and comprised scales like "good/bad", "beautiful/ugly", "clean/dirty" and "sweet/bitter". The second factor, potency, which accounted for about 8% of variance, comprised scales like "large/small", "strong/weak" and "thick/thin". Finally, activity accounted for approximately 6% and scales like "fast/slow", "hot/cold" and "sharp/dull" loaded most highly on it. Consequently, the semantic differential consists of scales, usually between 4 and 10, selected to load on each of these three factors. Because the present interest is in mental retardation, rather than Osgood et al's theory of meaning, scales have been chosen for their relevance to retardates, not to the EPA structure, a departure further

justified for at least two reasons: first, the methodological status of the EPA structure seems unaccountably high and researchers seem to ignore the fact that it accounts typically for only half the total variance, and that other factors, a further five in the Thesaurus study, emerge. Second, and intuitively, it simply does not ring true that three dimensions are sufficient to encompass all meanings in human experience, and it is interesting to wonder whether the EPA structure emerged because data across many concepts were combined, so that it is roughly appropriate for everything but exactly relevant to nothing.

To conclude, like that of Greenbaum and Wang (1965), the present semantic differential reflects an interest in retardates, but, treatment and scoring of data follow essentially the traditional pattern.

7.2.3. Subjects

In all, 494 subjects were tested. These comprised a) 395 lay people, defined as those with no professional interest in retardates. 134 were personally acquainted with a retardate, 260 were not and one did not say.

b) 52 psychologists, 28 with and 23 without personal acquaintance and 1 who did not say.

c) 40 teachers, 22 with and 18 without personal acquaintance.

d) and 7 subjects who gave no occupation.

The varied sample sizes require some explanation. They reflect the primary aim of defining retardation and examining the effect of contact within contemporary lay systems, in which context, psychologists and teachers merely provide contrast groups. Although ideas subsequently developed in the literature review initiated an interest in professionals' beliefs in their own right, a fuller investigation must wait: at present, there are some 40,000 data points, each ^{di}individually collected, scored, checked, coded and rechecked - a task that took many months, and time simply does not permit increasing professional samples to achieve a more balanced design.

Subjects were tested in the Bristol area during 1980. An attempt was made to recruit the lay sample at random by approaching all comers at different times and places on the streets. Experience showed this to be an inefficient method, because minutes frequently elapsed before subjects appeared. For this reason, recruitment tended to be in areas where people congregate. Thus, one subject could be approached while others were completing their questionnaires. Locations included the city centre and shopping centres, the unemployment exchange, the bus station, the coffee area in the Outpatients' Department at Bristol Royal Infirmary, an upholstery factory and a block of flats for pensioners in Westbury-on-Trym, a class of schoolboys at Clifton College and staff at an office block

near the centre of town. In addition, people in the vicinity of the University and E's home were approached, together with those encountered on journeys between testing locations. Psychologists were recruited at a conference and although a few teachers were recruited by chance, the majority were attending short in service courses at Bristol University's School of Education.

7.2.4. Procedure

Subjects were simply approached and asked if they would help E with some research by giving their beliefs about "retardates - that is mentally subnormal people" on the provided semantic differentials. Testing was either single or multiple, depending on whether subjects were alone or in groups. It was stressed that responses were anonymous, but subjects were asked to indicate their age, sex, occupation and whether they knew a retarded person. Only one refused, who it transpired, was hurrying to catch a bus. Roughly thirty grumbled that it was impossible to generalise, but all nevertheless completed the task, although three of these (who were personally acquainted) gave all neutral responses. Instructions were taken from Osgood et al, and are given in Appendix 2.3.

7.3. TREATMENT OF DATA AND RESULTS

Semantic differential "boxes" were scored from 1 to 7, with 1 always allotted to the positive pole, which had been identified by the 5 judges. For the most part, this was straight forward, but several scales were not immediately obvious:- "underestimated" and "misunderstood" were rated positive together with "unpredictable personality" and "complicated". Bearing these difficulties in mind, raw scores may nevertheless be taken as a rough indication of evaluation, but since scales are unlikely to load equally on it, evaluation per se cannot be parametrically analysed. On the other hand, Osgood et al (1957) and Heise (1971) present research that shows semantic differential "boxes" are equally spaced according to intensity, which justifies the use of ANOVA to examine differences in beliefs on each scale.

Since the data base and the number of independent variables are so large, an enormous number of analyses are possible and only those most relevant to hypotheses have been undertaken.

Table 2.1 gives mean scores for lay subjects with and without contact with retardates. The latter were more positive on 71/81 scales, ($p < .0001$, Sign Test). Univariate ANOVA (BMDP7D) on each scale showed that contact had 43 significant effects which have been marked with a cross (p

<.05) or an asterisk, ($p < .01$). Appendix 2.4 contains justifications for and examples of analyses.

TABLE 2.1
Mean semantic differential scores for lay subjects

	Acquainted		Unacquainted	
	mean	s.d.	mean	s.d.
trusting/wary	2.72	1.55	3.07	1.62+
graceful/unco-ordinated	5.41	1.29	5.52	1.22
talkative/uncommunicative	3.58	1.63	4.01	1.65+
secure/insecure	4.17	1.95	4.78	1.69*
quiet/noisy	4.63	1.57	4.72	1.48
friendly/unfriendly	2.37	1.35	2.47	1.26
healthy/unhealthy	3.52	1.71	4.07	1.48*
valuable/worthless	3.23	1.52	3.56	1.50+
relaxing/upsetting to be with	4.53	1.49	5.02	1.39*
loving/cold	2.21	1.34	2.52	1.32+
under-estimated/over-estimated	2.88	1.55	3.15	1.44
good-looking/ugly	4.31	1.16	4.67	1.06*
speech clear/speech unclear	5.19	1.39	5.28	1.35
independent/dependent	5.49	1.70	5.38	1.74
contented/frustrated	4.40	1.87	4.60	1.63
active/passive	3.20	1.76	3.60	1.61+
able to cope/unable to cope	4.51	1.62	4.88	1.41+
good/bad at concentrating	4.96	1.70	5.27	1.52
not lonely/lonely	4.13	1.96	4.64	1.64*
even-tempered/moody	4.90	1.88	5.04	1.48
easy/difficult to relate to	4.37	1.74	4.92	1.58*
family's pride/family's shame	4.01	1.48	4.35	1.39+
employable/unemployable	3.93	1.78	4.01	1.74
predictable/unpredictable behaviour	4.80	1.71	5.07	1.52
self-content/wants to be different	3.46	1.73	3.93	1.80*
well-dressed/badly-dressed	3.72	1.49	4.28	1.36*
mature/childlike	5.59	1.40	5.59	1.33
resistant to illness/frequently ill	4.18	1.33	4.48	1.20+
quick/slow	4.98	1.61	5.33	1.34+
over-protected/under-protected	3.28	1.69	3.25	1.44
misunderstood/understood	3.01	2.03	2.68	1.45
soothing/embarrassing	4.58	1.26	4.89	1.19+
strong/weak	3.00	1.63	3.58	1.65*
good/bad at expressing meaning	4.66	1.75	5.03	1.56+
happy/sad	3.16	1.56	3.51	1.49+
attractive/unattractive friend	4.14	1.35	4.64	1.29*
extrovert/introvert	3.86	1.63	4.16	1.46
will find a job easily/will not	6.08	1.23	6.26	1.20
normal/abnormal	5.18	1.47	5.04	1.53
clean/dirty	3.29	1.49	3.57	1.41
reassuring/frightening	4.27	1.35	4.69	1.22*
d'ment shaped by environment/birth	4.16	2.25	4.20	1.90
unlike/(like other retardates)	3.60	1.80	4.58	1.63*
asset to society/burden to society	4.31	1.52	4.77	1.32*
confident/hesitant	4.57	1.67	4.97	1.33*
high intelligence/low intelligence	4.98	1.47	4.94	1.43
sexually restrained/permissive	3.90	1.79	3.58	1.42+
sensitive/insensitive to others	2.87	1.56	3.42	1.75*
calm/excitable	5.85	1.37	5.58	1.34

high self-esteem/low self-esteem	4.14	1.54	4.48	1.30+
lovable/repulsive	3.18	1.44	3.61	1.38*
cheering/depressing	3.80	1.67	4.51	1.56*
clear thinker/confused thinker	5.31	1.42	5.23	1.40
rich/poor family background	4.04	1.18	4.10	0.73
knowing/not knowing right from wrong	3.81	1.80	4.30	1.63*
complicated/simple	4.19	1.62	4.37	1.71
not aggressive/aggressive	4.19	1.62	4.42	1.42
good at concentrating/(distractible)	5.43	1.46	5.64	1.32
nice/nasty	3.12	1.42	3.60	1.07*
always careful/accident prone	5.04	1.46	5.30	1.18
wanted/unwanted	3.84	1.74	4.47	1.59*
tough/vulnerable	5.20	1.68	5.21	1.53
wide/limited general knowledge	5.61	1.35	5.65	1.23
acceptable/unacceptable neighbour	3.52	1.91	3.74	1.73
well treated/hard done by	3.67	2.03	4.14	1.68+
tidy/untidy	4.31	1.67	4.45	1.40
socially skilled/socially inept	5.14	1.40	5.32	1.22
normal/unusual appearance	4.46	1.65	4.95	1.51*
wanting to join in/preferring (not)	2.81	1.72	3.22	1.60+
stable/neurotic	4.32	1.32	4.52	1.25
trustworthy/deceitful	3.21	1.52	3.30	1.29
fine/coarse facial features	4.49	1.46	4.85	1.26*
controlled by self/others or Fate	5.38	1.42	5.23	1.47
popular/friendless	3.75	1.56	4.30	1.32*
safe/dangerous	3.22	1.49	3.80	1.36*
tonic/strain for family	5.54	1.36	5.67	1.29
nice/nasty to live with	3.79	1.29	4.14	1.00*
unpredictable/predictable personality	3.54	1.78	3.33	1.66
capable/helpless	4.38	1.45	4.48	1.47
helpful/unhelpful	3.10	1.56	3.45	1.47+
undemanding/demanding	5.18	1.74	5.68	1.40*

Separate factor analyses for acquainted and unacquainted subjects were undertaken. Preliminary results yielded 24 factor solutions. In each case, the first 15 factors accounted for the majority of variation (60 and 56%, respectively), so data were reanalysed with eigenvalues set at 1.5 and a maximum of 15 factors specified. This yielded the 14 and 11 factor solutions given in Table 2.1a, which appears at the relevant point in the text.

Tables 2.2 and 2.3 similarly give psychologists' and teachers' beliefs according to personal acquaintance. There was no overall difference in evaluation for the former (43/81, N.S), but acquainted teachers were more positive on 74/81 items, ($p < .001$, Sign Test).

ANOVA yielded 4 significant contact effects for the psychologists and 17 for the teachers, which have been indicated as before.

TABLE 2.2
Psychologists' beliefs about retardates

	unacquainted		acquainted	
	Mean	s.d.	Mean	s.d.
trusting/wary	2.39	1.21	2.50	1.38
graceful/unco-ordinated	6.00	0.66	5.82	1.17
talkative/uncommunicative	4.65	1.24	4.07	1.56
secure/insecure	3.91	1.28	4.39	1.42
quiet/noisy	4.22	1.21	5.14	1.22*
friendly/unfriendly	2.61	1.05	2.54	1.02
healthy/unhealthy	5.00	1.22	4.64	1.56
valuable/worthless	3.83	1.09	3.39	1.35
relaxing/upsetting to be with	5.13	1.15	4.75	1.27
loving/cold	2.39	0.87	2.57	1.08
under-estimated/over-estimated	3.00	0.88	2.46	1.18
good-looking/ugly	4.91	1.06	4.61	1.01
speech clear/speech unclear	5.87	0.74	5.43	1.21
independent/dependent	5.91	1.28	5.82	1.17
contented/frustrated	4.78	1.56	5.36	1.49
active/passive	3.96	1.40	3.36	1.47
able to cope/unable to cope	5.39	1.05	5.54	1.27
good/bad at concentrating	5.39	1.01	5.46	1.43
not lonely/lonely	4.13	1.51	4.64	1.61
even-tempered/moody	4.30	1.37	4.82	1.17
easy/difficult to relate to	5.52	1.44	4.71	1.56
family's pride/family's shame	5.17	0.92	5.36	1.11
employable/unemployable	4.26	1.75	4.25	1.86
predictable/unpredictable behaviour	4.43	1.38	5.00	1.41
self-content/wants to be different	3.74	1.11	3.96	1.12
well-dressed/badly-dressed	4.61	0.82	4.36	1.26
mature/childlike	5.91	0.78	5.43	1.29
resistant to illness/frequently ill	4.61	1.09	5.04	1.48
quick/slow	5.96	0.69	6.07	1.10
over-protected/under-protected	3.17	1.17	3.11	1.45
misunderstood/understood	2.74	1.19	2.21	1.37
soothing/embarrassing	4.96	1.08	4.93	1.31
strong/weak	4.39	1.34	4.32	1.65
good/bad at expressing meaning	5.87	0.80	5.57	1.05
happy/sad	3.87	1.12	3.75	1.50
attractive/unattractive friend	5.13	0.99	4.75	1.27
extrovert/introvert	3.78	0.83	3.57	1.24
will find a job easily/will not	6.57	0.77	6.71	0.70
normal/abnormal	5.57	1.21	5.46	1.24
clean/dirty	4.13	1.08	4.43	1.37
reassuring/frightening	4.65	0.81	4.36	0.89
d'ment shaped by environment/birth	3.83	1.74	3.79	1.50
unlike/(like other retardates)	4.39	1.24	4.00	1.73
asset to society/burden to society	4.65	1.09	4.61	1.42
confident/hesitant	4.48	0.97	4.75	1.38
high intelligence/low intelligence	6.09	1.06	5.75	1.48
sexually restrained/permissive	4.00	1.10	3.75	1.66
sensitive/insensitive to others	4.00	1.22	4.11	1.42
calm/excitable	4.70	1.20	5.46	1.05+
high self-esteem/low self-esteem	4.78	1.02	4.93	1.13
lovable/repulsive	3.61	1.21	3.82	1.26

cheering/depressing	4.65	1.00	4.61	1.42
clear thinker/confused thinker	5.65	0.76	5.54	0.98
rich/poor family background	4.65	0.76	4.36	0.72
knowing/not knowing right from wrong	4.26	1.19	4.68	1.47
complicated/simple	4.91	1.32	3.93	1.85+
not aggressive/aggressive	3.74	1.26	4.43	1.35
good at concentrating/(distractible)	5.43	1.38	5.46	1.27
nice/nasty	3.61	0.92	3.43	0.90
always careful/accident prone	5.30	0.91	5.32	0.97
wanted/unwanted	4.96	1.30	5.43	1.27
tough/vulnerable	5.35	1.00	5.86	1.09
wide/limited general knowledge	5.96	1.08	6.11	1.05
acceptable/unacceptable neighbour	3.13	1.36	3.46	1.35
well treated/hard done by	4.48	1.44	5.25	1.43
tidy/untidy	4.61	0.82	4.68	1.44
socially skilled/socially inept	5.83	0.82	5.64	1.29
normal/unusual appearance	4.78	1.53	5.14	1.16
wanting to join in/preferring (not)	2.96	1.12	2.93	1.28
stable/neurotic	4.00	0.83	4.11	0.90
trustworthy/deceitful	3.52	0.88	3.25	0.95
fine/coarse facial features	4.78	1.02	5.07	1.28
controlled by self/others or Fate	4.96	0.86	5.14	1.68
popular/friendless	4.57	0.97	4.89	1.08
safe/dangerous	3.57	1.10	3.39	0.94
tonic/strain for family	5.83	1.09	5.82	1.28
nice/nasty to live with	3.96	1.04	4.21	0.94
unpredictable/predictable personality	4.30	1.20	3.21	1.18*
capable/helpless	5.22	0.72	4.93	1.39
helpful/unhelpful	3.43	1.10	3.39	1.14
undemanding/demanding	5.26	1.26	5.71	0.92

TABLE 2.3
Teachers beliefs about retardates

	Acquainted		Unacquainted	
	Mean	s.d.	Mean	s.d.
trusting/wary	2.23	1.00	2.89	1.56
graceful/unco-ordinated	5.41	1.15	5.39	1.16
talkative/uncommunicative	3.73	1.54	4.39	1.67
secure/insecure	4.00	1.76	5.22	1.55+
quiet/noisy	4.41	1.78	4.61	0.89
friendly/unfriendly	1.82	0.94	3.06	1.43*
healthy/unhealthy	2.95	1.33	4.17	1.50*
valuable/worthless	2.59	1.37	3.67	1.11*
relaxing/upsetting to be with	3.95	1.49	5.50	0.96*
loving/cold	1.82	0.94	2.67	1.45+
under-estimated/over-estimated	2.95	1.82	2.56	1.17
good-looking/ugly	3.95	0.77	4.39	1.06
speech clear/speech unclear	5.05	1.55	5.28	1.10
independent/dependent	5.59	1.03	6.11	0.99
contented/frustrated	4.18	1.77	4.89	1.37
active/passive	3.36	1.46	3.89	1.37
able to cope/unable to cope	5.09	1.28	5.17	1.07
good/bad at concentrating	5.55	1.34	5.89	1.45
not lonely/lonely	4.14	1.29	4.56	1.50
even-tempered/moody	4.14	1.39	4.94	1.08
easy/difficult to relate to	4.77	1.31	5.44	1.34
family's pride/family's shame	4.23	1.35	5.22	1.03+
employable/unemployable	3.68	1.26	3.83	1.86
predictable/unpredictable behaviour	4.27	1.68	5.22	1.40
self-content/wants to be different	3.41	1.07	4.28	1.33+
well-dressed/badly-dressed	3.77	1.59	4.06	0.97
mature/childlike	5.45	0.94	5.67	1.00
resistant to illness/frequently ill	4.05	1.46	4.67	1.29
quick/slow	5.36	1.19	5.72	1.04
over-protected/under-protected	3.55	0.84	3.56	1.30
misunderstood/understood	3.00	1.86	2.50	0.96
soothing/embarrassing	4.45	1.16	5.28	1.04+
strong/weak	3.50	1.23	4.28	1.56
good/bad at expressing meaning	5.27	1.79	5.67	1.49
happy/sad	3.14	1.32	3.61	1.21
attractive/unattractive friend	4.14	1.10	4.78	1.08
extrovert/introvert	3.64	1.11	4.28	1.28
will find a job easily/will not	6.41	0.94	6.39	1.11
normal/abnormal	4.50	1.12	5.17	1.30
clean/dirty	3.50	1.56	3.72	1.04
reassuring/frightening	4.41	0.72	4.94	0.85+
d'ment shaped by environment/birth	4.00	2.11	4.22	1.75
unlike/(like other retardates)	4.00	1.83	4.17	1.89
asset to society/burden to society	3.73	1.35	5.06	1.13*
confident/hesitant	4.55	1.59	4.94	1.22
high intelligence/low intelligence	5.00	1.31	5.67	1.33
sexually restrained/permissive	4.23	0.90	4.33	1.20
sensitive/insensitive to others	2.91	1.38	3.56	1.34
calm/excitabile	5.41	1.11	4.72	1.04

high self-esteem/low self-esteem	4.50	1.27	5.06	1.03
lovable/repulsive	3.00	1.31	3.83	1.21+
cheering/depressing	3.82	1.43	4.56	1.21
clear thinker/confused thinker	5.27	0.86	5.44	1.07
rich/poor family background	3.95	1.26	4.17	0.50
knowing/not knowing right from wrong	4.05	1.52	4.50	1.50
complicated/simple	4.00	1.62	3.94	1.54
not aggressive/aggressive	4.00	1.45	4.39	1.11
good at concentrating/(distractible)	5.32	1.82	5.72	1.10
nice/nasty	3.18	1.27	3.83	0.90
always careful/accident prone	5.23	1.04	5.22	1.03
wanted/unwanted	4.14	1.63	4.50	1.42
tough/vulnerable	5.32	1.33	5.39	1.53
wide/limited general knowledge	5.32	1.66	5.78	1.08
acceptable/unacceptable neighbour	2.91	1.56	3.83	1.54
well treated/hard done by	4.27	1.79	4.89	0.94
tidy/untidy	3.68	1.29	4.17	1.01
socially skilled/socially inept	5.36	0.88	5.44	1.01
normal/unusual appearance	3.86	1.60	4.44	1.26
wanting to join in/preferring (not)	2.59	1.47	3.83	1.42*
stable/neurotic	4.05	1.11	4.28	0.93
trustworthy/deceitful	3.05	1.15	3.89	1.20+
fine/coarse facial features	4.23	0.90	4.78	0.71+
controlled by self/others or Fate	4.95	1.02	5.50	1.01
popular/friendless	3.91	1.04	4.28	1.15
safe/dangerous	3.18	1.27	4.17	1.30+
tonic/strain for family	5.50	0.84	5.28	1.37
nice/nasty to live with	3.41	1.03	4.39	1.11*
unpredictable/predictable personality	3.86	1.42	3.61	1.30
capable/helpless	4.45	1.23	4.72	1.19
helpful/unhelpful	3.14	1.14	3.39	1.38
undemanding/demanding	5.27	1.09	5.56	1.38

Two factor ANOVA (BMDP2V) compared directly the effect of occupation and contact. Occupation had 24 significant effects and there were 8 significant interactions, all of which are indicated on Table 2.4. Finally, T tests were computed (BMDP3D) to examine the nature of such differences, and these are described in the text.

TABLE 2.4
Mean occupational effects on beliefs about retardates

	lay	psych'	teach	p	p(x)
trusting/wary	2.95	2.46	2.53		
graceful/unco-ordinated	5.49	5.83	5.40		
talkative/uncommunicative	3.86	4.33	4.02		
secure/insecure	4.58	4.17	4.55		+
quiet/noisy	4.70	4.71	4.50		+
friendly/unfriendly	2.43	2.56	2.38		+
healthy/unhealthy	3.87	4.79	3.50	*	
valuable/worthless	3.43	3.63	3.07		
relaxing/upsetting to be with	4.84	4.92	4.65		
loving/cold	2.40	2.48	2.20		
under-estimated/over-estimated	3.06	2.71	2.78		
good-looking/ugly	4.55	4.79	4.15	+	
speech clear/speech unclear	5.24	5.65	5.15		
independent/dependent	5.43	5.88	5.82		
contented/frustrated	4.54	5.08	4.50		
active/passive	3.46	3.62	3.60		
able to cope/unable to cope	4.76	5.44	5.13	*	
good/bad at concentrating	5.17	5.40	5.70	+	
not lonely/lonely	4.45	4.40	4.32		
even-tempered/moody	4.99	4.58	4.50	+	
easy/difficult to relate to	4.73	5.06	5.07	+	
family's pride/family's shame	4.24	5.29	4.68	*	
employable/unemployable	3.99	4.19	3.75		
predictable/unpredictable behaviour	4.98	4.69	4.70		
self-content/wants to be different	3.76	3.87	3.80		
well-dressed/badly-dressed	4.09	4.46	3.90		
mature/childlike	5.59	5.67	5.55		
resistant to illness/frequently ill	4.36	4.83	4.32	+	
quick/slow	5.21	6.04	5.52	*	
over-protected/under-protected	3.27	3.15	3.55		
misunderstood/understood	2.79	2.42	2.78		
soothing/embarrassing	4.77	4.96	4.82		
strong/weak	3.39	4.29	3.85	*	
good/bad at expressing meaning	4.91	5.67	5.45	*	
happy/sad	3.39	3.75	3.35		
attractive/unattractive friend	4.45	4.92	4.43	+	
extrovert/introvert	4.03	3.62	3.93		

will find a job easily/will not	6.20	6.65	6.40	+
normal/abnormal	5.08	5.54	4.80	
clean/dirty	3.47	4.23	3.60	*
reassuring/frightening	4.55	4.50	4.65	
d'ment shaped by environment/birth	4.20	3.87	4.10	
unlike/(like other retardates)	4.24	4.15	4.07	
asset to society/burden to society	4.61	4.65	4.32	+
confident/hesitant	4.83	4.62	4.73	
high intelligence/low intelligence	4.96	5.92	5.30	*
sexually restrained/permissive	3.71	3.90	4.27	
sensitive/insensitive to others	3.24	4.04	3.20	*
calm/excitabile	5.68	5.12	5.10	*
high self-esteem/low self-esteem	4.36	4.88	4.75	*
lovable/repulsive	3.46	3.77	3.38	
cheering/depressing	4.25	4.62	4.15	
clear thinker/confused thinker	5.26	5.60	5.35	
rich/poor family background	4.08	4.48	4.05	*
knowing/not knowing right from wrong	4.13	4.54	4.25	
complicated/simple	4.29	4.42	3.97	
not aggressive/aggressive	4.34	4.15	4.18	
good at concentrating/(distractible)	5.57	5.42	5.50	
nice/nasty	3.43	3.48	3.47	
always careful/accident prone	5.21	5.33	5.23	
wanted/unwanted	4.25	5.25	4.30	* +
tough/vulnerable	5.21	5.63	5.35	
wide/limited general knowledge	5.64	6.00	5.52	
acceptable/unacceptable neighbour	3.67	3.33	3.32	
well treated/hard done by	3.98	4.87	4.55	* +
tidy/untidy	4.39	4.63	3.90	
socially skilled/socially inept	5.27	5.71	5.40	
normal/unusual appearance	4.79	5.00	4.13	+
wanting to join in/preferring (not)	3.10	2.92	3.15	
stable/neurotic	4.44	4.06	4.15	
trustworthy/deceitful	3.27	3.38	3.43	
fine/coarse facial features	4.72	4.96	4.48	
controlled by self/others or Fate	5.28	5.08	5.20	
popular/friendless	4.11	4.73	4.07	*
safe/dangerous	3.59	3.48	3.63	
tonic/strain for family	5.62	5.83	5.40	
nice/nasty to live with	4.02	4.12	3.85	+
unpredictable/predictable personality	3.41	3.71	3.75	+
capable/helpless	4.43	5.04	4.57	+
helpful/unhelpful	3.32	3.42	3.25	
undemanding/demanding	5.52	5.52	5.40	

(N.B. p(x) represents the probability of the occupation x contact interaction)

Subsidiary analyses

Table 2.5 shows mean semantic differential scores for 260 males and 234 females.

ANOVA revealed 19 significant sex differences, which are indicated as before.

TABLE 2.5
Sex differences in beliefs about retardates

	Females		Males	
	Mean	s.d.	Mean	s.d.
trusting/wary	2.86	1.57	2.89	1.57
graceful/unco-ordinated	5.43	1.27	5.55	1.18
talkative/uncommunicative	3.86	1.59	3.98	1.67
secure/insecure	4.31	1.80	4.80	1.68*
quiet/noisy	4.65	1.50	4.72	1.48
friendly/unfriendly	2.42	1.31	2.45	1.21
healthy/unhealthy	3.85	1.60	4.00	1.56
valuable/worthless	3.17	1.45	3.53	1.53*
relaxing/upsetting to be with	4.65	1.46	4.92	1.43+
loving/cold	2.27	1.31	2.51	1.27+
under-estimated/over-estimated	3.00	1.49	3.10	1.54
good-looking/ugly	4.40	1.03	4.67	1.12*
speech clear/speech unclear	5.32	1.29	5.23	1.38
independent/dependent	5.58	1.56	5.42	1.70
contented/frustrated	4.49	1.73	4.71	1.63
active/passive	3.56	1.61	3.42	1.63
able to cope/unable to cope	4.78	1.52	4.90	1.38
good/bad at concentrating	5.34	1.49	5.16	1.59
not lonely/lonely	4.24	1.79	4.65	1.65*
even-tempered/moody	4.86	1.63	4.97	1.52
easy/difficult to relate to	4.61	1.65	4.85	1.64
family's pride/family's shame	4.21	1.35	4.51	1.47+
employable/unemployable	3.85	1.68	4.08	1.82
predictable/unpredictable behaviour	4.98	1.67	4.88	1.47
self-content/wants to be different	3.50	1.67	4.04	1.68*
well-dressed/badly-dressed	3.97	1.42	4.24	1.35+
mature/childlike	5.78	1.17	5.40	1.38*
resistant to illness/frequently ill	4.45	1.35	4.36	1.22
quick/slow	5.37	1.37	5.24	1.45
over-protected/under-protected	3.21	1.46	3.29	1.51
misunderstood/understood	2.74	1.61	2.85	1.74
soothing/embarrassing	4.62	1.20	4.92	1.19*
strong/weak	3.33	1.71	3.65	1.60+
good/bad at expressing meaning	4.96	1.67	5.09	1.55
happy/sad	3.12	1.42	3.68	1.50*
attractive/unattractive friend	4.40	1.30	4.52	1.32
extrovert/introvert	3.97	1.50	3.97	1.45

will find a job easily/will not	6.30	1.13	6.21	1.21
normal/abnormal	5.00	1.43	5.12	1.55
clean/dirty	3.56	1.43	3.56	1.44
reassuring/frightening	4.57	1.26	4.48	1.19
d'ment shaped by environment/birth	4.00	2.03	4.28	1.91
unlike/(like other retardates)	4.16	1.76	4.31	1.70
asset to society/burden to society	4.50	1.35	4.62	1.47
confident/hesitant	4.79	1.37	4.81	1.48
high intelligence/low intelligence	5.16	1.35	4.99	1.53
sexually restrained/permissive	3.88	1.58	3.65	1.47
sensitive/insensitive to others	3.32	1.70	3.30	1.63
calm/excitable	5.63	1.31	5.52	1.35
high self-esteem/low self-esteem	4.47	1.37	4.43	1.39
lovable/repulsive	3.18	1.38	3.69	1.39*
cheering/depressing	4.09	1.63	4.36	1.56
clear thinker/confused thinker	5.22	1.44	5.34	1.24
rich/poor family background	4.04	0.84	4.20	0.95+
knowing/not knowing right from wrong	4.24	1.72	4.10	1.62
complicated/simple	4.26	1.72	4.29	1.66
not aggressive/aggressive	4.34	1.46	4.27	1.44
good at concentrating/(distractible)	5.66	1.39	5.47	1.37
nice/nasty	3.28	1.20	3.56	1.16*
always careful/accident prone	5.22	1.28	5.21	1.22
wanted/unwanted	4.25	1.66	4.47	1.63
tough/vulnerable	5.24	1.64	5.28	1.43
wide/limited general knowledge	5.83	1.19	5.55	1.33*
acceptable/unacceptable neighbour	3.50	1.75	3.68	1.73
well treated/hard done by	4.16	1.86	4.14	1.73
tidy/untidy	4.37	1.51	4.36	1.42
socially skilled/socially inept	5.35	1.21	5.27	1.28
normal/unusual appearance	4.71	1.53	4.80	1.56
wanting to join in/preferring (not)	2.98	1.61	3.18	1.59
stable/neurotic	4.30	1.26	4.45	1.19
trustworthy/deceitful	3.35	1.31	3.25	1.33
fine/coarse facial features	4.76	1.23	4.68	1.34
controlled by self/others or Fate	5.40	1.33	5.12	1.47+
popular/friendless	4.15	1.37	4.17	1.39
safe/dangerous	3.59	1.38	3.56	1.41
tonic/strain for family	5.75	1.23	5.51	1.33
nice/nasty to live with	3.94	1.09	4.05	1.13
unpredictable/predictable personality	3.29	1.65	3.62	1.60
capable/helpless	4.41	1.48	4.52	1.37
helpful/unhelpful	3.14	1.42	3.50	1.46*
undemanding/demanding	5.56	1.58	5.47	1.35

In the same way, Table 2.6 gives mean semantic differential scores according to age.

TABLE 2.6
Mean age effects on beliefs about retardates

Age	<20	<30	<40	<50	<60	>60
trusting/wary	3.37	3.01	2.65	2.13	2.18	2.60
graceful/unco-ordinated	5.46	5.46	5.48	5.51	5.76	5.60
talkative/uncommunicative	4.13	3.94	3.83	3.84	3.97	3.44
secure/insecure	4.45	4.59	4.77	4.04	4.33	5.52
quiet/noisy	4.61	4.58	4.80	4.53	5.24	4.72
friendly/unfriendly	2.49	2.46	2.52	2.29	2.06	2.52
healthy/unhealthy	3.87	4.08	4.17	3.69	3.09	3.68
valuable/worthless	3.36	3.32	3.51	3.53	3.00	3.28
relaxing/upsetting to be with	4.81	4.70	5.05	4.71	4.52	5.00
loving/cold	2.66	2.49	2.31	2.07	2.06	1.92
under-estimated/over-estimated	3.06	3.12	2.79	3.00	3.21	3.20
good-looking/ugly	4.73	4.57	4.52	4.40	3.88	4.72
speech clear/speech unclear	5.36	5.32	5.29	4.80	5.15	5.36
independent/dependent	4.94	5.48	5.88	5.87	5.82	5.68
contented/frustrated	4.88	4.69	4.69	4.31	4.18	3.64
active/passive	3.37	3.55	3.69	3.64	3.12	3.08
able to cope/unable to cope	4.62	4.92	4.95	4.53	4.88	5.28
good/bad at concentrating	4.76	5.19	5.63	5.49	5.39	5.80
not lonely/lonely	4.77	4.32	4.74	4.27	3.97	4.48
even-tempered/moody	5.02	4.81	4.95	4.51	5.33	5.36
easy/difficult to relate to	4.59	4.71	4.85	4.89	4.24	5.56
family's pride/family's shame	4.21	4.42	4.70	4.60	3.94	3.72
employable/unemployable	4.10	3.73	4.13	4.11	4.06	4.24
predictable/unpredictable behaviour	5.02	4.81	4.96	4.93	5.09	5.08
self-contented/wants to be different	4.23	3.82	3.86	3.49	2.33	3.84
well-dressed/badly-dressed	4.04	4.26	4.44	3.82	3.61	3.36
mature/childlike	5.32	5.54	5.60	5.69	5.94	6.28
resistant to illness/frequently ill	4.30	4.50	4.40	4.31	3.94	4.60
quick/slow	5.19	5.23	5.57	5.31	5.21	5.52
over-protected/under-protected	3.41	3.14	3.30	3.04	3.21	3.76
misunderstood/understood	2.87	2.72	2.37	3.04	3.70	2.84
soothing/embarrassing	4.71	4.75	4.96	4.91	4.21	5.00
strong/weak	3.52	3.55	3.82	3.29	2.85	3.16
good/bad at expressing meaning	4.53	5.01	5.23	5.40	5.42	5.48
happy/sad	3.56	3.45	3.65	3.36	2.94	2.52
attractive/unattractive friend	4.39	4.46	4.68	4.53	3.82	4.92
extrovert/introvert	4.19	3.92	3.93	3.93	3.73	3.88
will find a job easily/will not	5.97	6.35	6.36	6.00	6.52	6.44
normal/abnormal	5.11	4.83	5.20	5.07	5.58	5.60
clean/dirty	3.20	3.71	3.93	3.71	3.18	3.12
reassuring/frightening	4.62	4.56	4.61	4.60	3.97	4.16
d'ment shaped by environment/birth	4.42	4.09	3.98	3.71	4.61	4.44
unlike/(like other retardates)	4.28	4.24	4.15	3.67	4.55	4.72
asset to society/burden to society	4.46	4.44	4.71	4.73	4.64	4.92
confident/hesitant	4.51	4.86	4.98	4.73	4.88	5.00

high intelligence/low intelligence	4.70	5.11	5.38	4.73	5.52	5.28
sexually restrained/permissive	3.22	3.72	3.98	4.18	3.97	4.56
sensitive/insensitive to others	2.85	3.28	3.57	3.29	3.70	3.96
calm/excitable	5.62	5.46	5.60	5.40	5.97	5.88
high self-esteem/low self-esteem	4.37	4.48	4.67	4.38	4.15	4.48
lovable/repulsive	3.35	3.49	3.76	3.73	2.61	3.36
cheering/depressing	4.21	4.21	4.27	4.16	4.09	4.60
clear thinker/confused thinker	5.04	5.25	5.55	5.04	5.85	5.36
rich/poor family background	3.96	4.20	4.17	4.04	4.12	4.24
knowing/not knowing right from wrong	4.13	4.10	4.31	4.20	4.15	4.48
complicated/simple	4.29	4.07	4.32	4.58	4.88	4.28
not aggressive/aggressive	4.21	4.28	4.51	4.40	4.18	4.16
good at concentrating/(distractible)	5.48	5.34	5.70	5.71	5.85	6.28
nice/nasty	3.26	3.43	3.65	3.44	3.18	3.68
always careful/accident prone	5.17	5.21	5.33	4.84	5.55	5.08
wanted/unwanted	4.26	4.57	4.74	3.96	3.52	3.72
tough/vulnerable	5.12	5.16	5.51	5.44	5.24	5.44
wide/limited general knowledge	5.56	5.54	5.80	5.78	6.42	5.92
acceptable/unacceptable neighbour	3.50	3.51	3.74	3.82	4.18	3.28
well treated/hard done by	3.98	4.38	4.63	3.47	3.85	3.12
tidy/untidy	4.38	4.37	4.68	4.27	3.88	4.16
socially skilled/socially inept	5.20	5.18	5.56	5.16	5.67	5.60
normal/unusual appearance	4.89	4.70	4.82	4.78	4.21	5.16
wanting to join in/preferring (not)	3.02	3.01	3.49	3.07	2.73	3.20
stable/neurotic	4.47	4.19	4.61	4.31	4.42	4.64
trustworthy/deceitful	3.17	3.20	3.52	3.33	3.67	3.28
fine/coarse facial features	4.85	4.60	4.81	4.78	4.70	4.60
controlled by self/others or Fate	4.93	5.20	5.33	5.49	5.61	5.76
popular/friendless	4.09	4.11	4.52	4.00	3.91	4.24
safe/dangerous	3.54	3.55	3.87	3.64	3.15	3.52
tonic/strain for family	5.55	5.49	5.83	5.38	6.03	6.00
nice/nasty to live with	3.94	4.03	4.18	3.98	3.91	3.60
unpredictable/predictable personality	3.44	3.58	3.12	3.73	3.82	3.04
capable/helpless	4.55	4.36	4.67	4.49	4.64	4.16
helpful/unhelpful	3.40	3.19	3.29	3.36	3.42	3.96
undemanding/demanding	5.48	5.52	5.56	5.47	5.33	5.64

Finally, Table 2.7 gives mean semantic differential scores according to social class.

TABLE 2.7
Mean beliefs about retardates, according to social class

Social class	I	II	III	IV	V
trusting/wary	2.59	2.66	2.81	3.53	2.72*
graceful/unco-ordinated	5.73	5.52	5.45	5.41	5.27
talkative/uncommunicative	4.16	4.08	3.46	4.03	3.78+
secure/insecure	4.33	4.47	4.37	5.02	4.57+
quiet/noisy	4.58	4.44	5.00	4.83	4.45+
friendly/unfriendly	2.48	2.37	2.34	2.66	2.20
healthy/unhealthy	4.33	4.02	3.71	3.92	3.47+
valuable/worthless	3.45	3.11	3.46	3.66	3.35
relaxing/upsetting to be with	4.95	4.63	4.76	5.04	4.48
loving/cold	2.39	2.33	2.40	2.55	2.20
under-estimated/over-estimated	2.80	3.29	3.05	3.03	3.28
good-looking/ugly	4.81	4.49	4.47	4.47	4.27+
speech clear/speech unclear	5.49	5.18	5.26	5.27	5.20
independent/dependent	5.71	5.50	5.44	5.37	5.23
contented/frustrated	4.83	4.46	4.45	4.81	4.18
active/passive	3.56	3.58	3.32	3.54	3.35
able to cope/unable to cope	5.11	4.83	4.72	4.85	4.57
good/bad at concentrating	5.14	5.20	5.42	5.27	4.95
not lonely/lonely	4.51	4.42	4.26	4.69	4.15
even-tempered/moody	4.85	4.65	5.06	5.13	4.52
easy/difficult to relate to	4.96	4.47	4.79	4.95	4.60
family's pride/family's shame	4.79	4.54	4.21	4.23	3.53*
employable/unemployable	4.12	4.02	3.82	3.91	3.93
predictable/unpredictable behaviour	4.74	4.63	5.09	5.26	4.93+
self-content/wants to be different	4.04	3.82	3.40	3.96	3.57+
well-dressed/badly-dressed	4.44	4.09	4.04	4.15	3.32*
mature/childlike	5.48	5.63	5.78	5.43	5.57
resistant to illness/frequently ill	4.61	4.43	4.40	4.20	4.45
quick/slow	5.54	5.22	5.39	5.14	5.18
over-protected/under-protected	3.37	3.09	3.38	3.21	3.10
misunderstood/understood	2.65	3.08	2.76	2.67	3.03
soothing/embarrassing	4.98	4.76	4.71	4.73	4.75
strong/weak	4.00	3.71	3.26	3.05	3.18*
good/bad at expressing meaning	5.26	5.09	4.92	4.88	4.93
happy/sad	3.68	3.45	3.19	3.47	3.03
attractive/unattractive friend	4.69	4.22	4.62	4.57	4.05+
extrovert/introvert	3.94	3.96	3.96	4.08	3.88
will find a job easily/will not	6.39	6.31	6.19	6.22	6.02
normal/abnormal	5.35	4.86	5.18	4.95	4.88
clean/dirty	3.86	3.64	3.28	3.58	3.05*
reassuring/frightening	4.56	4.52	4.49	4.62	4.35
d'ment shaped by environment/birth	4.26	3.94	4.20	4.28	4.45
unlike/(like other retardates)	4.12	4.21	4.18	4.34	4.55
asset to society/burden to society	4.57	4.32	4.87	4.57	4.50

confident/hesitant	4.66	4.69	4.71	5.00	4.93*
high intelligence/low intelligence	5.36	5.14	4.97	4.69	5.18
sexually restrained/permissive	3.81	3.92	3.76	3.55	3.70
sensitive/insensitive to others	3.53	3.21	3.42	3.14	2.82*
calm/excitable	5.32	5.29	5.75	5.93	5.48
high self-esteem/low self-esteem	4.69	4.44	4.45	4.41	4.20
lovable/repulsive	3.76	3.24	3.50	3.52	3.13+
cheering/depressing	4.54	3.86	4.35	4.44	3.88
clear thinker/confused thinker	5.30	5.29	5.25	5.26	5.27
rich/poor family background	4.30	4.12	4.04	4.06	4.07
knowing/not knowing right from wrong	4.16	4.06	4.19	4.39	3.85
complicated/simple	4.38	4.15	4.29	4.25	4.40
not aggressive/aggressive	4.12	4.08	4.25	4.80	4.25*
good at concentrating/(distractible)	5.34	5.49	5.61	5.70	5.63
nice/nasty	3.42	3.31	3.46	3.65	3.18
always careful/accident prone	5.26	5.17	5.19	5.33	4.80
wanted/unwanted	4.86	4.43	4.11	4.26	3.60*
tough/vulnerable	5.46	5.30	5.18	5.06	5.25
wide/limited general knowledge	5.60	5.72	5.60	5.67	5.82
acceptable/unacceptable neighbour	3.61	3.54	3.47	3.85	3.40
well treated/hard done by	4.59	4.43	3.60	4.07	3.35*
tidy/untidy	4.55	4.29	4.50	4.40	3.75
socially skilled/socially inept	5.50	5.27	5.37	5.19	5.10
normal/unusual appearance	4.98	4.67	4.63	4.67	4.73
wanting to join in/preferring (not)	2.94	3.10	3.21	3.07	3.13
stable/neurotic	4.28	4.19	4.39	4.68	4.40
trustworthy/deceitful	3.23	3.34	3.31	3.41	2.88
fine/coarse facial features	4.88	4.72	4.58	4.74	4.40
controlled by self/others or Fate	5.01	5.21	5.20	5.42	5.25
popular/friendless	4.54	4.20	3.96	4.04	3.95*
safe/dangerous	3.50	3.46	3.62	3.83	3.35
tonic/strain for family	5.76	5.48	5.55	5.71	5.63
nice/nasty to live with	4.16	3.80	4.02	4.10	3.85
unpredictable/predictable personality	3.63	3.71	3.31	3.28	3.47
capable/helpless	4.95	4.42	4.09	4.53	4.27*
helpful/unhelpful	3.50	3.29	3.11	3.29	3.57
undemanding/demanding	5.43	5.29	5.53	5.70	5.52

7.4. DISCUSSION

Table 2.1 gives mean semantic differential scores for lay subjects according to their personal acquaintance with retardates. Since scoring was arranged so that a mean <4 and >4 are positive and negative, respectively, it can be seen that retardates received 47 and 59/81 negative ratings from acquainted and unacquainted lay subjects, respectively, ($p = N.S.$ and $<.0001$, Sign Test), which means that the acquainted group is evaluatively neutral. Thus, as predicted, beliefs of acquainted subjects are positive compared with those of the unacquainted group and, contrary to what Gottlieb and Gottlieb (1977) call the "major point of agreement", concepts held by Bristolian laymen in 1980 are not overwhelmingly negative. While it is possible that attitudes on this side of the Atlantic are more positive, it is more in keeping with the present framework to hypothesise that this is a result of current integrative policies and sympathetic publicity. Alternatively, evaluations typically reported in the literature might be misleadingly low, since items seem to be selected because they distinguish retardates negatively. For example, Butt and Signori (1976) it will be remembered, gathered traits shown to be important in hiring situations in which discrimination was shown, then found retardates most handicapped on rated ability. Similarly, Kennon and Sandoval (1978) and many others, reveal particularly negative attitudes on dimensions related to academic skills. The present items, on the other

hand, were chosen empirically for their relevance to retardates and perhaps reflect overall evaluation more accurately, in including the diluting effect of positive evaluations that emerge when the whole spectrum of relevant beliefs is examined. Indeed, some studies might be trivial, since it seems self-evident that retardates will receive negative evaluations on scales relating to intelligence. This idea suggests an interesting series of experiments for future research, in which extremely positive or negative outcomes would be predicted according to the choice of questionnaire scales. Taken a stage further, it also contributes to an explanation of why beliefs and behaviours might not co-incide, since negative (ability) or positive (personal) attributions, for example, might not be relevant to social rejection or acceptance.

It should however, be mentioned that many subjects repeated instructions aloud to check they had grasped them correctly, and in doing so, frequently translated "retardates" into "retarded children", (in which case they were reminded that the label was unqualified). Since Gottlieb and Siperstein, (1976) found "retarded children" more favourably evaluated than "retardates", this mistranslation, if general, might artefactually account for the relatively positive opinions.

Third, Sigall, Aronson and Van Hoose (1970) demonstrated that subjects strive to present themselves in the best possible light, contrary to Orne's (1962) famous maxim that

they co-operate with experimenters. It is therefore possible that attempts to appear warm and sympathetic produced artefactually positive ratings, although anonymity and privacy during testing makes this unlikely.

Table 2.1 shows that on 71/81 scales, acquainted subjects had the smaller score, ($p < .0001$, Sign Test), which indicates directly that they had the more positive opinion, overall. In the negative direction they rated retardates marginally more "dependent" (item 14), "under-protected" (item 30) and "controlled by others or Fate" (item 73) but commonsense suggests these are unlikely simply to reflect evaluation. Rather, they seem also to concern caregiving.

Taken together, lay subjects rated retardates somewhat sexually restrained, which contrasts intuitively with results that might have been found nearer the beginning of the century, when concern at the moral and financial burdens imposed by the sexual proclivities of the feebleminded was widespread. Interestingly, present acquainted lay subjects rated retardates significantly less "sexually restrained", (item 47), which might be the result of practical experience or simply indicative that the dimension is less relevant for them.

Also in the negative direction, acquainted subjects rated retardates marginally less "misunderstood" (item 31) with less "unpredictable personality" (item 78), which makes perfect sense in terms of their greater experience, and

which is unlikely to reflect negative evaluation per se. Finally, their beliefs were slightly more intense on "excitable" (item 49), "abnormal" (item 39) "confused thinker" (item 53) and "low intelligence" (item 46), which at first sight, seem to suggest they find retardates "worse" on 4 salient dimensions. Alternatively, it could reflect a greater concern with their problems, or from another angle, it is consistent with the hypothesis that abnormality per se is of little relevance to the unacquainted layman.

On each of the remaining 71 scales, acquainted subjects gave more positive ratings, and one factor ANOVA revealed a significant difference on 42 of these, (which are marked with a cross ($p < .05$) or asterisk ($p < .01$) on Table 2.1). Some instances where the direction of beliefs differed, stand out because they seem to relate most clearly to caregiving and personal acceptance. For example, unacquainted subjects rated retardates "nasty to live with" (item 77), "depressing" (item 52) "friendless" (item 74), "unwanted" (item 61) and "hard done by" (item 65) whereas acquainted subjects rated them "nice to live with", "cheering", "popular", "wanted" and "well treated".

Other significant differences are too numerous to detail individually, but reference to Table 2.1 shows the acquainted group consider retardates more "trusting" (item 1), "loving" (item 10), "sensitive to others" (item 48), "lovable" (item 51), "nice" (item 59), "wanting to join in" (item 69), "safe" (item 75) and "helpful" (item 80), again

suggesting greater acceptance and social interaction. On the other side of the coin, unacquainted subjects found them significantly more "upsetting to be with" (item 9), "ugly" (item 12), "lonely" (item 19), "difficult to relate to" (item 21), "unattractive friend" (item 36) and attributed them a more "unusual appearance" (item 68), and "coarse facial features", (item 72), showing, as hypothesised, consistently greater emphasis on characteristics relating to bizarre appearance and social rejection. Interestingly, "friendly/unfriendly" (item 6), although in the same direction, failed to distinguish significantly between groups, and perhaps the difference in significance between this and "loving/cold" (item 10) reflects greater involvement and intimacy among the acquainted group.

Finally, unacquainted subjects rated retardates "like others in the same social group" (item 43), while the acquainted group rated them "not at all like others in the same social group", ($p < .0001$). This is of special theoretical interest, because for reasons to be unfolded in the next chapter, it might indicate that the former are more inclined to stereotype. Alternatively, it is possible that acquainted subjects were basing responses on comparisons between real individuals, not abstract beliefs.

In summary, the first hypothesis is strongly supported: lay subjects with contact have significantly different and more positive beliefs to those without. Furthermore, they emphasise caregiving and acceptance while those without

contact emphasise deviant appearance and rejection.

(Although, in fairness, differences were so extensive that these aspects did not stand out specifically.)

Related to the discussion of the previous section (and to anticipate, the results of Study 4) these consistent differences are not hypothesised to indicate that acquainted subjects are kinder on average, or enlightened by experience, but that they are members of a different social system.

In this light, Table 2.1 summarises the retardate role and defines retardation within acquainted and unacquainted social systems. A number of means, however, hover round 4 which means they are irrelevant to subjects as a group. Furthermore, some scales show marked variability, and since the retardate role is viewed as shared normative structures rather than an average of individual beliefs, they are unlikely to be role characteristics. From this position, it is reasonable to adopt mean semantic differential scores <3 and >5 as measures of relevance and intensity together with standard deviation <1.45 as a measure of consensus, in order operationally to define retardate roles.

The retardate role within lay social systems

Unacquainted subjects

unco-ordinated
friendly
upsetting to be with
loving
speech unclear or impeded
childlike
slow
will have trouble finding
a job
excitable
confused thinker
easily distracted
accident prone
limited general knowledge
socially inept

strain for family
demanding

Acquainted subjects

unco-ordinated
friendly

loving
speech unclear or impeded
childlike

will have trouble finding
a job
excitable
confused thinker

limited general knowledge
socially inept
controlled by others or Fate
strain for family

Results further support the hypothesis that the retardate role for uninvolved laymen is evaluatively negative and focusses on characteristics that are important for social interaction. Because of "upsetting to be with" and "demanding", it seems tinged with self interest - a concern with the embarrassment or effort social interaction might involve. Notably, practical aspects relating to confused thought and limited general knowledge appear, but references to abnormality and intelligence per se are missing, which it goes without saying, is not taken to mean that the lay public misunderstand the term. It is also worth pointing out that on 71/81 scales, variance is smaller for unacquainted subjects, which although possibly an artefact of the uneven sample sizes, probably means the retardate role is, firmly defined for them.

Although the retardate role within the social system of personally acquainted subjects is similar, the few differences are interesting. Gone are "upsetting to be with" (item 9) and "demanding" (item 81) and with them, the element of self-interest, so that the remaining negative characteristics seem more an objective account of the problems retardates pose. Second, "slow" (item 29), "easily distracted" (item 58) and "accident prone" (item 60) are missing and third, an addition, "controlled by others or Fate" (item 73) seems both to reflect the responsibility of caregiving and an awareness of retardates' lack of personal freedom. Finally, the item relating to difficulty in finding a job almost certainly reflects general current interests.

So far, only the unidimensional aspect of data has been exploited, and scales have been treated as separate and independent, despite the hint that they might have different qualitative meanings according to their relationships with underlying dimensions. In order to examine possible multi-dimensional differences, data were factor analysed, but unlike Gottlieb and Corman (1975) who performed a single analysis, then looked for differences along factor scores, separate analyses for acquainted and unacquainted subjects were preferred, in order to avoid assuming the existence of a single shared factor structure. Results are given below, but for clarity, only items loading $>.4$ have been included and scales have been identified by the

relevant pole only. In the few cases where a mean differed in direction from the others in a factor, this was problematic. For example, all subjects agreed that retardates are "lovable" not "repulsive", however, in Factor 1 for unacquainted subjects, the former is unacceptable, because it is "repulsive" not "lovable" that increases in intensity with the other items, but this is also inappropriate, because it misrepresents beliefs. In order to cope with such situations, a convention, "(-lovable)" will be adopted.

TABLE 2.1a
Multidimensional meaning of "retardates" for lay subjects

Unacquainted		Acquainted	
FACTOR 1(17.2% variance)		FACTOR 1(17.0% variance)	
embarrassing	.64	socially inept	.69
frightening	.62	bad at concentrating	.66
depressing	.61	childlike	.65
upsetting to be with	.58	limited general knowledge	.60
(-lovable)	.58	easily distracted	.54
unattractive friend	.55	slow	.53
ugly	.52	burden to society	.51
(-valuable)	.45	low intelligence	.49
burden to society	.45	unable to cope	.49
family's shame	.44	abnormal	.45
difficult to relate to	.43	will have trouble finding	
		a job	.44
unusual appearance	.42	helpless	.42
		confused thinker	.40
FACTOR 2(5.8% variance)		FACTOR 2(6.8% variance)	
bad at concentrating	.69	trustworthy	.75
slow	.60	sensitive to others	.63
limited general knowledge	.60	nice to live with	.62
bad at expressing meaning		nice	.57
or desires	.57		
easily distracted	.56	safe	.55
abnormal	.52	(-frightening)	.54
low intelligence	.49	helpful	.52
confused thinker	.49	clean	.48
childlike	.45	popular	.48
socially inept	.44	(-aggressive)	.46
burden to society	.43	sexually restrained	.45
accident prone	.42	lovable	.45
FACTOR 3(3.8% variance)		FACTOR 3(5.1% variance)	
coarse facial features	.52	wanted	.75
controlled by others or		strong	.66
Fate	.50		
unusual appearance	.46	well treated	.58
unwanted	.46	misunderstood	.55
not knowing right from		(-family's shame)	.54
wrong	.43		
socially inept	.42	well-dressed	.47
neurotic	.41	(-unusual appearance)	.44
FACTOR 4(3.6% variance)		FACTOR 4(4.5% variance)	
dependent	.56	upsetting to be with	.74
unable to cope	.55	embarrassing	.67
lonely	.44	(-valuable)	.61
ugly	.44	(-cheering)	.59
vulnerable	.43	unattractive friend	.59
untidy	.41	family's shame	.46
		(-lovable)	.43

FACTOR 5(3.0% variance)		FACTOR 5(3.6% variance)	
loving	.66	excitable	.75
friendly	.64	noisy	.64
trusting	.60	accident prone	.55
nice	.42	active	-.50
		moody	.49
		unpredictable behaviour	.40
FACTOR 6(2.7% variance)		FACTOR 6(3.1% variance)	
low self-esteem	.65	happy	.66
insecure	.50	(-frustrated)	.61
frustrated	.49	(-lonely)	.57
hesitant	.48	healthy	.51
introvert	.46	talkative	.50
lonely	.45	(-frequently ill)	.50
happy	.42	(-aggressive)	.46
(-self-content)	.42	self content	.49
		(-moody)	.41
FACTOR 7(2.4% variance)		FACTOR 7(3.0% variance)	
aggressive	.64	ugly	.69
noisy	.60	(-employable)	.65
strong	-.59	coarse facial features	.62
(-safe)	.45	untidy	.42
excitable	.45		
FACTOR 8(2.3% variance)		FACTOR 8(2.8% variance)	
sensitive to others	.61	trusting	.69
wanting to join in	.55	acceptable neighbour	-.49
helpful	.50	development determined	
		by birth	-.49
speech unclear or impeded	-.43	(-insecure)	.44
		(-poor family background)	.44
		friendly	.44
		loving	.40
FACTOR 9(2.1% variance)		FACTOR 9(2.4% variance)	
hard done by	.60	unlike others in the same	
		social group	.68
development determined		(-simple)	.54
by birth	-.57	(-abnormal)	.43
badly-dressed	.51	unpredictable personality	.41
like others in the same			
social group	-.47	(-low intelligence)	.41
clean	.43		
FACTOR 10(2.0% variance)		FACTOR 10(2.3% variance)	
misunderstood	.53	hesitant	.71
(-simple)	.44	low self-esteem	.60
clean	.40	(-extrovert)	.50
FACTOR 11(2.0% variance)		FACTOR 11(2.2% variance)	
unpredictable personality	-.55	strain for family	.73
(-frequently ill)	.51	helpless	.42
trustworthy	.42		

FACTOR 12 (2.1% variance) dependent	.68
FACTOR 13(2.0% variance) under-protected bad at expressing meaning or desires	-.55 .42
FACTOR 14(2.0% variance) neurotic	.48

Factor 1, which accounts for almost a fifth of overall variance, offers the clearest evidence that beliefs of unacquainted lay subjects primarily concern difficulties and embarrassments posed by social interactions, together with an interest in deviant appearance.

For acquainted subjects, Factor 1 is entirely different. Indeed, only one item is common to both, which confirms that factor structure differs between the groups. Its content, however, is surprising at first: although social incompetence carries most weight, low intelligence and abnormality are included, suggesting a clinical orientation. This might mean that personal acquaintance leads to contact with professionals and services that influences beliefs. Factor 1 also refers to coping, job prospects and so on, which seem to shift the emphasis a little from intra-organismic pathology and suggest a concern with care and support, (an interpretation, that supports the previous argument that marginally more negative scores on "abnormal", "low intelligence" and "confused thinker" on the part of acquainted subjects, might reflect concern, not evaluation.) In this way, a more realistic perspective is given to the

present approach: the prediction that acquainted subjects would show a primary concern with caregiving and would be more accepting, coupled with their comparatively positive evaluations, made it easy to assume they would show a sentimental interest in love and friendliness, together with a belief that caregiving is pleasant and trouble free. Factor 1, however, suggests that their primary concern is an assessment of the burden that has to be shouldered.

Factor 2 (for acquainted subjects), on the other hand, reflects a human interest in personality characteristics, which is positive in tone and reminiscent of Gottlieb and Corman's (1975) positive stereotype.

In contrast, Factor 2 for the unacquainted group focusses squarely on subnormal intelligence, particularly its manifestations in thought and knowledge, together with social incompetence and abnormality and therefore, it resembles the medical perspective. Interestingly, its presence and secondary position offer empirical support for the earlier argument that the uninvolved layman's definitions in terms of social characteristics reflect his primary interests, not a misconception of the term.

Although it concerns appearance, Factor 3 for unacquainted lay subjects does not seem to represent a meaningful dimension. Factor 4 focusses on dependency, but is coloured by "ugly" and "lonely" which suggest it is an unwelcome burden.

Factor 3 for acquainted subjects is also difficult to label, but clearly it concerns acceptance, understanding and caregiving. Interestingly, the loading on "misunderstood" is reversed, which shows that, in this context, it is negatively valued. Factor 4 is interesting because it overlaps with Factor 1 for the unacquainted group, in dealing with the social encumbrance of being with a retarded person. Again, this adds a realistic touch by suggesting that acquainted subjects are not impervious to the difficulties of interacting with retardates and the responses of others, but clearly, this is a fourth, not a first concern, and, the absence of scales relating to appearance and fear suggests interaction is not shunned by them.

A number of fairly clear traits follow: Factor 5 for unacquainted subjects is reminiscent of the positive stereotype, but somehow, its subsidiary position and small number of scales make it seem niggardly, and intuitively, it seems patronisingly to list a few "obligatory traits". Low self-esteem probably best describes Factor 6, whereas Factor 7 in which the loading of "strong" is reversed, might be described as "threateningness".

Factor 5 for acquainted subjects, on the other hand, clearly describes a boisterous dimension in which the loading on "active" is similarly reversed, indicating that it is negatively valued in this context, where it contributes to the chaos. Factor 6 which is difficult to label, concerns emotional and physical well-being.

Factor 7 is interesting: it centres on appearance, but this is related to employability, which changes the focus from self-interested anxiousness about social interaction, to genuine concern.

Factor 8 for unacquainted lay subjects seems to represent a belief that retardates desire human contact, but a negative loading on "speech unclear" suggests this is dogged by impeded speech. Intuitively therefore, the factor seems to carry built-in social rejection.

Finally, Factors 9, 10 and 11 for the unacquainted group, which account for little variance, defy simple labels. The former seems to conceptualise retardates as at the mercy of others, while the presence of "clean" makes Factor 10 puzzling. Finally, Factor 11 shows that unpredictability of personality is negatively valued when linked with trustworthiness.

Six factors yet remain for the acquainted group: Factor 8 is unclear because positive personal traits covary with unacceptability as a neighbour. Factor 9 seems to represent the opposite of depersonalisation, while the remainder cover self-esteem, the burden imposed on retardates' families, dependency, under-protection and neuroticism, respectively.

To summarise, factor analytic results are consistent with predictions in two ways. They demonstrate that acquainted and unacquainted subjects' beliefs about retardates differ in structure and content and that the latter primarily focus

on social stimulus characteristics from a self-interested point of view; and the former, though less clearly, on acceptance and caregiving.

At this point it is worth pausing to raise two general issues. The first concerns a distinction between roles - prescriptive expectations about the behaviour of people holding particular positions in society - and stereotypes. Guskin (1963) remarks on their similarity, but attempts several distinctions. Stereotypes, he suggests, are sets of associations about groups of people. For present purposes, however, this is not helpful, since many groups, like doctors or retardates are associated with positions in society.

Second, he continues, stereotypes usually focus on traits and roles, on behaviour. For present purposes, this too is of limited use, because traits and behaviours can shade into each other - "wanting to join in" - for example, could be either. Third, Guskin remarks that a high degree of consensus is frequently held to be an essential property of stereotypes, but because of the shared aspect of normative expectations, this once more fails to provide a distinction.

Finally, Guskin lists unfavourableness, inaccuracy and distortive power as appertaining to stereotypes and these, I think, hold the key to a more useful distinction. The latter terms are active and suggest that stereotyping concerns the effect of role expectations on the *perception of*

individuals. Such perceptual effects form the topic of the next chapter: for present purposes, it is sufficient to point out that the difference between role and stereotype seems one of emphasis and application. Thus, retardate "role" and "stereotype" are regarded as essentially the same.

The second general issue concerns stigma, which Goffman (1963) defines as the difference between real and virtual characteristics of a stigmatised group. It should be clear by now that the "real" characteristics of retardates might represent an ideal form in Plato's terminology, but here, and most probably in Mercer's view, they are "nonsense", in that all characteristics are virtual, that is, believed real. In other words, there is no absolute truth against which stigma may be measured, and establishing a criterion is largely a matter of deciding which normative structures to "back". In this light, it seems reasonable to operationalise stigma as the negative difference between beliefs of unacquainted and acquainted subjects. However, this raises an anomaly which introduces the first subsidiary analysis. Most researchers seem implicitly to regard beliefs of professionals as "real", but it seems likely that influences of medical and statistical models may make these as negative - or more so - as those of lay people. Thus, some revision of the conceptual and empirical nature of stigma seems needed.

Table 2.2 gives mean semantic differential scores for 28

psychologists who were acquainted with retarded people, and 23 who were not. Before examining results, however, it is sensible to point out that the designation, "psychologist", might be premature since most subjects were recruited at a post-graduate conference. Moreover, specialist interests straddled animal behaviour, neurophysiology and computer intelligence, to name but a few areas. Thus many subjects might have been equivalent to laymen in having no direct professional interest in subnormality.

Inspection of Table 2.2 shows that the overall effect of contact on psychologists' beliefs has sunk to chance level, those personally acquainted giving the most positive opinion on 43/81 items. In keeping with this picture, ANOVA was significant on only four scales. Those with contact believed retardates to be significantly more "noisy" (item 5, $p = .01$) and "excitable" (item 49, $p = .02$). In addition, they believed them "complicated" with "unpredictable personality" while psychologists without contact rated them "simple" and "predictable" (item 56, $p = .04$; item 78, $p = .002$).

The keen eye notes again, that variance is smaller among psychologists without contact on 61/81 variables, and although differences in sample size might again account for this, the proportions are reversed compared with the lay sample, (that is, slightly more psychologists had personal contact), so divergent sample size is unlikely to serve as reason in both cases. Rather, it appears that acquaintance

is associated with less firm expectancies, perhaps because personal experience as well as normative beliefs are expressed. Despite this, since contact had no overall effect on evaluation or the intensity of beliefs, results are nevertheless taken as supporting the hypothesis that contact leaves psychologists' beliefs essentially unchanged. Therefore, although further research is clearly needed, psychologists will be regarded as a single group.

Examination of Table 2.2 shows that they evaluated retardates negatively on 60/81 scales, ($p < .0001$), which makes their opinion marginally more negative than that of unacquainted lay people. Within the present social approach, needless to say, this is not taken to mean that psychologists are unsympathetic people, but that their beliefs reflect the negative evaluations intrinsic to statistical and medical perspectives. Indeed, the fact that the majority was personally acquainted with a retardate makes this all the more striking and clearly, "stigma" if defined as the difference between psychologists' and lay beliefs, would lose its usual meaning.

For psychologists, the retardate role may again be operationally defined by identifying scales on which beliefs were most intense and consensual, although because agreement was generally high, the latter criterion has been made stricter ($s.d. < 1.35$) in order to select a manageable number of scales.

The retardate role for psychologists

trusting
unco-ordinated
friendly
loving
underestimated
speech unclear or impeded
dependent
unable to cope
bad at concentrating
family's shame
childlike
slow
understood
bad at expressing meaning or desires
will have trouble finding a job
abnormal
low intelligence
excitable
confused thinker
easily distracted
accident prone
unwanted
vulnerable
limited general knowledge
socially inept
wanting to join in
strain for family
helpless
demanding

Even with stricter criteria and a higher proportion of acquainted subjects, more scales seem salient for psychologists, which suggests they have more expectations about retardates. Beliefs seem objective, since "upsetting to be with" (item 9) which gave the beliefs of unacquainted lay subjects a self-interested flavour, and "controlled by others or Fate" (item 73) which seemed to tinge those of acquainted lay subjects with an air of concern, are not present. In contrast, "dependent" (item 14), "unable to cope" (item 17), and "helpless" (item 79) together with "understood" (item 31) seem conveyors of a professionalised attitude that retardates are patients, not people which is

consistent with the hypothesis that normative beliefs can be related to the interests and purposes of social systems.

To move to the second subsidiary analysis, Table 2.3 gives mean semantic differential scores for 22 teachers who were, and 18 who were not personally acquainted with a retardate.

Apart from the very small numbers, the sample, it is important to note, was somewhat "contaminated", in that it contains at least two special teachers, who merely gave their occupation as "teacher", but who later happened to mention that they, in fact, taught retardates, by which time, their anonymous questionnaires had been pooled with others, and could not be identified. Clearly, it is a worry that other teachers were similarly unspecific, but since, their beliefs are of secondary interest within the present study, this aspect is simply regarded as an informal pilot.

Examination of Table 2.3 shows that acquainted teachers were ambivalent in their overall evaluation of retardates, while their unacquainted peers were categorically negative, (41/81, NS; 61/81, $p < .0001$).

In more detail, unacquainted teachers evaluated retardates less positively on only 10/81 items, none of which was significant. They rated them marginally more "unco-ordinated" (item 2), "will have trouble finding a job" (item 38), "excitable" (item 49), "accident prone" (item 60), and a greater "strain for family" (item 77). In addition, they rated them less "under-estimated" (item 11),

"misunderstood" (item 31), "unpredictable personality" (item 78), "complicated" (item 56) and "nice" (item 76). Clearly these items are unlikely directly to reflect evaluation per se, but may simply reflect greater experience.

On the remaining 71/81 items, personally acquainted teachers gave the more positive response, ($p = <.0001$, Sign Test).

According to one factor ANOVA, intensity of beliefs differed significantly on 17 variables: teachers with contact rated retardates more "secure" (item 4), "friendly" (item 6), "loving" (item 10), "lovable" (item 51), "wanting to join in" (item 69) and "trustworthy" (item 71). In addition, they rated them less "family's shame" (item 22), "embarrassing" (item 32) and "frightening" (item 41) with less "coarse facial features" (item 72). Finally, acquainted teachers believed retardates "valuable" (item 8), "healthy" (item 7), "relaxing to be with" (item 9), "self-content" (item 25), an "asset to society" (item 44), "safe" (item 75) and "nice to live with" (item 77) while the unacquainted group rated them "insecure", "unhealthy", "upsetting to be with", "would like to be different" "burden to society", "dangerous", and "nasty to live with", respectively.

These consistent differences again suggest that acquainted and unacquainted teachers should be treated as separate social groups, and, applying the stricter criteria, (mean

<3.0 or >5.0; s.d. <1.35), roles within each may be operationally defined.

The retardate role for teachers with and without personal contact

Acquainted

trusting
unco-ordinated
friendly
healthy

loving

dependent
unable to cope
bad at concentrating

childlike
slow

will have trouble finding a job

low intelligence
excitable

confused thinker

accident prone
vulnerable

socially inept

strain for family
demanding

Unacquainted

unco-ordinated

upsetting to be with

under-estimated
speech unclear or impeded
dependent
unable to cope

difficult to relate to
family's shame
childlike
slow

misunderstood
embarrassing

will have trouble finding a job
abnormal
burden to society
low intelligence

low self-esteem
confused thinker
easily distracted
accident prone

limited general knowledge
socially inept
controlled by others or Fate

The items unacquainted teachers do not share with their acquainted peers, centre very much on abnormalities, difficulties of caregiving and the embarrassments of social interactions. More striking are the few held by acquainted teachers that do not overlap with the unacquainted group. Clearly these include positive personal characteristics together with "excitable" (item 49), "demanding" (item 81)

and "strain for family" (item 76), which in contrast to "family's shame" (item 22) and "burden" (item 44), seem to represent retardates as challenging, exhausting individuals rather than shameful millstones.

In summary, the beliefs teachers of normal children have about retardates seem similar to those held by lay people, a result predicted by the present paradigm in which there is little reason to assume 'ordinary' teachers represent a body with special interests in subnormality. Thus, personal contact was expected and found to be associated with a marked increase in positive evaluation, together with an interest in caregiving and social acceptance. Beliefs held by teachers of retarded children, on the other hand, are hypothesised to be unaffected by personal contact, because, as it did with psychologists, contact is expected to represent professional experience for them. However, since special teachers by definition have had contact with retardates, this could not be tested in the present between subject design, and must await a future opportunity.

To recap, individual analyses of contact within lay and professional groups firmly support predictions. Lay subjects and teachers showed an interest in social interaction rather than abnormality and intelligence, and personal contact was associated with marked increases in positive evaluation together with an emphasis on personal acceptance. Indeed, differences were so robust, that they suggested subjects with and without acquaintance should be

treated as members of different social systems. Beliefs of psychologists, in contrast, were essentially unchanged by contact and as a group, they evinced a negative overall opinion together with an interest in abnormality and pathology.

In order to elaborate these findings further, lay subjects, psychologists and teachers were directly compared by two factor ANOVA (with 3 levels on the first, occupation, and 2 on the second, contact), in order to examine main effects of occupation and occupation x contact interactions. However, because of the divergent sample sizes, the relatively small numbers of teachers and psychologists together with some reservations concerning the "purity" of samples, these comparisons should only be taken as preliminary.

Table 2.4 gives mean semantic differential scores for each occupational group, and shows that psychologists gave the most negative evaluations overall, while there was little to choose between teachers and lay people, ($p_{55:9:17} = <.001$, chi square). (Conversely, the figures for the most positive evaluations were 16:37:28, although these are less impressive because of the relatively high proportion of acquaintance among teachers compared with lay subjects). ANOVA yielded 24 significant main effects for occupation, and when this occurred, t tests were used to pinpoint the difference.

Psychologists rated retardates "unhealthy" (item 7) and

"weak" (item 33) while lay people and teachers rated them "healthy" and "strong". Similarly, psychologists' beliefs were significantly more intense on "low intelligence" (item 46), "unable to cope" (item 17), "frequently ill" (item 28), "slow" (item 29), "bad at expressing meaning and desires" (item 34) and "helpless" (item 79), and in each case, a t test showed a significant difference between them and lay subjects, but no difference between lay subjects and teachers. These stand out in particular because psychologists seem to emphasise intelligence per se and pathology, together with a professionalised attitude that retardates are passive patients, not people.

Several more variables followed the same pattern: psychologists rated retardates greater "family's shame" (item 22), and gave more intense ratings on "unattractive friend" (item 36) and "will have trouble finding a job" (item 38). Similarly, they rated them "dirty" (item 40), and were neutral on "insensitive to others" (item 48), whereas lay subjects and teachers rated them "clean" and "sensitive to others". In addition, psychologists attributed retardates more "low self-esteem" (item 50) and categorically believed them "friendless" (item 74) and "unwanted" (item 61) while means for teachers and lay subjects hovered around neutral. The latter was qualified by a significant interaction, contact being associated with more positive views for teachers and lay subjects, but more negative views for psychologists, but since none of these

variables seems directly relevant to the interests and purposes of psychologists, it is hypothesised that they represent a negative "halo effect" of statistical and medical models.

Finally, psychologists believed retardates have "poor family background" (item 54) while teachers and lay subjects were ambivalent, a result which adds some internal validity, since it seems reasonable to assume that psychologists should be more aware of this statistic.

This leaves 11 significant differences which did not follow quite the same pattern: psychologists rated retardates most "hard done by" (item 65) and teachers agreed, while lay subjects believed them marginally "well treated". T tests confirmed that the former groups differed from lay subjects but not each other, but the finding is qualified by an interaction in which contact was associated with more positive opinions for teachers and lay subjects and more negative opinions for psychologists, which intuitively supports the hypothesis that contact represents "experience" for psychologists, since it is as if acquainted psychologists are thinking of institutions, for example, and acquainted lay subjects and teachers of more homely care.

Psychologists rated retardates most "ugly" (item 12) with most "unusual appearance" (item 68), but in both cases, t showed they differed from teachers, not lay subjects, which is consistent with the lay emphasis on bizarre appearance,

but which warns that teachers and lay subjects may not be entirely equivalent.

The three significant differences where psychologists did not give the most negative evaluation, are interesting. Teachers rated retardates lowest on "bad at concentrating" (item 18), which seems relevant to their profession, in contrast to "low intelligence" per se (item 46) which seems more to represent a symptom and hence to "belong" to the psychologists. "Difficult to relate to" (item 21) followed the same pattern, but perhaps this has a different connotation for teachers and refers to classroom behaviour.

Finally, lay subjects rated retardates more "moody" (item 20) and "excitable" (item 49) which fits with the hypothesis that they are most concerned with deviant behaviour. (In the former case they differed only from teachers and in the latter, from both teachers and psychologists.)

Apart from the two instances already described, no main occupation effects were qualified by interactions. However, there were 6 significant interactions, unaccompanied by the former. The majority follow the same pattern as before:- teachers and lay subjects with contact believed retardates less "insecure" (item 4), "noisy" (item 5) and "burden to society" (item 44) whereas for psychologists, contact had the reverse effect. Similarly, teachers and laypeople without contact rated retardates "nasty to live with" (item 77) while their acquainted peers rated them "nice to live

with", and psychologists showed the reverse.

Interestingly, teachers and lay subjects with contact attributed retardates marginally more "unpredictable personality" (item 78), whereas, in the reverse direction, psychologists with contact believed them predictable, which suggests that contact makes the former groups see retardates as individuals whereas for psychologists it makes them into better understood patients.

The final interaction did not follow this pattern and is of little interest, since it simply reveals that teachers predominantly accounted for acquainted subjects' belief that retardates are more "friendly" (item 6).

To summarise, this analysis supports predictions in confirming that psychologists have the most negative beliefs about retardates and that ordinary teachers do not differ markedly from lay people, a finding that puts into perspective the recurring emphasis on negative teacher attitudes (e.g. Parish, Dyck and Kappes, 1979; Burden, 1977; Foster and Keech, 1977 and Carroll and Reppucci, 1978) by revealing that teachers are not *comparatively* negative.

Further subsidiary analyses were undertaken to examine sex, age and class effects, but these are not of central interest and will only be briefly described.

Table 2.5 gives mean scores for 234 females and 260 males.

Females evaluated retardates more positively on 51/81 variables, ($p < .05$, Sign Test), which agrees with many studies (e.g. Gottlieb and Corman, 1975; Carroll and Reppucci, 1978; Greenbaum and Wang, 1965 and Butt and Signori, 1976). To be consistent with the present framework, it is argued that these differences result from conformity to different social norms, and it is worth looking more closely to see if any evidence for this can be discerned.

ANOVA yielded 19 significant differences: females believed retardates are more "happy" (item 35), "nice" (item 59), "lovable" (item 51), "helpful" (item 80) "loving" (item 10), "self-contented" (item 25), "strong" (item 33) and "valuable" (item 8). Similarly, they rated them less "lonely" (item 19), "ugly" (item 12), "upsetting to be with" (item 9), "embarrassing" (item 32) and "insecure" (item 4), less their "family's shame" (item 22) and from less "poor family background" (item 54). Finally, they rated them "well dressed" (item 26) while males rated them "badly dressed". Thus, there is some indication that females place more emphasis on personal feelings and the family, values traditionally associated with feminine roles.

In the negative direction, females were more intense on "controlled by others or Fate" (item 73), which as discussed before, might not reflect negative evaluation. Similarly, females believed retardates more "childlike", but it is possible that this scale has different connotations for the

sexes, perhaps denoting immaturity for males but innocence and vulnerability for females. Finally, women believed retardates have significantly more "limited general knowledge" (item 63). Closer examination of Table 2.5, however, shows all but one of the other items relating to intelligence and social competence followed (insignificantly) the same pattern, but perhaps this seeming emphasis on subnormal functioning merely reflects an interest in how much care-giving is needed.

Many of the remaining items on which females gave (insignificantly) more negative responses may more easily be attributed to normative expectations of a feminine social system. For example, females rated retardates more "dependent", "frequently ill", "passive", "accident prone", "demanding" and a greater "strain for family". A bad joke is irresistible - rather than representing negative evaluation per se, these items seem to suggest that women think retardates need mothering! Of course, the expectations of a masculine social system are also fitted by default: males rated retardates as less "frightening", "aggressive" and "dangerous" and consonant with the notorious double standard, more "sexually restrained".

To summarise, the relatively positive attitudes of females are attributed to the norms of masculine and feminine social systems, and while it might be argued that different social systems merely reflect fundamental biological differences,

the^{h/mel} explanation is preferred in that it is consistent with the present approach and more economical.

Table 2.6 shows semantic differential scores for each 10 year age group. The numbers of most positive and negative responses, which differed significantly according to chi square ($p < .0001$) are summarised below, where it can be seen that subjects aged 21 to 30 were least, and subjects aged 31 to 40, most negative. Similarly, those aged 31 to 40 were least and those from 51 to 60, most positive in their beliefs about retardates.

Age	<20	<30	<40	<50	<60	>60
n	119	182	78	45	31	26
No. of most + means	11	11	3	15	29	12
No. of most - means	9	2	28	4	14	24

The reciprocal nature of positive and negative responses for subjects aged <40, suggests they have the most negative view of retardates. However, younger subjects tend to be less positive *and* less negative and older subjects more negative *and* more positive, which means that response style rather than evaluative differences might be responsible or, younger subjects might simply feel less strongly about retardates. Data support Gottlieb and Switzky (1982) who suggested positive and negative beliefs about retardates represented separate dimensions.

Like that of Gottlieb and Switzky, present data indicate no consistent trends. Different cutpoints, however, can give different pictures, and if like Hollinger and Jones (1970) age groups from 20 to 30, 30 to 50 and over 50 had been used, a consistent trend for older subjects to grow more intense (i.e. positive *and* negative) would have been observed.

Finally, the relatively large numbers in the 20 to 30 age group represent the fact that virtually all the psychologists were post graduates. Noticeably, however, the negative opinions previously associated with psychologists are not in evidence. This it is hypothesised, is because the majority of teachers also fell into this group. In other words, age and occupation, are not independent.

In summary, more consistent age effects might emerge in the literature if researchers employed longitudinal designs, provided some means of dealing with secular changes could be found. This is because inconsistent effects might be due to a failure in cross-sectional designs to match subjects, particularly for profession. Second, an objective way of ear-marking cutpoints, perhaps based on life events, like leaving school, marriage or parenthood, might also introduce greater consistency into results.

Few studies examine the effect of class on the evaluation of retardates. Gottlieb and Corman (1975) used educational level to determine it and found that those from middle

strata rated retardates less physically and mentally handicapped than those above or below. Gottlieb (1974) found lower class children were more accepting towards retardates, and similarly, Greenbaum and Wang (1965) found lower class subjects generally more positive. The present subject sample was grouped according to The Registrar General's (1970) classification of socio-economic status, and Table 2.7 gives variable means for classes I, II, III, IV and V, and as summarised below, those in social class I gave the highest number of most negative and the fewest most positive responses (42 and 9, respectively), whereas the picture is almost perfectly reversed for class V. (As an aside, the slight deviation, that is the score of 4 most negative responses from class II, is in keeping with Gottlieb and Corman's results and would be more striking if subjects were grouped into top (I), middle (II and III) or bottom (IV and V) strata. If II, III and IV formed the middle group, on the other hand, a smooth progression would result.)

Class	I	II	III	IV	V
n	113	126	101	111	40
No. most - means	42	4	6	24	5
No. most + means	9	17	10	10	35

The finding that low SES groups are more positive towards retardates is clearly supported. This, Greenbaum and Wang (1965) patronisingly attributed to the relative lack of educational skills in the lower echelons, from where, they

assumed, retardates would not appear so incompetent. The present approach suggests a more satisfying explanation: by definition, those having professional contact with retardates are concentrated in social class I. Thus, occupation rather than class per se might account for the negative skew. Indeed, the relatively positive opinions of teachers most probably accounts for results in class II.

Kushlick and Blunden (1974) show that mental retardation is more widespread in the working classes, and it was thought that more instances of personal contact might further account for the relatively positive opinions of class V. However, data did not support this idea, since even controlling for psychologists, there was no evidence that contact varied with class. Nevertheless, it remains likely that the *nature* of contact will correlate with class, since it is most likely to represent "experience" for the upper strata, and therefore to steepen the evaluative gradient.

In conclusion, inconsistent class effects in many studies might simply reflect failure to take occupation into consideration.

Overall therefore, there is some evidence that the present paradigm might more efficiently explain sex, age and class effects by relating them to social system membership rather than individual differences.

Concluding Summary

This chapter was predicated on Tajfel's (1972) fundamental axiom that the interests and purposes of perceivers rather than objective reality determine the way in which stimuli are categorised. It was found that Mercer's (1973, 1977) social model of retardation best accommodated this view and "retardate" was accordingly defined as a social status with retardation as the associated normative expectations.

Characteristics attributed to retardates at other places and times were related to prevailing normative structures and these ideas also brought form and sense to empirical studies of beliefs about retardates. Subsequently, an attempt was made to predict from some social institutions what present beliefs might entail and these predictions were tested in an ecological experiment (Bronfenbrenner, 1979) in which the accommodation between human and environment was examined by comparing beliefs of subjects from contrasting ecological systems (in this case, lay and professional).

The lesson to be drawn from this chapter is that mental retardation is not necessarily an intrinsic function of the retardate, but also a function of beliefs, and since these may be related to social norms, retardation is also a function of the macrosystem, inextricably linked with ideologies and cultural history.

Thus, amelioration of retardation can be initiated by changes in public policy or fashionable beliefs, and need not wait for a medical breakthrough.

CHAPTER 3

Social Categorisation of the mentally retarded: a mechanistic link between macrosystems and perception

1. Introduction

The previous chapter ended with the notion that mental retardation is not only a function of the retardate, but also of his macrosystem. However, while organisational features of a society can no doubt influence retardates directly, the present interest is in social psychological pathways whereby exo, meso and microsystems might contribute to their development. This is a tall order and only a single route generated from Tajfel's work will be identified.

The first step, which, like an overheard telephone conversation, will be confined to others, pinpoints a mechanism whereby normative expectations can affect the perception of and hence behaviour towards retardates.

2. Tajfel's approach to stereotyping

Tajfel (1972) argued that categorisation has inductive and deductive aspects. The former, which refers to the way in which characteristics become associated with a social category, was partially explored in the previous chapter. The latter, which refers to the way individuals are assigned those characteristics on the basis of category membership, forms the basis of this chapter, and clearly describes the sought for mechanism which through social perception, links macrosystems with the developing individual.

The seminal research, for present purposes, was a series of experiments in which Tajfel and Wilkes (1963) demonstrated that judgements of length were biased by the way subjects classified stimuli.

Their paradigm was rather complex, but essentially, there were two sessions which were separated by a week, and subjects estimated the length of 8 lines, successively presented in random order, under one of three conditions:

1. the 4 shorter lines were labelled "A" and the 4 longer, "B", so that classification was perfectly correlated to length,
2. lines were alternately labelled "A" and "B", so that the relationship between classification and length was neither meaningful nor consistent,
3. lines were unlabelled.

Intra-class convergence and interclass divergence in judged length was predicted in condition 1 relative to condition 3, because subjects were expected to infer class membership from the labels, and this, in turn, was expected to provide additional information that would lead to an emphasis of "shortness" or "longness". No such effects were predicted for condition two.

These biases, it was further hypothesised, would increase with salience of the categorisation and experience in judging the labelled series.

Dependent measures and results were also rather complex. First, interclass divergence was defined as the difference between the longest short and the shortest long line

(referring, in other words, to the distance between class boundaries, not class means). This was 100% larger than the actual difference when stimuli were consistently labelled and 11% larger when they were not. In the second session, the figures were 122% and 44%, respectively. Intraclass differences, however, did not significantly follow predictions.

In order to analyse results, linear functions were fitted to judgements for stimuli within each class. Thus, the gradients not only provided measures of perceived intraclass differences which could be separately analysed, but also affected the derived interclass difference. This latter measure, therefore, reflected combined predicted effects, and was subjected to ANOVA. In this way, superimposed classification was found to determine a significant increase in perceived interclass difference in both first and second sessions, ($p = .025, .05$, respectively).

With respect to the subsidiary hypotheses, it had been assumed that simultaneous rather than successive presentation of stimuli in a pretest session, would increase the saliency of the categorisation, but this had no effect on results.

The effect of experience was insignificant when assessed by comparing first and second experimental sessions. Some subjects, however, underwent two tests *within* a session, and in the second, classification was associated with a more

significant increase in perceived interclass divergence, and in addition, a trend towards intraclass convergence.

Finally, statistical comparisons between first and second tests showed practice significantly to increase interclass divergence and intraclass convergence for classified compared with control conditions.

In summary:-

1. Classification superimposed on a series of stimuli, led to an exaggeration of perceived interclass differences when there was a meaningful relationship between the classes and the dimension of interest.
2. Exaggerated intraclass similarity was not directly established, but did occur with practice, and therefore might have been established overall had more trials been given.
3. Similarly, although the manipulations to increase salience of the classification had no effect, it remained likely that more definite increases in the relevance of classification to judgements would increase biases, and indeed, Tajfel (1981, 1981a) points out that this prediction was later confirmed.
4. Predicted biases increased with experience (within an experimental session).

The underlying rationale was that according to the inductive aspect of categorisation, longness and shortness would be associated with class membership, and then, according to the deductive aspect, they would be assigned to stimuli, and this would result in the increased perceived interclass difference and intraclass similarity. As Tajfel and Wilkes and more recently, Eiser (1979) and Tajfel (1981a) noted, however, the precise effect of classification depends on the information it offers regarding stimuli. Indeed, Eiser gives a sophisticated account of the "cognitive algebra"

that might be involved, demonstrating that any configuration of interclass divergence and intraclass convergence can be predicted according to the relationship between stimulus attributes, the attributes associated with class membership and their relative weights. Because of its importance, it is worth labouring this point somewhat. Eight lines ranging from 1 to 8 inches in length shall serve as example stimuli, 1 to 4 forming a short, and 5 to 8, a long class. Thus, judged length can be expressed as a weighted function of actual length plus a weighted function of the length predicted on the basis of class membership. Assuming a reciprocal relationship between weights, a variety of outcomes may be predicted. For example, if class membership suggests values 2.5" and 5.5", respectively, one limiting condition would be when the weight associated with actual length was zero, in which case, stimuli would be perceived as $0(1) + 1(2.5)$; $0(2) + 1(2.5)$ $0(8)+1(5.5)$. i.e. total intraclass convergence would have occurred and four lines of 2.5" and 4 at 5.5" would be perceived. If weights associated with actual length were high, intraclass convergence is small, but substantial interclass divergence could still occur if the difference between expected class values was high. With paper, pencil and patience, any number of examples may be generated, (including those with increased intraclass divergence, if weights associated with stimuli are greater than one.)

Thus, although it was never made explicit, the fact that

intraclass convergence and interclass divergence were predicted, suggests subjects were expected to associate class membership with values corresponding to the means of stimuli groups.

Detailed evaluations of Tajfel's approach in relation to theories of perceptual biases that were current at the time are to be found in Eiser (1979) and Tajfel (1981a). More relevant for present purposes is that these experiments were intended to demonstrate that shifts and biases in stereotyped judgements can be subsumed under the general cognitive effects of classification. In other words, judgements of individuals on continuous dimensions like skin colour, intelligence or personal traits are analogous to the judgements of length, and when a social classification like race, (or retardation, it is argued) that is believed to correlate with the focal dimension is super imposed upon it, class membership provides additional information that biases judgements. Thus, the great importance of Tajfel and Wilkes paradigm was not that it succeeded wholeheartedly in demonstrating stereotyping in judgements in length, but that it showed the perceptual homogenisation of outgroup members and the intergroup differentiation that are known to characterise stereotyped judgements in human interactions (Ehrlich, 1973), can be understood through general cognitive principles. Indeed, Turner (1981a) writes that in its cognitive aspects, stereotyping can be considered to a large extent, the operation of Tajfel's approach in the perception

of social groups. Furthermore, the ambiguity and complexity of social situations, the frequent saliency of social categories and their importance for maintaining self-esteem and expressing values, combine to enhance its effect. (e.g. Tajfel and Wilkes, 1963; Tajfel, 1972, 1978, 1981, 1981a).

The previous chapter provided some notion of beliefs associated with retardates. According to Tajfel's approach, these should provide additional information which will bias the perception of individuals labelled mentally retarded. Armed with this hypothesis, a journey into the relevant literature will be ventured.

3. Tajfel's approach to stereotyping and the literature on labelling the mentally retarded

At first sight, the literature concerning labelling the retarded seems both confused and confusing. While it is generally accepted that classification is necessary because retarded individuals must be identified before they can be helped, (Clarke and Clarke, 1974; Carroll and Reppucci, 1978), its effects are traditionally condemned because, as the previous chapter showed, it generates negative expectations which are feared to underpin dire effects, like self-fulfilling prophecies in educational settings (Foster and Keech, 1977; Parish, Dyck and Kappes, 1979; Foster, Schmidt and Sabatino, 1976); failure of community integration programs, (Gottlieb, 1975a) and isolation and rejection of labelled children, (Gampel, Gottlieb and Harrison, 1974), for example. Underlying such studies, is the assumption that classification leads to stereotyping and the assignment to individuals of class attributes which are unfavourable, inaccurate and distortive (Guskin, 1963). Indeed, for Redner (1980) and Parish, Dyck and Kappes (1979) negative attitudes and stereotypes are synonymous.

On the other hand, another tradition holds that labelling can be beneficial since it provides causal explanations for negative behaviour that deflect personal blame and hence make retardates more acceptable, (e.g. Gibbons, 1981; Guskin, 1963; Towne and Joiner, 1968)

The implication seems to be that these approaches are

mutually exclusive. A few writers like Guskin (1963); Mercer (1973) and Gottlieb (1974) suggest that labels might have positive *and* negative results, but even here, this seems between rather than within individuals.

There are those who are protected by the label "mentally retarded" and there are others for whom [it] is a burden and a stigma".

 Mercer (1973), p 172.

From Tajfel's point of view, stereotyping is a cognitive effect of categorisation, neither good nor bad, but a fact of life. Its outcome is determined, it will be remembered, by the relationship between the information conveyed by the label, characteristics of the labelled person and the dimension on which judgements are made. Whether the label is shown to be a burden or an asset, it follows, is a function of these, and not of the stereotyping process. In other words, Tajfel's approach provides a paradigm that is likely to resolve many apparent conflicts.

a. Information conveyed by the label

In the previous chapter, between subject variation in beliefs about retardates was demonstrated. Hence, the label, "mentally retarded" should have different effects for different subject groups. For example, Study¹ showed males were more negative towards retardates than females, and less clear cut, high SES subjects more negative than low. Coupled with Tajfel's approach, these differences help explain why Spierstein, Budoff and Bak (1980); Siperstein and Gottlieb

(1977) and Siperstein, Bak and Gottlieb (1977) found the label elicited a more negative shift in boys and similarly, why Gottlieb and Budoff (1973) and Gottlieb (1974) found evidence that low SES children showed less rejection of retarded peers as a function of the label, than high.

Age should also be mentioned, although it attracts little attention in the literature, perhaps because of its inconsistent effects. Nevertheless, the previous study yielded some evidence that younger subjects are less positive and less negative towards retardates, which fits nicely with Freeman and Algozzine's (1980) remark that young subjects are simply less affected by the label, (rather than less *negatively* affected). Perhaps, therefore, they are insufficiently practiced in judging classified series - a factor not generally considered in labelling studies where children are involved.

Whatever the reason, this has serious implications in suggesting that conclusions based on labelling studies with schoolchildren as subjects may not be meaningful.

In Study 1, psychologists had a more negative conception of retardates than other occupational groups, and according to other studies, professionals working with retardates seem particularly negative (Greenbaum and Wang, 1965; Carroll and Reppucci, 1978), which can explain the somewhat counter-intuitive finding that teachers of retarded children responded more negatively than regular class teachers and

non-professionals, to labelled compared with unlabelled targets, (Copeland and Weissbrod, 1976).

Similarly, differences in beliefs related to the interests of different social groups, might explain why Seitz and Geske (1976) found that the label affected a group of graduate trainees in mental retardation more than a matched group of mothers on competence measures and less on items relating to interpersonal liking.

Although personal contact with a retardate appeared to have the most potent influence on beliefs in the previous study, it does not seem to have been incorporated into any labelling experiments, but an interesting study by Gibbons and Gibbons (1980) deserves mention.

Fifty-nine retardates heard a story about a successful or unsuccessful target who lived at a private address or an institution (which, it was hoped, would be equivalent to a label). After listening, they rated him on a series of dependent measures, which included an adjective checklist (friendly, smart, hardworking, likeable, happy and kind) and a social distance scale.

Place of residence had no effect on the former, but elicited a significantly greater social distance score. Thus, results seemed simultaneously to reflect the finding that retardates do not have negative opinions about the mentally retarded, in general (Gan, Tymchuk and Nishihara, 1977), and Edgerton's (1967) famous finding that discharges from

institutions take great care to avoid each other in public places. More recently, Gibbons and Kassin (1980) found institutionalised retarded adolescents rated a target less smart and likely to succeed when labelled, but showed no labelling effect on personal adjectives.

Finally, Budoff and Siperstein (1982), on the other hand, found "mentally retarded" had a significant negative effect on both attitudes and social distance scores of a class of retarded school children who rated a target under labelled and unlabelled conditions.

It is difficult to evaluate these studies, because information regarding retardates' beliefs about retardates per se is lacking. However, it seems likely that these will resemble those of mainstream society, (this will be justified in chapter 5) and therefore, to be relatively positive on personal, but negative on ability related characteristics.

To summarise, there is some evidence that, as predicted by social categorisation theory, configurations of beliefs associated with perceivers' group membership influence labelling effects, and it seems likely that these might provide a means to understand apparent differences in the outcome of many labelling studies.

Information conveyed by the label might differ in salience as well as content. Tajfel and Wilkes, it will be remembered, found some evidence that experience of judging

labelled stimuli increased the perceptual effects of labelling. Thus, subjects who are used to evaluating retardates might show greater labelling effects. Although I have been unable to find any directly relevant studies, recent investigations into a different phenomenon, conceal data consistent with this view. In 1982, Reiss, Levitan and Szyszko established the existence of diagnostic overshadowing, or a reduced likelihood that debilitating phobias will be considered psychopathological when the patient is labelled mentally retarded. Reiss and Szyszko (1983) went on to find that overshadowing was not affected by the amount of experience subjects had in dealing with retardates. Subjects read a case history which was attributed to an individual with IQ 68 or 108, respectively, and to check on this manipulation, dependent variables included a 7 point perceived mental retardation scale, on which the keen eye notes, experienced subjects (psychologists at a state mental hospital) rated labelled and unlabelled targets 5.86 and 1.00 (minimum possible) respectively, whereas the relevant figures for inexperienced subjects (students in clinical psychology) were 5.64 and 1.85. In other words, experience was associated with an increased interclass difference, (although, of course, its significance was not analysed).

Finally, differently worded labels are likely to be associated with different configurations of beliefs, and hence, different labelling effects.

Hollinger and Jones (1970), and Foster and Ysseldyke (1976), for example, found "mentally retarded" elicited more negative attitudes than "slow learner" and "learning disabled", while Siperstein, Budoff and Bak (1980), found "mentally retarded" and the derisive American colloquialism "retard" had different meanings, the former denoting objective clinical problems and the latter eliciting negative emotional reactions. On this basis, they concluded that removal of the former label might encourage spontaneous idioms and therefore do more harm than good.

In a 2x2x2 between subject design, they studied the attitudes of 136 fifth and sixth graders towards a target (1) whose photograph appeared normal or mongoloid, (2) whom they heard spelling competently or incompetently and (3) who was labelled "mentally retarded" or "retard". Results yielded a significant main effect in the expected direction for competence and label and an appearance x label interaction which showed subjects did not differentiate between labels when appearance was subnormal, (a likely reason for which will be discussed below). The authors concluded that "retard" had more stigmatising power, and with "cautious optimism" that "mentally retarded" might be beneficial to normal appearing retardates by explaining away their incompetence. Read closely, this study grows confusing, because, for example, without an unlabelled control condition, there is no evidence that "mentally retarded" is beneficial except in comparison to "retard".

Second, the exact nature of beliefs associated with "retard" can only be guessed on this side of the Atlantic, but perhaps it is a term like "spastic", which ironically seems a taunt for normal people and a faux pas if applied to a real spastic. Thus, the idea that "mentally retarded" is beneficial might be erroneous, because the extremely negative responses to "retard" might not actually apply to retardates. Indeed, it would be interesting to look at the the beliefs associated with a range of different labels across cultures. Nevertheless, the important point for present purposes is clear: different labels underpin different labelling effects.

b. Stimulus characteristics

Characteristics of the labelled person form a second major source of influence, since the response to any stimulus, it will be remembered depends on the relationship between its attributes and the information conveyed by the label.

Translated for present purposes, this means that the effect of the mentally retarded label depends heavily on how the individual would have been perceived without it.

Guskin (1963) commented that too many or too few cues of subnormality weaken the impact of the label, which from the present point of view, is likely to be only half right: when an unlabelled individual is judged in terms that closely resemble the abstract ideal suggested by the label, as might occur when many cues to subnormality are present, the label itself is likely to have a minimal effect.

However, this is not a function of the number of cues per se, but of how useful the label is in conveying additional information. It follows that the less like a retardate the individual is perceived unlabelled, the more effect the label should have. Thus, in contradiction to Guskin, there can never be too few cues, provided, of course, the label is accepted as meaningful. Taken further, this argument also suggests the counter intuitive hypothesis that the label might *improve* ratings where an individual is judged extremely negatively, unlabelled, because whenever a judgement is below that associated with class membership, the label should improve it.

An attempt to discover the relative weights of physical attractiveness and the mentally retarded label on perceived subnormality, illustrates the first point. Aloia (1975) measured the attitudes of 105 student teachers to 5 "attractive" or 5 "unattractive" photographs on a scale of bipolar adjectives (clumsy/skilled; strange/ordinary; unintelligent/bright; helpless/capable and confident/timid) under one of three conditions (mentally retarded label, normal label or no label).

Results yielded a significant effect for type of photograph, but no labelling effect. In the present opinion, this is entirely unsurprising because "attractive" photographs had been chosen for their normal appearance, while "unattractive" ones had been picked from a group of profoundly retarded targets, for their "obvious deformity

and physical stigmata." Hence, it is clear that "unattractive" photographs would, in any case, be categorised retarded, rendering information conveyed in the label, superfluous.

In contrast, Foster and Keech (1977) illustrate the second point. Fifty teachers viewed a twelve minute video of a schoolboy - chosen for actual and apparent normality - engaging in various normal activities. Half were told he was normal and the other half, that he was retarded. Dependent measures were a 35 item personality questionnaire, which subjects completed as they thought the boy would, and a 23 item checklist on which his skill and personal adjustment was rated.

Results showed that judgements under the retarded label were significantly more negative on both measures, although there were *no* cues to subnormality present.

It might be argued that this example stretches the credibility of the present approach, since with no cues to subnormality at all, how could the label be accepted as meaningful? An important reason was suggested by Tajfel (1959; 1963; 1972; 1978, 1981) who argued that classification systems function in a way that preserves and reinforces values, which biases the kind of mistakes observers make. Hence, since there is a clear evaluative gradient from normal to subnormal, there is likely to be over-exclusion from the former and over-inclusion in the

latter, because errors in these directions do not contaminate the valued category, but purify and maintain it. This does not imply that the label will be accepted whatever the circumstances. Indeed, as commonsense would suggest, Freeman and Algozzine (1980), found its impact could be reduced by the addition of categorically inconsistent evidence. It *does* imply, however, that observers are likely to be more receptive to the label "subnormal" than "normal" whenever they *interpret* evidence.

This has wide implications for clinical diagnosis and educational placement, in suggesting it is much easier for the individual to enter rather than leave their aegis. It also hints that stigmata might be so noticeable because of consensual biases in perception, rather than objective distinctiveness, although of course, this hypothesis can never be tested while normality is valued above subnormality, since it is impossible to achieve the necessary objectivity.

Data consistent with this view may be gleaned from a closer look at Aloia's results, which show "mentally retarded" had more effect on normal targets than "normal" had on subnormals. (i.e. "unattractive" control score rises only .9 units from 68.2 to 69.3 under the "normal" label, whereas the "attractive" control score sinks 5.8 units from 86.8 to 81.0 under "mentally retarded.")

	LABEL CONDITION Mentally retarded	no label	normal	
PHOTOGRAPH Attractive	81.0	86.8	87.0	(perceived (subnormality (scores
Unattractive	66.6	68.2	69.3	

(As an aside, it is also apparent that the interclass difference between attractive and unattractive photographs has increased under meaningful labels relative to the unlabelled condition. (i.e. 86.8 - 68.2 to 87.0 - 66.6). This suggests that a labelling effect consonant with Tajfel's theory may well have occurred, although no main effect was found.

A related question concerns just how far perceived relevance of the label and hence categorisation effects extend. Redner (1980) and Goffman (1963), for example, argue that people closely associated with retardates may be "contaminated" and it is interesting to hypothesise that they too might be stereotyped. Redner (1980), however, found no evidence that this actually occurred. In a 2 x 2 design, his subjects rated a video of mothers discussing their children, half of whom were normal and half retarded - under "normal" or "retarded" labelling conditions. Only type of mother had a significant effect, which suggested that negative attitudes towards parents of retarded children are not a function of the label, but of differences in behaviour, although as Redner cautioned, volunteer mothers, conscious of being filmed, might not have yielded reliable experimental material, and it might be added, it is

difficult to believe that the content of their discussions did not reveal, as efficiently as a label might, that their children were retarded, which would mean that the label conveyed little useful information.

Unfortunately, Redner presents no data, so it was not possible to hunt for the a labelling effect defined by the present paradigm, but since he found a distinct stereotype of a mother whose child is handicapped, one may well have occurred.

This is a concrete example of the uncomfortable nature of the marriage between the present approach, to which measures that reflect distributions of judgements are most appropriate, and its application to the individual level studies and analyses that form the literature on labelling the mentally retarded. Necessity justifies the match, because, as far as I can determine, social categorisation theory has not yet been applied in this area, and therefore, established designs must provide the preliminary testing ground.

c. The focal dimension

Finally, the dimension along which judgements are made contributes to labelling effects. First, it must be relevant, that is, believed to correlate with the classification. Tajfel and Wilkes pointed out that cases like skin colour and race which correlate almost perfectly, are rare and that the effect of a label should vary across a series of dimensions according to their perceived relevance.

The evaluative nature of focal dimensions may be used to make more precise predictions about the effect of "mentally retarded". For example, the previous study showed retardates are associated with the positive pole of a few items relating to personal disposition. Therefore, on average, the label might be expected to improve ratings on such dimensions, and indeed, Seitz and Geske (1976) found a group of mothers rated the same retardates significantly happier and more appealing when labelled, while corresponding ratings of competence and social acceptability were negatively influenced.

Although conceptually different, such positive shifts are unlikely to be distinguishable from those resulting from causal attributions which are said to reduce dissonance, (e.g. Goodman et al (1972); Gottlieb and Davis (1973); Gottlieb (1975a), (except that the latter might be more likely in association with negative behaviour). Through either mechanism, however, the label can generate tolerance, and hence greater social acceptability for the retardate. Indeed, the aforementioned authors have used the loss of such privileges as an argument against mainstreaming.

The kind of tolerance at stake can be seen in a study by Farina, Thaw, Felner and Hurst (1976) who asked subjects in a "teaching experiment" to punish mistakes with electric shocks. Pupils in fact, were stooges labelled mentally retarded or normal, and in the former condition, duration and intensity of shocks were significantly less.

Interestingly, Farina et al were unable to detect any differences in expressed attitudes - which provides a happy counterbalance to the finding that positive expressed attitudes do not necessarily covary with accepting behaviour, (Gottlieb and Gottlieb, 1977).

The kind of attributions that might have underpinned these results are illustrated in an interesting study (Severance and Gasstrom, 1977) where subjects were asked to assess the relative influences of ability, effort, task difficulty and luck on two 10 year olds' success or failure in completing a ten-piece jigsaw puzzle. Half the subjects were told the targets were mentally retarded and half were not given a label.

Results yielded a significant label x outcome interaction on 3 variables: ability and task difficulty were considered more potent causes of failure for mentally retarded targets and effort a more important factor in success.

Hoffman and Weiner (1978) showed that children's effort on a second task was a function of the attribute they received regarding their performance on a first. If success and failure were attributed to ability, they tried more and less hard, respectively, whereas the outcome was reversed if their performance was attributed to effort or luck.

Clearly, these experiments together build a pathway whereby labels, through the attributions of others, might effect children's performance.

As Severance and Gasstrom continue, if the label protects retardates from blame when they fail, it also robs them of kudos when they succeed, hence the subsidiary finding that successful outcomes produced a significant increase in expectations of future success, which was greatly attenuated when the target was labelled. Gibbons, Sawin and Gibbons, (1979) found similar results with a slightly more complex paradigm. Thus, Guskin's (1963) "special dispensations" which relieve retardates of the responsibility for negative behaviour, seem extended into a stinging "patronization effect" (Gibbons, 1981), which holds them responsible for nothing at all and which, Gibbons adds differentiates them from people afflicted with other handicaps who seem to receive extra credit (augmentation) when they succeed.

Further evidence that special tolerances may become self-fulfilling is illustrated by Copeland and Weissbrod (1976) who examined the attitudes of "socialising agents" - 105 special class and 53 regular teachers together with 63 non-professional caretakers of institutionalised retardates. In a complicated design, the sex and label (normal/retarded) of a target child was varied with acceptable (dressing-up/driving a toy truck) and unacceptable (over-dependent/aggressive) sex-stereotyped play. Dependent measures included ratings of typicality, approval and willingness to nurture.

Although a significant main effect showed appropriate, desirable sex-typed behaviour was rated most typical, a

qualifying interaction showed that retarded children were rated typical when behaving undesirably. A further interaction with profession yielded the disturbing information that special class teachers accounted most for this finding.

This is entirely consistent with Hamilton and Gifford's (1976) "illusory correlation" phenomenon, or the tendency for aberrant behaviour to be perceived as typical of the group when it is displayed by a minority group member, but more important, it implies that teachers may be more inclined to tolerate undesirable behaviour in retarded than normal children and that this discrimination itself is likely to increase its prevalence and hence, its typicality. Indeed, since Gibbons, Gibbons and Kassin (1980) found subjects less inclined to blame and punish a teenage boy for vandalism when he was labelled retarded, this might have implications far beyond the classroom. Similarly, although mental retardation is the present focus of interest, special tolerances are likely with children bearing other labels. For example, Algozzine, Mercer and Counterline (1977) found emotionally disturbed behaviour was rated more acceptable and less disturbing when it was attributed to a child bearing the label, "emotionally disturbed" than when it was attributed to other children.

In summary, beliefs that retardates are well meaning or that their negative behaviour is caused by their retardation and cannot be helped, are likely to improve a variety of

judgements. However, the tolerance that is so generated, has a number of stings. Related to the recent work of Reiss et al (1982, 1983), it may overshadow the need for therapeutic care. Furthermore, it is still a perceptual distortion that discriminates between normal and retarded people, and worse, it may, through self-fulfilling prophecies, perpetuate the very behaviour it assumes cannot be helped. Thus, it goes without saying, the loss of special dispensations is not seen as an argument against integration.

Finally, Guskin (1963) has suggested that these special tolerances mean a different cognitive system is "switched on" when observers judge retardates. Labelling effects related to the constellation of beliefs associated with retardation, provide a mechanism whereby this might occur.

Study 1 revealed that positive beliefs (likely to generate tolerance) were in the minority and that the negative poles of most items are associated with retardates. Thus it is not surprising, as Budoff and Siperstein (1982) note, that while the research is equivocal overall, the bulk of studies demonstrate a negative effect as a function of the label, "mentally retarded". Study 1 suggested that beliefs relating to competence were the most negative, (and simultaneously, it might be argued, the most relevant to the normal/retarded dichotomy). Hence, it is not surprising that Gottlieb and Gottlieb (1977) found that "smart" and "bright" accounted for most variation between labelled and

unlabelled targets.

On the other hand Yoshida and Meyers (1975), found that the label "educable mental retardate" failed to have a significant effect on performance expectancies "in the face of first hand evidence". Eighty teachers viewed a video of a black 13 year old confederate taking four concept formation tasks, ostensibly separated by 2 week intervals. Half were told he was in a regular, and half that he was in a special class. The predicted number of correct responses in each following trial was the dependent measure.

Only one significant effect was found, namely that subjects predicted an improvement over trials, which in the present view, was entirely unsurprising, since the videos were not presented in random order, but depicted 2, 4, 6 then 8 out of 10 responses correct, so subjects most likely learned to raise predictions over successive trials, whatever the labels.

Yoshida and Meyers (1975) concluded that first hand evidence was more important than the label and indeed, a number of other writers have argued that actual behaviour is more influential than labels in determining judgements. (e.g. Freeman and Algozzine, 1980). From the present point of view, this does not seem warranted, not only because of what seem to be artefacts in experimental procedure, but more important, because the assumption that evidence and labels have independent, additive and reciprocal effects, seems

false. In the present paradigm, evidence and labels transact, the former influencing the content of the latter and, perhaps more important in experiments, the latter influencing the perception of the former. With the characteristics of the labelled person and expectations associated with the label providing third and fourth dimensions of influence, it is clear that the question whether behaviour or labels are more important, is not only unanswered but also unanswerable.

Gottlieb (1974), however, developed a 2 x 2 paradigm in which the relative weights of various behaviours and the mentally retarded label could be examined, the critical condition being the cell in which normal behaviour is labelled retarded.

In the first of an ongoing series, Gottlieb (1974) wondered if "mentally retarded" or academic incompetence was more influential "in the rejection process".

Forty-eight 4th grade middle-class children viewed a video of a 12 year old spelling competently or incompetently. Within each condition, half were told he was in the fifth grade, and half that he was in a special class. Dependent measures were an adjective checklist (range 10 -50) and a six point social distance scale. Analyses yielded main effects for competence on both. The label, on the other hand, had no effect and there were no interactions.

A replication on 40 4th grade low SES children - mostly

second generation Portugese - yielded no significant effects atall.

Gottlieb concluded that contrary to the findings of Baldwin (1958) and Johnson (1950) that retarded children are rejected for their anti-social behaviour, not their academic incompetence, the latter, afterall, has had a significant negative effect. Already this seems confusing, first, because Gottlieb ignores the second half of his own study, and second, because academic competence is unlikely to be equivalent in Gottlieb's label x competence paradigm and the earlier competence x aggression studies.

He further concludes that labels do not lead to rejecting attitudes, at least among 4th graders, who are far more influenced by academic competence.

Much can be gleaned from a closer look at the means for each condition.

	Adjective Scale	Social distance Scale
Middle SES		
retarded competent	38.50	4.50
nonretarded competent	39.67	4.75
retarded incompetent	33.25	3.58
nonretarded incompetent	35.42	4.42
Low SES		
retarded competent	37.80	4.70
nonretarded competent	38.40	5.10
retarded incompetent	35.00	4.70
nonretarded incompetent	38.00	4.60

For middle SES subjects, means for the retarded competent target are higher than for both incompetent conditions, and show an additive label x competence relationship. For the low SES group, on the other hand, means for the nonretarded

incompetent target are higher than both retarded conditions on the adjective checklist, and competence has no effect in the retarded condition on the social distance scales. Although ANOVA may not have been significant, within Gottlieb's paradigm, these suggest the label might be more weighty for low SES subjects, so it is surprising he does not discuss them at all.

Unfortunately, it simply is not possible to apply the present approach to these studies in any detail, because being derived from a different paradigm, they do not give the relevant information. Nevertheless, it is reasonable to suppose that the classification regular/special class can be superimposed on the stimulus characteristic, academic performance. Since the focal dimensions, (adjective checklist and social distance measures) according to Gottlieb, reliably reflect this characteristic, perceived interclass difference in attitudes and social distance should increase in the consonant compared with inconsonant cells. Thus, targets are regarded not as individuals, but as group representatives, and the focus is on the differences between them, rather than absolute scores. For middle class subjects, the difference between competent and incompetent conditions is greater when labels are consistent, i.e. (38.50 - 35.42) vs (39.67 - 33.25) and (4.50 - 4.42) vs (4.750 - 3.58). More interesting, results for low SES subjects follow the same pattern: (37.8 - 38.0) vs (38.4 - 35.0) and 4.70 - 4.60) vs (5.10 - 4.70).

Within Tajfel's approach, the inconsistencies between the studies have disappeared and a labelling effect (of unknown significance) appears, although none could be detected in Gottlieb's analysis. In other words, doubts and conflicts regarding the label seem likely to arise because, in the present opinion, Gottlieb's paradigm directs the search away from the most relevant measures. Indeed, the array of studies published by him and his associates over the last decade, which focus on different aspects without an obvious unifying directive seem testimony to its inefficiency.

In a second study, Gottlieb (1975) used the paradigm to examine the relative weights of the label and behavioural aggressiveness, since a number of writers, including MacMillian, Jones and Aloia (1974) had recently argued that retarded children might be rejected because of their behaviour, not their labels, and Goodman, Gottlieb and Harrison (1972) had found delabelled, reintegrated retarded children were rejected more than their labelled peers.

Forty-eight middle class 10 year olds watched a video of a 12 year old actor aggressively punching or quietly modelling some clay. Within each condition, half were told he was in the fifth grade and half that he was in a special class. Dependent measures were adjective rating and social distance scales. Anti-social behaviour, ANOVA showed, had a significant negative effect on both scales, and the label on the adjective scale only, although it approached significance on the social distance measure. The

interaction was non-significant.

Gottlieb was unable to explain why the label should have an effect in this, but not his 1974 study. Indeed, it is hard not to notice that the relative outcomes seem to contradict his suggestion that anti-social behaviour rather than the label might account for the rejection of retarded children, in which case, labelling effects should have been less marked in the second. Furthermore, there is no sign of a "special dispensation". Gottlieb simply concludes that the effect of the label is not consistent. Interestingly, however, examination of mean results indicates that differences between aggressive and nonaggressive targets increase from .08 and .58 units on adjective and social distance scales to 8.65 and 1.58 units, respectively, under consistent compared with inconsistent labels.

In other words, lack of a consistent labelling effect might be due to the paradigm.

Budoff and Siperstein (1978) went on to replicate Gottlieb's first experiment on a larger group of 96 white 6th grade low SES children, using more sensitive measures. However, they substituted audiotapes and photographs for the videos, used a new adjective checklist and activity preference scale and a rather different subject sample, so comparisons between the studies might well be invalid.

In this case, both competence and the mentally retarded label elicited significant *positive* effects on the adjective

checklist, qualified by a significant interaction indicating that subjects were positive towards the competent child regardless of label but more positive towards the incompetent child when he was labelled. Results on the activity preference scale followed a similar pattern. Budoff and Siperstein go on to conclude that contrary to Gottlieb's (1974) subjects, their low SES sample "parallel" middle-class children in preferring competent to incompetent targets, although this conclusion seems to omit several definitely divergent findings, such as the significant positive main and interactive labelling effects compared with the insignificant negative additive effect that was shown by Gottlieb's middle-class group. In other words, instead of clarifying Gottlieb's (1974) study, Budoff and Siperstein (1978) seem to cloud the issue further.

Siperstein and Gottlieb (1977) seem to exemplify further this apparent lack of direction. The 2 x 2 paradigm might not have yielded a significant negative labelling effect, they argued, because subjects might dismiss the label as incorrect in the dissonant condition. For this reason, the label was "cast" in terms of the physical stigmata of Down's syndrome, which they felt, subjects would be less able to ignore.

Seventy-two school children heard what they thought was a normal or a mongol boy spelling competently or incompetently, then were asked to complete an adjective checklist and a social distance scale. Results yielded a

significant positive effect for competence and normal appearance on the former, but neither had an effect on the latter. The authors duly concluded that children's attitudes are affected by both academic competence and physical stigmata.

No data were presented, so it is possible only to question the underlying logic. Gottlieb (1974) made it clear that the very purpose of the paradigm is to see whether the label influences judgements in the inconsistent condition. Indeed, Budoff and Siperstein (1978) make this absolutely explicit:

The critical cell is the cognitively dissonant one: the labelled competent condition. The critical question is, how do children respond to a child called mentally retarded who performs competently?

(p. 475)

Within the framework of their paradigm, it follows that the apparent dismissal of the label in the competent condition leads to the conclusion that behaviour determines attitudes. Clearly, therefore, it does not make sense to introduce a further study at this point.

Finally, yet another result was obtained by Budoff and Siperstein (1982), who asked sixty-eight retarded children to listen to the tapes of competent and incompetent spelling. As usual, within each condition half were told the actor was mentally retarded and half that he was normal, and on this occasion, both incompetence and (perhaps ironically) the mentally retarded label had significant

negative effects on both measures. In Tajfellian terms, however, the differences between competent and incompetent targets on adjective rating and social distance scales of 2.33 and .36 units, increase to 11.30 and 3.43 under consistent compared with inconsistent labels, respectively. In other words, results might after all be in line with the previous studies.

In summary, although it is agreed that different behaviours are likely to be associated with different labelling effects, from the present point of view, this is because they vary in relevance and play different roles in the constellation of beliefs associated with the label.

Attempting to rank various behaviours in terms of their weights relative to the label, rests on the assumption that they have independent effects, which not only seems unlikely, but which also leads to a paradigm that seems to lack unifying and directive power.

To end this journey on a note of concord, the position of MacMillan, Jones and Aloia (1974), "that the evidence does not support the conclusion that there is a detrimental labelling effect", is accepted, *but*, it is argued, meaningful and consistent labelling effects might be nevertheless observed if a Tajfellian paradigm were adopted.

4. STUDY 2

THE EFFECT OF LABELLING FOUR NORMAL AND FOUR SUBNORMAL CHILDREN

4.1 INTRODUCTION

What follows is an attempt to test empirically some of the foregoing suggestions, in an examination of the effect of the mentally retarded label from a Tajfellian perspective. This means that instead of individuals, a distribution of targets will be employed, and to complete the analogy with Tajfel and Wilkes' (1963) paradigm, they will be normal as well as subnormal.

1. The central hypothesis is that perceived intraclass similarity and interclass dissimilarity of normal and subnormal children will be enhanced when they are consistently labelled, compared to a control series when they are unlabelled.

1b. Labelling effects are expected to be most marked on dimensions that are most relevant - that is, those correlating most closely with the classification, and

1c. for dimensions on which beliefs about retardates are negative (as suggested by study 1), the increase in interclass difference is expected to result from a negative shift in the perceived subnormal group boundary, and it will be assumed, a reciprocal positive shift in that of the normal group. (Although beliefs associated with normal children were not examined in

the previous study, its measure was used as the basis of a questionnaire (Appendix 3.0) given as part of a follow-up of a cohort of over 14,000 children (CHES, 1983) to a National, representative sample of special class teachers. Since attitudes to normal children were, in fact positive, there is some basis on which to make such an assumption.)

ld. Labelling effects on dimensions on which beliefs about retardates are positive, are not expected because as Guskin (1963) showed, retardates were not widely differentiated from normals on such items, which are therefore unlikely to correlate with the classification.

2. The second major hypothesis is that the impact of the labels on different Targets will vary according to their rank in the unlabelled Target distribution. The greatest effect is expected to be on the subnormal Target that is perceived most unlike the ideal retardate, or in practical terms, the subnormal Target receiving the most positive evaluation unlabelled, is likely to suffer the most negative labelling effect. On the other hand, since Study 1 revealed no maximally negative beliefs, responses towards the subnormal Target receiving the most negative evaluations might be "diluted". Little effect is expected for subnormal Targets who, in any case, receive judgements

characteristic of retardates. The mirror image of these predictions is expected to apply to the normal group.

3. In an attempt to keep the work load manageable, only the most important between subject difference, personal acquaintance, will be incorporated as an independent variable. Since acquainted subjects are more experienced with retardates, they are expected to show more marked labelling effects. On the other hand, study 1 showed their attitudes were positive compared with those of unacquainted subjects. Thus enhanced intergroup differences are unlikely to involve such a marked negative shift in the subnormal group boundary. For this reason, inter and intra- group processes will be kept conceptually and analytically distinct.

4.2 METHOD

Subjects

a. The Pilot

A dozen friends and colleagues including 2 psychologists, 2 housewives, an actor, 2 postgraduate psychology students, an upholsterer, 2 cleaners, an antiques dealer and a waitress. Numbers of males and females were equal and ages ranged from 21 to 65.

b. The Experiment

Seventy undergraduates nine weeks into a first year psychology course, approximately two-thirds of whom majored in other subjects, mainly zoology, botony, chemistry and mathematics. The number of males and females was approximately equal.

Apparatus

a. The Pilot

15 slides of normal and subnormal children attending an assessment centre and 5 "family album" slides of normal children.¹

b. The Experiment

Selected slides of 8 normal and 4 subnormal children which are given in Appendix 3.1 and described more fully in the discussion section. A semantic differential of 42 items associated with the concept "retardates", which was adapted from the previous measure by adding "for age" where

¹ Thanks are due to Polly Perkin and Dr. Werner Schutt at The Tyndall Park Assessment Centre, Tyndall Park Road, Bristol and John Barrett at Bristol University's Department of Psychology.

appropriate (i.e. to items like "mature"), omitting references irrelevant to children, (like those relating to employment); reducing direct references to appearance and dropping items which seemed redundant. (See Appendix 3.2).

Procedure

a. The Pilot

Subjects were simply shown all the slides in random order and asked to describe whether or not they thought the children were normal. (see discussion for more detail.)

b. The Experiment

Subjects were instructed about the semantic differential as part of a lecture, then they were informed that they were to take part in a study of visual cues in person perception, in which they would see slides of eight children, whom they were to rate quickly and independently on provided differentials.

Next, they were randomly assigned to one of four conditions.

Condition 1 (n = 18, 8 of whom were personally acquainted with a retardate). Slides 1 to 4 (normal Targets) and 5 to 8 (subnormal Targets) were used, and no labels were employed.

Condition 2, (n = 18, 7 of whom were personally acquainted). As in condition 1, slides 1 to 8 were used, but they were correctly labelled "normal" or "subnormal".

Condition 3, (n = 16). Slides 1 to 4 and 9 to 12, all of normal children were used, and no labels were employed.

Condition 4 (n = 18). As in condition 3, slides 1 to 4 and 9 to 12 were used, but half were labelled "normal" and half "subnormal".

Conditions 1 and 2, which form the main experiment, and

which are an analogue of Tajfel and Wilkes' (1963) paradigm, were run simultaneously by two assistants in separate rooms. Two days later, conditions 3 and 4, the subsidiary experiment were similarly run as an extra control, on the advice of Tajfel himself. Within each condition, the order of slides was randomised, and where appropriate, assistants introduced Targets as being normal or subnormal, in the latter case, going on to say, "in fact, he/she is mentally retarded".

On completing the last semantic differential, subjects indicated whether they were personally acquainted with any retardate, (although one of the assistants forgot to collect this data in the subsidiary experiment) then handed in their booklets.

Finally, they were shown all twelve slides in succession, and rated them for normality on an imaginary scale ranging from 0 to 200 with a central "averagely normal" score of 100.

4.3 TREATMENT OF DATA AND RESULTS

First hypothesis

Mean semantic differential scores for each Target in the main experiment are given in Table 3.1, but are displayed more accessibly in Figure 3.1 which appears at the relevant point in the text (p. 190) and which details variable names.

Two measures were devised to analyse these data:

a) The intergroup difference was defined as the difference between class boundaries - i.e. the lowest "normal" score minus the highest "subnormal" score for each subject. One factor completely randomised ANOVA, (BMDP7D), was then run on each variable to see if intergroup differences were greater in the labelled compared to the unlabelled condition. Mean intergroup differences and significances are given in Table 3.1a, at the relevant point (p. 193).

b) Similarly, standard deviations for normal and subnormal Targets gave measures of intragroup similarity for each subject. Two factor ANOVA, (BMDP2V), with a repeated measure on the first factor (normal/subnormal x label/no label) tested whether perceived intragroup similarity was greater in the labelled compared with the unlabelled condition. Mean intragroup similarities and significances are given in Table 3.1b (p. 197).

Samples and justifications of analyses are given in Appendix 3.3.

TABLE 3.1

Mean semantic differential scores with and without labels

	NORMAL TARGETS				SUBNORMAL TARGETS											
	Target 1 unla'lab	Target 2 unla'lab	Target 3 unla'lab	Target 4 unla'lab	Target 5 unla'lab	Target 6 unla'lab	Target 7 unla'lab	Target 8 unla'lab								
1	2.72	2.39	3.94*2.94	4.22*3.17	5.06	4.33	5.56	4.89	6.06	6.11	4.39	5.06	5.39*6.33			
2	2.22	2.11	2.72	2.39	2.78	2.61	4.67*3.44	4.83	3.83	4.61	3.94	3.94	4.22	4.83	4.33	
3	2.28	2.22	2.89	2.44	3.72*2.67	5.11*3.44	4.56	4.33	3.72*3.44	4.67	4.56	4.44	4.17			
4	2.50	2.11	3.00	2.22	3.22	2.89	3.61	3.33	3.50	3.11	2.89	2.50	3.28	3.56	3.44	2.78
5	1.89	1.94	2.94*2.11	2.50	1.94	4.72*3.17	4.89	4.17	4.78	4.06	4.17	3.83	4.50	4.83		
6	2.39	2.33	3.39	2.89	3.78*2.39	5.33*4.06	5.44	5.72	5.89	5.94	4.33	5.11	4.83	5.39		
7	2.28	2.06	3.11	2.61	2.67	2.56	4.67*3.17	5.50	5.22	5.67	5.44	3.83	3.94	5.22	5.67	
8	2.61	2.44	2.89	2.33	3.11	2.94	3.94	3.39	4.72	4.33	4.00	4.44	4.28	4.72	4.78	4.50
9	2.33	2.61	3.06	2.44	3.67	2.94	4.83*3.78	5.56	5.22	5.33	5.61	4.22	4.67	5.39	5.56	
10	1.39	1.44	2.11	1.61	2.00	1.33	3.94*2.11	4.28	4.22	4.44	4.56	2.83	3.83	4.78	4.28	
11	1.83	1.94	2.50	2.22	3.17*2.11	3.61	3.39	4.28	4.06	3.56*4.28	3.56*4.17	3.78	4.11			
12	2.39	2.67	3.73*2.67	3.33	3.17	4.50*3.39	4.61	4.33	4.89	4.72	3.89	4.67	4.56	4.78		
13	3.28	3.22	3.39	3.44	4.17	3.56	3.94	4.22	4.72	4.44	4.39	4.78	3.94	4.61	4.61	5.28
14	2.61	2.78	4.44*3.39	3.78	3.11	4.94*3.94	6.00	5.39	5.67	5.67	4.44	4.89	5.28	5.39		
15	2.28	3.06	3.22*2.39	3.28	2.78	5.22*3.50	5.61	5.11	5.61	5.94	3.78	4.39	4.83	5.72		
16	4.94	5.22	4.94	5.28	5.72	4.83	3.56*4.50	4.83	5.00	4.44*5.44	3.89	4.11	4.89	5.22		
17	2.72	3.22	3.33	2.78	3.78*2.89	4.78*3.67	5.39	4.89	4.83	4.67	4.44	4.83	4.56	5.33		
18	2.50	2.89	3.06	2.61	3.89*2.17	3.61	3.33	4.39	4.22	3.89	4.33	3.11	3.67	4.22	4.39	
19	2.67	2.78	3.56*2.78	3.17	2.94	4.89*3.89	5.56	5.00	5.28	5.06	4.06	4.89*5.22	5.56			
20	2.00	2.17	2.72	2.06	2.78	2.72	4.28	3.61	3.72	3.50	3.44	3.28	3.72	4.33	4.06	3.39
21	2.39	2.44	3.28	2.61	3.89	2.94	4.94*4.11	5.39*3.94	4.94*4.33	4.39	4.28	4.61	4.61			
22	2.56	3.44	3.00	2.78	3.61*2.56	3.67	3.33	4.72	4.00	4.61	4.44	4.00	3.28	4.06	4.22	
23	1.89	2.22	2.11	1.83	2.89	2.22	3.22	2.83	3.17	2.89	3.06	3.67	2.72	3.39	3.33	3.67
24	2.11	2.33	3.33*2.56	3.33*2.78	4.61*3.44	4.94	4.56	4.56	5.00	3.67	4.17	4.56	4.67			
25	2.22	2.44	3.44*2.28	3.39	2.67	5.00*3.61	5.94	5.33	5.67	5.89	3.50*4.50	5.39	5.56			
26	4.39	5.06	5.11	5.33	5.11	4.06	3.28	4.22	4.56	5.22	4.39	5.39	3.72	4.28	4.78	5.44
27	2.94	3.00	3.78*2.94	2.83	3.28	4.56*3.78	4.33	4.06	4.17	4.28	4.22	4.33	4.33	4.17		
28	2.61	2.89	3.61	3.06	3.61	2.89	4.67*3.61	5.56	5.22	4.89	5.50	3.94*4.83	5.17	5.11		
29	2.61	2.78	3.61	3.00	3.28	2.50	3.94	3.33	5.72	4.94	4.33	4.94	3.50	4.39	4.61	4.94
30	3.22	3.83	3.33	2.89	4.67	3.78	3.17	3.72	3.33	3.94	3.44	3.94	3.22	3.61	3.61	4.06
31	3.89	4.22	4.28	4.11	4.44*3.50	4.67	3.94	5.67	5.44	5.39	5.56	4.28	4.50	5.44	5.44	
32	2.06	1.94	2.50	2.06	3.11	2.44	3.50	2.89	4.28	3.50	3.06	3.67	3.78	4.06	3.72	4.56
33	3.33	4.11	3.72	3.50	4.56*3.06	4.44	4.00	5.28	5.28	5.28	5.28	4.61	4.22	4.67	5.50	
34	2.22	2.78	3.56	3.11	3.33	2.67	4.61*3.56	5.94	5.56	5.56	6.00	4.22	4.94	5.17	5.78	
35	1.61	2.06	2.39	2.00	2.94	2.22	5.17*3.72	5.78*4.56	5.00	5.33	3.22	3.22	5.28	5.17		
36	2.78	1.94	3.28	2.78	2.72	2.83	3.94	3.28	4.33*3.28	3.67	2.89	4.00	4.06	3.50	2.83	
37	2.50	2.72	3.56*2.56	4.56*2.83	4.56*3.11	5.22	4.83	5.11	5.33	3.83	4.44	4.89	5.39			
38	2.00*2.67	2.94	2.33	3.89*2.83	3.67	3.22	4.50	3.78	3.67	3.61	3.28	3.78	4.28	3.94		
39	2.28	2.67	3.28	3.06	4.11*3.17	4.44*3.50	5.00*3.94	4.61	3.78	3.94	3.94	4.56	3.78			
40	1.78	2.11	2.06	1.83	2.44	2.06	4.61*2.28	5.78	5.39	5.22	5.83	3.28*4.83	4.83	5.50		
41	3.06	3.00	4.06*3.06	3.94*2.83	4.72*3.67	4.72	4.72	4.28	4.17	3.72	4.06*4.61	4.28				
42	1.89	2.17	2.89*2.06	3.72*2.17	3.50*2.50	4.11	3.11	3.78	3.17	3.44	2.78	3.67	3.11			

The equivalent data for the subsidiary experiment are given in Table 3.2 and Figure 3.2 and Tables 3.2a and b. Since these are not central to the main hypotheses, however, they are grouped together at the end of this section.

Mean perceived normality ratings for Targets 1 to 8 were calculated using data from subjects in unlabelled conditions only, with the following results:-

Table 3.1c
Mean perceived normality ratings

Target	Rating	Rank
1	116.3	1
2	96.3	2
3	95.8	3
4	72.5	6
5	58.8	8
6	64.6	7
7	95.0	4
8	77.9	5

Second Hypothesis

Separate one factor analyses of variance were computed for each Target (using BMDP7D). An asterisk on Table 3.1 indicates where labelled and unlabelled conditions differed at the 5% level or better, and the overall trend, in each case, was assessed using a sign test.

For Target 1, "normal" had one significant negative effect, and overall, it produced negative shifts on 31/42 variables, $p = .002$.

For Targets 2 and 3, "normal" had 12 and 14 significant positive effects and overall, elicited positive shifts on 39 and 40/42 variables, $p < .0001$, respectively.

For Target 4 "normal" produced 24 significant positive and 1 negative effect, and positive shifts on 38/42 variables overall, $p < .0001$.

Similarly, for Target 5, "mentally retarded" had 4 significant positive effects and occasioned positive shifts on 36/40 variables overall (with two ties), $p < .0001$.

For Target 6, "mentally retarded" had 2 significant negative effects and produced negative shifts on 24/40 variables, $p = .13$, NS.

For Target 7, "mentally retarded" had 3 significant negative effects. Overall, there were negative shifts on 34/40 items, $p < .0001$.

Finally, for Target 8, one variable distinguished significantly between conditions - in the negative direction, and overall, there were negative shifts on 26/40 items, $p = .04$.

Third Hypothesis

Table 33 gives mean scores for Targets 1 to 8 in labelled and unlabelled conditions separately for subjects with and without personal experience of retardates.

TABLE 3.3

Semantic differential scores with and without labels

acquainted subjects

	NORMAL TARGETS								SUBNORMAL TARGETS							
	Target 1	Target 2	Target 3	Target 4	Target 5	Target 6	Target 7	Target 8	Target 5	Target 6	Target 7	Target 8	Target 5	Target 6	Target 7	Target 8
	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab	unla'lab
1	2.50	3.00	3.25	3.14	3.75	3.43	5.13	4.29	6.25	5.00	6.38	5.86	4.13	5.00	5.25	6.14
2	2.13	2.57	2.88	2.71	2.63	2.57	4.75	3.71	5.50	3.71	4.38	4.14	4.00	3.71	4.63	4.00
3	1.75	2.57	3.38	3.14	3.50	3.14	5.25	3.71	5.13	3.57	4.63	3.71	4.38	4.29	4.13	3.86
4	2.13	2.43	2.88	2.86	3.13	3.14	3.50	3.86	3.75	2.14	3.00	2.86	3.25	3.14	3.50	2.14
5	2.00	2.29	2.50	2.43	2.50	2.57	4.88	3.14	5.25	4.14	5.13	4.29	3.63	4.43	4.75	4.57
6	2.00	2.71	3.25	3.43	3.50	2.86	5.50	3.86	5.63	5.57	5.88	5.71	3.75	5.14	4.13	5.00
7	2.63	2.14	3.63	2.71	3.00	3.00	4.75	3.71	5.75	4.71	5.88	5.57	3.63	4.00	5.25	5.29
8	2.75	2.71	3.13	2.71	2.75	3.43	4.00	3.43	4.63	3.57	4.00	4.57	3.75	4.86	4.75	4.43
9	2.50	3.00	3.13	2.86	3.50	3.43	4.38	3.43	5.75	4.86	5.00	5.71	4.13	4.86	5.25	4.86
10	1.63	1.86	2.13	2.00	1.63	1.71	3.75	2.57	4.38	3.86	5.00	3.71	2.63	4.00	4.50	3.86
11	1.75	2.14	2.63	2.29	3.00	2.71	3.75	3.29	4.75	4.00	3.88	4.43	3.75	4.29	3.88	4.29
12	2.38	2.71	3.88	2.71	3.63	3.29	4.63	3.57	4.38	3.86	4.75	4.29	3.88	5.00	4.25	4.57
13	3.25	3.43	3.63	3.43	4.50	3.57	4.00	4.00	4.25	4.43	4.63	4.86	3.63	4.86	4.25	5.57
14	2.63	3.14	4.50	3.71	3.88	3.43	5.00	3.71	6.00	5.14	5.75	4.86	3.75	4.71	5.38	4.43
15	2.13	3.14	3.00	2.86	3.00	3.29	4.88	3.14	5.88	4.71	5.75	5.71	3.75	4.43	5.00	5.29
16	4.75	5.71	5.50	5.00	6.00	5.57	4.00	4.29	5.13	4.71	4.00	5.14	3.63	4.57	4.38	5.00
17	3.25	3.29	3.75	3.00	3.75	2.71	4.63	3.57	5.25	4.57	5.00	5.00	4.13	4.86	4.75	5.00
18	2.63	3.14	3.00	3.14	3.88	2.71	4.00	3.29	4.13	4.14	3.63	4.57	2.88	4.00	4.13	4.86
19	2.88	3.00	3.38	3.14	3.00	2.86	4.63	3.71	5.13	4.57	5.25	4.86	4.00	5.29	5.75	5.00
20	2.38	2.57	2.63	2.43	2.50	3.00	4.63	3.57	4.13	3.29	3.50	3.43	3.88	3.86	3.88	3.14
21	2.88	3.14	3.38	3.71	4.00	3.14	5.00	4.43	5.25	4.14	4.88	4.14	3.75	4.14	4.63	4.43
22	2.63	3.43	3.38	3.14	3.88	3.14	4.38	3.00	5.00	3.71	4.75	3.86	3.38	3.14	4.13	4.14
23	1.75	2.14	1.88	1.86	2.63	2.29	3.13	3.14	2.50	3.14	2.88	3.29	2.75	3.43	3.00	3.57
24	2.75	2.57	3.50	2.86	3.25	2.86	5.13	3.71	5.13	4.43	4.88	4.57	3.50	4.14	4.88	4.29
25	2.13	3.14	3.50	3.00	3.38	3.29	5.63	3.71	6.13	4.71	5.75	5.29	3.38	4.43	5.63	4.86
26	4.00	4.86	5.75	5.43	5.88	4.43	3.63	3.86	4.25	5.14	3.88	5.00	3.00	4.71	4.88	5.29
27	2.63	3.00	3.25	2.86	2.75	3.29	4.50	3.57	4.88	3.71	4.50	4.14	3.88	4.14	4.50	4.14
28	2.63	3.14	3.75	3.57	3.75	3.29	4.63	3.86	5.50	4.57	4.88	4.86	3.50	4.71	5.38	4.57
29	2.63	3.29	4.00	3.57	3.13	2.71	4.13	3.29	5.75	4.71	4.13	4.71	3.25	4.57	4.50	4.71
30	3.25	4.14	3.88	3.43	4.38	3.86	3.63	4.14	3.50	3.57	3.25	4.14	3.00	3.57	3.75	4.57
31	4.38	4.14	4.38	4.57	4.50	4.29	4.63	3.71	5.63	5.57	5.75	5.43	4.13	4.71	5.25	5.43
32	2.50	2.14	3.00	2.57	3.00	2.86	4.13	2.86	3.75	3.00	3.13	3.43	3.63	3.57	3.38	4.43
33	3.50	4.29	3.88	3.57	4.88	3.14	4.50	3.57	5.25	5.14	5.25	4.86	4.38	3.86	4.50	5.43
34	2.25	3.14	3.75	3.57	3.50	3.29	4.88	3.57	5.75	5.29	6.00	5.86	3.88	4.71	5.13	5.14
35	1.75	2.00	2.00	2.14	2.75	2.57	5.63	4.00	5.75	5.00	5.00	5.29	2.63	3.29	5.00	4.86
36	1.88	2.29	3.38	3.43	2.13	2.71	3.88	3.29	4.50	3.29	3.25	3.29	3.38	3.57	3.50	2.57
37	3.25	2.86	4.00	2.86	4.25	3.14	4.75	3.29	5.13	4.57	5.25	5.14	3.50	4.43	5.00	5.29
38	2.13	3.14	3.38	3.29	3.50	3.29	4.38	3.43	4.25	3.71	4.00	3.71	3.13	3.86	4.50	3.86
39	2.75	3.00	3.63	3.29	3.75	3.29	4.63	3.86	4.63	3.86	4.13	4.14	3.50	3.86	4.75	3.71
40	1.50	2.71	2.25	2.29	2.38	2.00	5.00	2.71	5.63	5.14	5.50	5.43	2.88	4.86	4.88	4.57
41	3.38	3.29	4.50	3.29	3.63	3.14	4.63	3.29	4.63	4.71	4.63	4.43	3.75	4.00	4.88	4.29
42	2.63	2.71	3.38	2.86	3.25	2.57	3.63	3.29	3.88	3.43	3.75	3.43	3.50	3.00	4.00	3.29

TABLE 3.3 (continued): unacquainted subjects

	NORMAL TARGETS				SUBNORMAL TARGETS											
	Target 1 unla'lab	Target 2 unla'lab	Target 3 unla'lab	Target 4 unla'lab	Target 5 unla'lab	Target 6 unla'lab	Target 7 unla'lab	Target 8 unlab'lab	Target 9 unla'lab	Target 10 unla'lab	Target 11 unla'lab	Target 12 unla'lab	Target 13 unla'lab	Target 14 unlab'lab		
1	2.90	2.00	4.50	2.82	4.60	3.00	5.00	4.36	5.00	4.82	5.80	6.27	4.60	5.09	5.50	6.45
2	2.30	1.82	2.60	2.18	2.90	2.64	4.60	3.27	4.30	3.91	4.80	3.82	3.90	4.55	5.00	4.55
3	2.70	2.00	2.50	2.00	3.90	2.36	5.00	3.27	4.10	4.82	3.00	3.27	4.90	4.73	4.70	4.36
4	2.80	1.91	3.10	1.82	3.30	2.73	3.70	3.00	3.30	3.73	2.80	2.27	3.30	3.82	3.40	3.18
5	1.80	1.73	3.30	1.91	2.50	1.55	4.60	3.18	4.60	4.18	4.50	3.91	4.60	3.45	4.30	5.00
6	2.70	2.09	3.50	2.55	4.00	2.09	5.20	4.18	5.30	5.82	5.90	6.09	4.80	5.09	5.40	5.64
7	2.00	2.00	2.70	2.55	2.40	2.27	4.60	2.82	5.30	5.55	5.50	5.36	4.00	3.91	5.20	5.91
8	2.50	2.27	2.70	2.09	3.40	2.64	3.90	3.36	4.80	4.82	4.00	4.36	4.70	4.64	4.80	4.55
9	2.20	2.36	3.00	2.18	3.80	2.64	5.20	4.00	5.40	5.45	5.60	5.55	4.30	4.55	5.50	6.00
10	1.20	1.18	2.10	1.36	2.30	1.09	4.10	1.82	4.20	4.45	4.00	5.09	3.00	3.73	5.00	4.55
11	1.90	1.82	2.40	2.18	3.30	1.73	3.50	3.45	3.90	4.09	3.30	4.18	3.40	4.09	3.70	4.00
12	2.40	2.64	3.60	2.64	3.10	3.09	4.40	3.27	4.80	4.64	5.00	5.00	3.90	4.45	4.80	4.91
13	3.30	3.09	3.20	3.45	3.90	3.55	3.90	4.36	5.10	4.45	4.20	4.73	4.20	4.45	4.90	5.09
14	2.60	2.55	4.40	3.18	3.70	2.91	4.90	4.09	6.00	5.55	5.60	6.18	5.00	5.00	5.20	6.00
15	2.40	3.00	3.40	2.09	3.50	2.45	5.50	3.73	5.40	5.36	5.50	6.09	3.80	4.36	4.70	6.00
16	5.10	4.91	4.50	5.45	5.50	4.36	3.20	4.64	4.60	5.18	4.80	5.64	4.10	3.82	5.30	5.36
17	2.30	3.18	3.00	2.64	3.80	3.00	4.90	3.73	5.50	5.09	4.70	4.45	4.70	4.82	4.40	5.55
18	2.40	2.73	3.10	2.27	3.90	1.82	3.30	3.36	4.60	4.27	4.10	4.18	3.30	3.45	4.30	4.09
19	2.50	2.64	3.70	2.55	3.30	3.00	5.10	4.00	5.90	5.27	5.30	5.18	4.10	4.64	4.80	5.91
20	1.70	1.91	2.80	1.82	3.00	2.55	4.00	3.64	3.40	3.64	3.40	3.18	3.60	4.64	4.20	3.55
21	2.00	2.00	3.20	1.91	3.80	2.82	4.90	3.91	5.50	3.82	5.00	4.45	4.90	4.36	4.60	4.73
22	2.50	3.45	2.70	2.55	3.40	2.18	3.10	3.55	4.50	4.18	4.50	4.82	4.50	3.36	4.00	4.27
23	2.00	2.27	2.30	1.82	3.10	2.18	3.30	2.64	3.70	2.73	3.20	3.91	2.70	3.36	3.60	3.73
24	1.60	2.18	3.20	2.36	3.40	2.73	4.20	3.27	4.80	4.64	4.30	5.27	3.80	4.18	4.30	4.91
25	2.30	2.00	3.40	1.82	3.40	2.27	4.50	3.55	5.80	5.73	5.60	6.27	3.60	4.55	5.20	6.00
26	4.70	5.18	4.60	5.27	4.50	3.82	3.00	4.45	4.80	5.27	4.80	5.64	4.30	4.00	4.70	5.55
27	3.20	3.00	4.20	3.00	2.90	3.27	4.60	3.91	3.90	4.27	3.90	4.36	4.50	4.45	4.20	4.18
28	2.60	2.73	3.50	2.73	3.50	2.64	4.70	3.45	5.60	5.64	4.90	5.91	4.30	4.91	5.00	5.45
29	2.60	2.45	3.30	2.64	3.40	2.36	3.80	3.36	5.70	5.09	4.50	5.09	3.70	4.27	4.70	5.09
30	3.20	3.64	2.90	2.55	4.90	3.73	2.80	3.45	3.20	4.18	3.60	3.82	3.40	3.64	3.50	3.73
31	3.50	4.27	4.20	3.82	4.40	3.00	4.70	4.09	5.70	5.36	5.10	5.64	4.40	4.36	5.60	5.45
32	1.70	1.82	2.10	1.73	3.20	2.18	3.00	2.91	4.70	3.82	3.00	3.82	3.90	4.36	4.00	4.64
33	3.20	4.00	3.60	3.45	4.30	3.00	4.40	4.27	5.30	5.36	5.30	5.55	4.80	4.45	4.80	5.55
34	2.20	2.55	3.40	2.82	3.20	2.27	4.40	3.55	6.10	5.73	5.20	6.09	4.50	5.09	5.20	6.18
35	1.50	2.09	2.70	1.91	3.10	2.00	4.80	3.55	5.80	4.27	5.00	5.36	3.70	3.18	5.50	5.36
36	3.50	1.73	3.20	2.36	3.20	2.91	4.00	3.27	4.20	3.27	4.00	2.64	4.50	4.36	3.50	3.00
37	1.90	2.64	3.20	2.36	4.80	2.64	4.40	3.00	5.30	5.00	5.00	5.45	4.10	4.45	4.80	5.45
38	1.90	2.36	2.60	1.73	4.20	2.55	3.10	3.09	4.70	3.82	3.40	3.55	3.40	3.73	4.10	4.00
39	1.90	2.45	3.00	2.91	4.40	3.09	4.30	3.27	5.30	4.00	5.00	3.55	4.30	4.00	4.40	3.82
40	2.00	1.73	1.90	1.55	2.50	2.09	4.30	2.00	5.90	5.55	5.00	6.09	3.60	4.82	4.80	6.09
41	2.80	2.82	3.70	2.91	4.20	2.64	4.80	3.91	4.80	4.73	4.00	4.00	3.70	4.09	4.40	4.27
42	1.30	1.82	2.50	1.55	4.10	1.91	3.40	2.00	4.30	2.91	3.80	3.00	3.40	2.64	3.40	3.00

Table 3.3a gives mean intergroup differences in the two conditions for each group. These were analysed using 2 factor (experience x condition) completely randomised ANOVA (BMDP2V) and the relevant significance levels have been included in the table.

Table 3.3b gives mean intragroup similarities in the two conditions for each group. These were analysed using 3 factor ANOVA (also BMDP2V) with a repeated measure on the third (experience x condition x Target type). Again, relevant significances are included in the table and Tables 3.3a and 3.3b are inserted in the text, (p. 222 and 224).

TABLE 3.2

Mean judgements of 8 normal children labelled and unlabelled

	"NORMAL LABEL GROUP"				"SUBNORMAL LABEL GROUP"											
	Target 1		Target 2		Target 9		Target 11		Target 3		Target 4		Target 10		Target 12	
	unla	lab'	unla	lab'	unla	lab'	unla	lab'	unla	lab'	unla	lab'	unla	lab'	unla	lab'
1	3.63	3.94	4.56	4.44	4.50	3.44	3.81	3.72	5.25	4.17	5.63	5.00	4.94	4.44	3.88	3.56
2	3.50	2.67	2.44	3.06	4.88	4.39	2.94	2.50	4.75	3.83	5.31	4.44	4.44	3.11	2.19	3.06
3	3.50	3.28	3.06	3.11	4.88	4.50	3.13	2.94	5.50	4.28	5.06	3.94	3.88	3.56	3.38	3.11
4	3.44	2.61	2.50	2.44	3.69	4.00	2.50	2.28	4.25	3.39	3.94	3.72	3.25	2.44	2.50	2.94
5	2.63	2.56	2.88	3.00	3.69	3.22	2.50	2.11	3.94	3.28	4.75	4.11	3.31	2.89	2.44	2.50
6	3.44	3.67	4.13	4.17	3.63	2.94	2.69	3.39	4.69	4.22	5.50	5.28	5.00	4.83	3.63	2.89
7	3.06	3.33	3.63	3.72	3.81	3.22	2.88	3.17	3.81	3.72	4.75	4.39	4.50	3.94	3.94	3.11
8	3.25	3.44	3.19	3.17	4.94	4.33	3.38	2.83	4.81	4.28	5.13	4.22	4.19	3.61	3.25	3.33
9	3.63	4.17	4.31	3.61	4.44	3.06	3.19	4.17	5.50	4.28	5.63	4.67	5.13	4.61	4.44	3.39
10	2.00	2.28	2.13	2.78	2.63	2.22	1.69	1.61	3.56	2.72	4.19	4.17	2.56	2.39	1.81	2.06
11	2.69	2.72	2.56	2.72	3.44	2.94	2.56	2.78	4.19	3.50	4.13	3.83	3.25	3.56	2.00	3.00
12	3.56	3.39	3.63	3.61	4.75	4.44	3.38	3.00	5.06	4.06	5.25	4.78	3.88	4.00	3.31	3.50
13	4.31	3.89	3.63	4.39	4.88	3.89	3.00	3.33	4.94	4.61	4.50	5.06	4.63	4.72	3.25	3.83
14	3.69	3.83	4.00	3.72	4.56	3.33	3.31	4.28	4.38	4.28	5.38	5.17	4.63	4.94	3.94	4.28
15	3.13	3.89	3.13	3.44	3.56	3.00	3.69	4.00	4.75	4.28	5.50	4.89	4.69	4.89	3.19	3.50
16	4.19	5.39	4.69	5.00	3.13	3.06	4.25	5.11	5.19	3.67	4.50	4.33	4.88	4.78	4.94	5.33
17	3.81	3.67	3.56	3.61	5.13	4.33	3.50	3.50	5.13	4.61	5.13	4.72	4.44	4.72	3.06	3.33
18	3.56	3.61	3.25	3.50	2.94	2.94	2.88	2.89	4.44	3.61	4.44	4.06	4.13	3.67	3.38	2.83
19	3.44	3.44	3.63	3.67	4.94	3.94	3.75	3.72	4.88	4.78	5.69	4.89	4.81	4.72	3.75	3.56
20	3.31	2.72	2.44	2.67	4.88	4.17	2.88	2.17	4.56	3.61	4.69	4.11	3.81	2.94	2.13	2.44
21	3.38	3.94	3.19	3.11	3.94	3.72	3.44	2.78	4.56	3.61	4.69	4.11	3.75	3.61	2.88	3.00
22	3.31	3.28	3.81	3.00	3.75	2.89	3.06	2.67	4.38	3.39	5.00	3.72	4.13	2.33	3.00	2.89
23	2.69	2.28	2.69	2.28	3.31	2.61	2.44	1.83	3.75	2.94	4.00	3.17	3.06	2.67	2.00	2.11
24	3.19	3.17	2.88	3.00	3.88	3.39	2.81	3.17	4.50	3.83	4.50	4.22	3.88	3.89	3.06	3.11
25	3.00	3.28	3.13	3.28	3.38	2.78	2.75	3.89	4.63	4.17	5.25	5.11	4.56	4.67	3.13	3.44
26	4.88	4.78	5.19	4.89	4.81	3.28	4.19	4.72	5.38	4.50	4.88	4.33	4.94	5.17	5.25	4.89
27	3.06	3.33	3.13	3.33	4.25	3.83	3.44	3.33	4.56	4.50	4.69	4.28	4.00	4.06	2.81	3.17
28	3.75	3.94	3.75	3.67	4.31	3.11	3.31	4.11	5.06	4.28	5.50	4.61	5.06	4.67	4.31	3.39
29	3.63	4.00	4.13	3.67	3.44	2.61	2.69	3.06	4.44	3.89	5.06	4.44	4.19	4.22	3.50	3.44
30	3.69	4.11	3.38	3.17	3.81	3.44	3.13	3.83	5.19	3.22	3.75	3.89	3.75	3.39	3.00	3.67
31	3.81	4.78	4.88	4.67	4.44	3.50	3.94	4.67	5.00	4.11	5.44	5.17	5.25	4.83	4.63	4.00
32	2.63	2.39	2.06	2.89	3.25	3.17	2.75	2.50	4.19	3.33	3.75	3.44	3.38	2.72	2.50	2.72
33	4.13	4.89	4.19	4.61	3.88	3.94	3.06	3.94	5.25	4.17	5.06	4.67	5.25	4.83	3.50	4.44
34	3.69	3.50	3.25	3.61	4.69	3.67	3.63	3.50	5.19	4.33	5.44	5.11	4.75	4.72	2.94	3.44
35	3.38	2.50	2.25	2.67	2.56	2.06	2.25	1.94	4.25	2.94	5.81	5.22	4.25	2.17	1.94	2.44
36	2.88	2.83	2.50	2.78	3.81	3.94	3.44	2.28	3.19	3.33	4.19	3.28	3.06	3.17	2.38	2.61
37	3.31	3.89	3.88	3.67	4.19	3.44	3.00	3.17	5.06	3.89	5.06	4.39	4.38	4.39	3.25	3.44
38	3.19	3.22	3.13	2.94	3.56	3.33	2.56	2.72	4.13	3.33	4.06	3.67	3.13	3.39	2.63	2.94
39	2.88	3.61	3.81	3.56	3.94	3.28	2.69	2.72	4.81	3.61	4.38	3.83	3.69	3.11	3.06	3.61
40	2.81	2.78	2.19	3.11	3.00	2.78	2.38	3.22	4.06	3.56	5.06	4.72	3.06	4.28	2.19	2.67
41	3.38	3.94	3.81	4.06	4.38	3.78	3.25	3.11	4.69	3.72	4.69	4.56	4.25	4.06	3.63	4.00
42	2.88	2.67	2.81	2.44	3.44	2.33	2.75	2.44	4.19	2.56	4.06	3.22	3.19	2.72	2.75	2.56

TABLE 3.2a
Intergroup differences when all Targets were normal

Item	Unlabelled	Labelled	
agile/poorly coordinated	-1.31	-1.39	
chatty/uncommunicative	-3.00	-2.22	
secure/insecure	-2.75	-1.94	
loving/cold	-1.88	-2.17	
healthy/illness prone	-1.88	-1.67	
speech clear/unclear	-1.31	-0.94	
takes care of self/dependent	-2.06	-1.39	
contented/frustrated	-2.13	-2.00	
good/bad at concentrating	-1.88	-2.17	
physically normal/h'capped	-1.13	-1.11	
family's pride/shame	-1.50	-1.00	
easy/hard to relate to	-1.94	-1.56	
predictable/unpredictable	-2.69	-0.89	.001
mature/childish for age	-2.00	-1.44	
quick learner/slow learner	-1.81	-2.06	
quiet/noisy	-2.19	-2.83	
well/poorly understood	-2.19	-1.72	
not embarrassing/embarrassing	-1.56	-1.39	
good/bad self expression	-2.38	-1.28	.05
happy/sad	-2.94	-2.00	.05
attractive/unattractive	-1.63	-2.11	
clean/dirty	-1.56	-1.44	
not frightening/frightening	-1.63	-0.94	
asset/burden	-1.56	-1.22	
high/low intelligence	-1.38	-1.78	
calm, stable/excitable	-2.00	-1.89	
high/low self esteem	-1.88	-1.22	
clear/confused thinker	-1.75	-1.50	
knowing/not knowing right	-1.38	-1.56	
not aggressive/aggressive	-2.06	-2.50	
careful/accident prone	-1.13	-1.50	
wanted/unwanted	-1.88	-1.06	.04
tidy/untidy	-1.56	-1.61	
socially skilled/inept	-2.25	-1.17	.04
normal/strange face	-2.00	-1.67	
wanting/unwilling to join in	-2.81	-2.44	
easy/strain for family	-1.50	-1.56	
nice/nasty to live with	-1.44	-1.22	
helpful/obstructive	-1.19	-1.56	
normal/abnormal	-1.69	-2.22	
sensitive/insensitive	-2.00	-1.78	
welcome/unwelcome	-1.06	-1.28	

TABLE 3.2b

Intragroup similarities when all Targets are normal

	UNLABELLED		LABELLED		
			"normal"	"subnormal"	
agile/poorly coordinated	0.95	0.89	0.83	0.81	
chatty/uncommunicative	1.48	1.30	0.99	1.09	.008
secure/insecure	1.29	1.32	0.95	0.90	.03
loving/cold	0.80	1.09	0.88	0.91	
healthy/illness prone	1.02	1.10	0.78	1.16	
speech clear/unclear	1.14	0.97	0.84	0.89	
takes care of self/dependent	1.06	1.20	0.80	0.84	.03
contented/frustrated	1.03	0.96	0.84	0.99	
good/bad at concentrating	1.27	0.86	0.96	1.06	
physically normal/h'capped	0.75	1.08	0.55	1.13	
family's pride/shame	0.83	0.96	0.39	0.78	.03
easy/hard to relate to	1.03	1.00	0.77	0.88	
predictable/unpredictable	1.28	1.13	0.65	0.80	.0007
mature/childish for age	1.07	1.01	0.84	0.74	
quick learner/slow learner	1.07	1.11	0.95	1.07	
quiet/noisy	1.20	1.08	1.18	0.97	
well/poorly understood	1.19	1.00	0.87	0.90	
not embarrassing/embarrassing	0.98	0.77	0.73	0.69	
good/bad self expression	1.30	1.09	0.83	0.80	.01
happy/sad	1.36	1.08	0.98	0.99	
attractive/unattractive	0.93	0.88	0.87	0.80	
clean/dirty	1.08	0.86	0.47	0.76	.02
not frightening/frightening	0.92	0.94	0.45	0.82	
asset/burden	0.88	0.77	0.56	0.79	
high/low intelligence	0.95	1.02	0.89	0.99	
calm, stable/excitable	1.12	0.87	1.03	0.76	
high/low self esteem	0.98	0.90	0.70	0.72	
clear/confused thinker	1.13	0.96	0.84	0.84	
knowing/not knowing right	1.05	1.07	0.81	0.86	
not aggressive/aggressive	1.20	1.03	0.87	0.87	
careful/accident prone	0.95	0.74	1.00	0.68	
wanted/unwanted	0.85	1.05	0.53	0.62	.004
tidy/untidy	1.21	0.87	0.88	0.76	
socially skilled/inept	1.19	1.04	0.69	0.82	.04
normal/strange face	1.13	1.49	0.70	1.58	
wanting/unwilling to join in	1.26	1.10	1.09	1.06	
easy/strain for family	1.13	0.96	0.81	0.80	
nice/nasty to live with	0.79	0.75	0.57	0.59	
helpful/obstructive	0.92	0.86	0.74	0.82	
normal/abnormal	0.85	1.31	0.99	1.19	
sensitive/insensitive	1.13	0.80	0.83	0.89	
welcome/unwelcome	0.67	0.79	0.50	0.71	

4.4 DISCUSSION

Four normal and four subnormal Targets for conditions 1 and 2 were selected from a set of 15 slides of children attending a child assessment centre in Bristol. This provided the first lesson, since three of the four provisionally selected on the basis of apparent normality, it transpired, had been diagnosed subnormal, and similarly, one of the four apparently subnormal Targets was normal. This vindicated the argument that most subnormal children do not present obvious visual cues (Gottlieb, 1975a; Burden, 1977), but also meant that it was not feasible to use Targets whose retardation varied by consistent amounts on some "objective" criterion, like IQ, in the same way that Tajfel and Wilkes' stimuli varied in absolute length. Instead, perceived normality had to be used. This was serious, because the study entailed an unavoidable design problem: quite simply, if patently subnormal Targets were used, subjects most probably would categorise them for themselves in the unlabelled condition, whereas normal looking subnormal targets would not be perceived to correlate with the classification in the labelled condition. A solution was reached by means of the pilot study in which a dozen subjects simply gave verbal subnormality ratings of the available slides. On this basis, the selected distribution ranged from extremely subnormal to "supernormal", although none of the subnormal group

presented intrusive stigma or was deformed, in the hope that implicit labelling would not be triggered. It is, of course, acknowledged that the set of slides could have some bearing on results and that replications of the experiment would be wise. For instance, although elimination of stigmatised children and the pilot study meant few choices had to be made, selections ostensibly made on the basis of the slides' clarity, might have been influenced by experimenter bias. Indeed, the whole set of available slides might have been determined by children's appeal, interest as cases or some other factor. The four normal Targets, however (numbers 1,2,3 and 4) included one who looked subnormal (number 4), and similarly, the four subnormal Targets (numbers 5,6,7 and 8) included one who appeared normal, (number 7), despite the fact that the overlap would weaken the perceived correlation with the classification, because it introduced a measure of ecological validity into the study and allowed the hypothesis that labels would have the greatest effect where cues are minimal, to be tested. Finally, because relative differences rather than absolute judgements were of interest, no attempt was made to standardise Target slides. In case activities and backgrounds interact with labels, however, a replication using neutral "portrait" shots might again be wise. Copies of the 8 slides are given in Appendix 3.1.

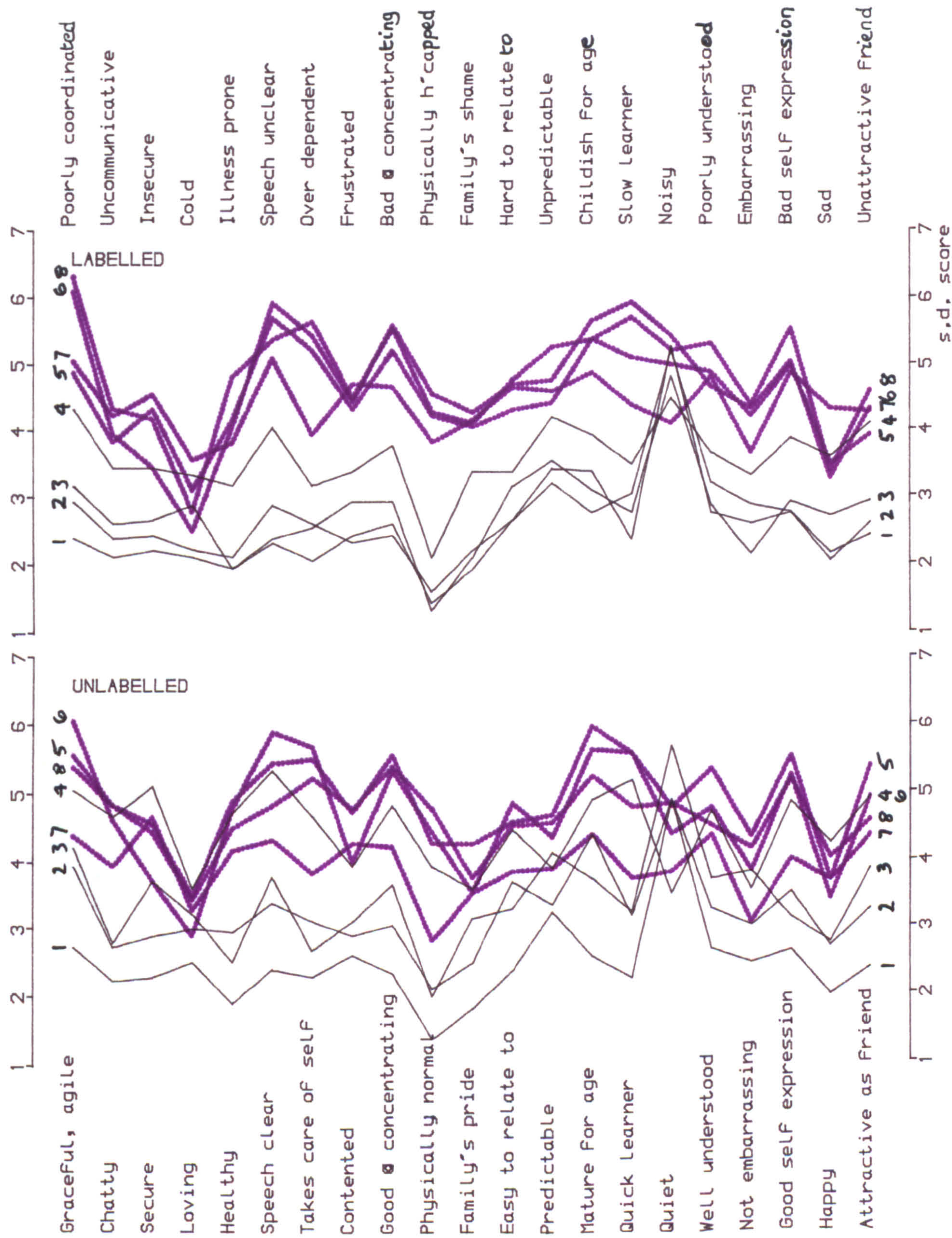
In parenthesis, it is worth noting that the pilot also

provided a second lesson. Two of the dozen subjects had had professional experience with retardates, and interestingly, these seemed more likely to give "subnormal" ratings, interpreting, for example, the angle at which a sleeping child's hand lay as a clue. The net result was that they missed fewer retardates but also misjudged more normals. Of course, the numbers are too small to be of significance, but they are consistent with Tajfel and Wilkes' subsidiary hypothesis that experience increases susceptibility to labels, and as will be fully discussed in the following chapter, they are consistent with the idea that professionals evince greater evaluative bias.

Mean labelled and unlabelled semantic differential scores on the 42 focal dimensions are given for each Target in Table 3.1. These are displayed as profiles in Figure 3.1, which although complex, shows clear intragroup convergence and intergroup divergence on the majority of items in the labelled compared to the unlabelled condition.

FIGURE 3.1

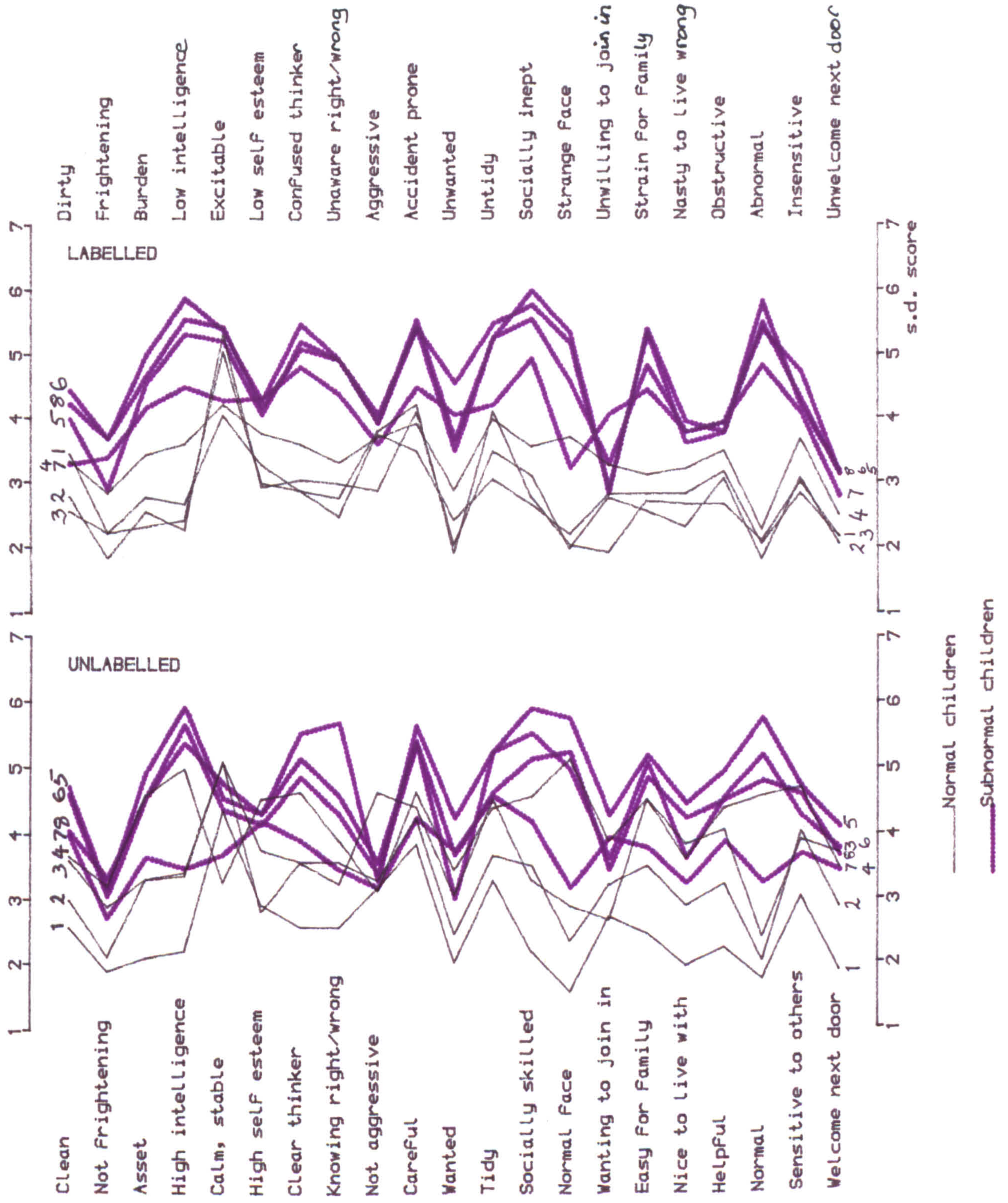
SEMANTIC DIFFERENT¹ PROFILES OF 8 CHILDREN -1 to 4 normal, 5 to 8 subnormal- LABELLED AND UNLABELLED



— Normal children
 — Subnormal children
 -190-

FIGURE 3.1 -continued-

SEMANTIC DIFFERENT PROFILES OF 8 CHILDREN -1 to 4 normal, 5 to 8 subnormal- LABELLED AND UNLABELLED



Clearly, the 4 subnormal children were judged more like each other and less like the 4 normal children when they were labelled, and similarly, the 4 normal children were judged more like each other and less like the subnormal group. Thus, classification has affected perception stereotypically, and informally, the first and central hypothesis has been confirmed.

More formally, Table 3.1a shows that the interclass difference increased on every single variable in the labelled compared with the unlabelled condition, which, in practical terms, has meant that labelling reduced or reversed the overlap between the classes. ANOVA showed that this was significant on the majority, (26/42), and with 2 exceptions, the expected positive and negative shifts for normal and subnormal class boundaries, respectively, also occurred on each of these. (On "sensitive/insensitive to others", and "welcome/unwelcome next door", there were large and tiny positive shifts, respectively.)

TABLE 3.1a
Perceived intergroup differences

Item	Labelled	Unlabelled	p
agile/poorly coordinated	-0.11	-1.50	.02
chatty/uncommunicative	-1.28	-1.72	
secure/insecure	-0.83	-3.06	.0002
loving/cold	-1.78	-2.50	
healthy/illness prone	-0.17	-1.78	.01
speech clear/unclear	-0.06	-1.94	.005
takes care of self/dependent	-0.06	-1.89	.002
contented/frustrated	-0.67	-1.61	
good/bad at concentrating	0.06	-1.56	.02
physically normal/h'capped	0.72	-1.83	.0007
family's pride/shame	-0.17	-1.28	
easy/hard to relate to	-0.44	-1.89	.01
predictable/unpredictable	-0.89	-2.00	.04
mature/childish for age	-0.06	-1.39	.02
quick learner/slow learner	0.56	-1.78	.0002
quiet/noisy	-2.78	-3.33	
well/poorly understood	-0.28	-1.61	.04
not embarrassing/embarrassing	-0.33	-2.28	.0004
good/bad self expression	-0.17	-1.33	.02
happy/sad	-1.28	-1.83	
attractive/unattractive friend	-1.06	-1.56	
clean/dirty	-1.33	-1.50	
not frightening/frightening	-0.94	-1.94	
asset/burden	0.28	-1.72	.0002
high/low intelligence	0.72	-1.72	.0002
calm, stable/excitable	-2.06	-3.00	.03
high/low self esteem	-0.06	-1.50	.003
clear/confused thinker	0.22	-1.78	<.0001
knowing/not knowing right	0.06	-1.61	.0022
not aggressive/aggressive	-2.11	-2.78	
careful/accident prone	-0.89	-1.78	
wanted/unwanted	-0.17	-2.06	.003
tidy/untidy	-1.11	-2.06	
socially skilled/inept	1.00	-1.00	.002
normal/strange face	-1.67	-2.33	
wanting/unwilling to join in	-2.00	-2.44	
easy/strain for family	0.28	-2.11	.0001
nice/nasty to live with	-0.83	-1.61	
helpful/obstructive	-1.56	-1.83	
normal/abnormal	1.28	-1.83	.0001
sensitive/insensitive	-0.78	-2.22	.004
welcome/unwelcome	-0.39	-1.50	.02

The 16 items on which interclass difference was only insignificant, included "chatty/incommunicative", "loving/cold", "happy/sad", "clean/dirty", "wanting/not

wanting to join in" and "helpful/obstructive". Since these are items on which positive beliefs were expressed in Study 1, it is likely that although they are associated with retardates, they do not distinguish between retardates and normals. Put another way, in accordance with hypothesis 1d, they do not correlate with the classification. Clearly, an empirical examination of *distinguishing* (as opposed to associated) items would be a useful topic for further research, and would, hopefully, confirm this interpretation.

This also implies of course, that the bulk of items defining the social meaning of "retardates" are those that distinguish them negatively from normal, a serendipitous fact for the present study.

Interclass divergence was also not significantly increased on "not frightening/frightening", "noisy/quiet", "careful/accident prone", "attractive friend/unattractive", "not aggressive/aggressive" and "contented/frustrated". Although Study 1 suggested that retardates are associated with the negative, and intuitively, normals might be associated with the positive poles of these items, it seems likely that any correlation with the classification normal/subnormal, was ineffectual in the present context, because all the Targets were children and likely all to be perceived as noisy, not frightening and so on to subjects.

Similarly, contextual interactions are likely to account for the lack of a significant increase in interclass divergence

on "tidy/untidy" and "normal/abnormal face", since labels are less likely to be informative for explicitly visual judgements made from slides. Having made this point, the normal class boundary on the latter variable was defined by a girl whose chubby puzzled face appeared more subnormal than the little boy who bounded the subnormal class. Hence, the substantial, if insignificant reduction of interclass overlap in the face of what Yoshida and Meyers (1975) would have called "first hand evidence", attests to the powerful impact of the labels.

This leaves "family's pride/family's shame" and "nice/nasty to live with". Figure 3.1 shows the increase in interclass divergence for the former was substantial and since it borders on significance ($p = .06$), further discussion does not seem warranted. In Study 1, mean beliefs on the latter were precisely at the neutral point in the semantic differential scale, and therefore, this variable was probably irrelevant.

On the other side of the coin, interclass divergence showed a significant increase at or beyond the .0001 level on 3 items, "normal/abnormal", which may be assumed a priori to be almost perfectly correlated with the normal/retarded classification, "clear/confused thinker" and "strain/easy for the family", which in Study 1 were among the items most closely associated with retardates.

As Table 3.1b shows, perceived intraclass similarity followed a similar pattern: overall, it increased on every

single variable as a function of the labels. In this case, however, both analyses and results are less straightforward. ANOVA with one between subject factor (label vs no label) and one within (normal vs subnormal group) showed that labelling had a significant main effect on only 22 variables - just over half. (Probabilities are included in Table 3.1b.) Fortunately - and presumably for the same reasons, the 20 exceptions correspond almost perfectly with the items on which interclass difference was not significantly increased.

TABLE 3.1b
Mean intragroup similarities

Item	Labelled		Unlabelled		
	Normal	Subnormal	Normal	Subnormal	
agile/poorly coordinated	0.90	0.95	1.24	0.96	
chatty/uncommunicative	1.02	1.11	1.35	0.96	
secure/insecure	0.76	0.91	1.68	1.23	.0002*
loving/cold	0.79	1.01	1.24	0.83*	
healthy/illness prone	0.74	0.80	1.39	0.99	.004
speech clear/unclear	1.05	0.77	1.49	1.00	.02
takes care of self/dependent	0.71	1.08	1.37	1.19	.004*
contented/frustrated	0.92	0.87	1.00	1.10	
good/bad at concentrating	0.87	0.74	1.40	0.87	.02*
physically normal/h'capped	0.43	0.98	1.28	1.36	.0008
family's pride/shame	0.74	0.66	1.09	0.90	.03
easy/hard to relate to	0.67	0.88	1.19	1.02	.01*
predictable/unpredictable	0.82	0.84	0.86	1.20	
mature/childish for age	0.67	0.80	1.26	0.90	.002
quick learner/slow learner	0.73	0.74	1.36	0.99	.0004
quiet/noisy	1.01	1.11	1.27	1.19	
well/poorly understood	0.77	0.90	1.13	0.93	
not embarrassing/embarrassing	0.66	0.72	1.22	0.90	.005
good/bad self expression	0.85	0.87	1.10	0.99	
happy/sad	0.88	0.89	1.11	0.94	
attractive/unattractive	0.89	0.76	1.25	0.85	
clean/dirty	0.92	0.75	1.13	0.95	
not frightening/frightening	0.72	0.80	1.02	0.91	
asset/burden	0.60	0.63	1.22	0.94	.0007
high/low intelligence	0.72	0.71	1.29	1.13	.0007
calm, stable/excitable	1.05	0.83	1.25	1.04	
high/low self esteem	0.53	0.31	1.07	0.77	.0008
clear/confused thinker	0.70	0.67	1.23	1.01	.0001
knowing/not knowing right	0.65	0.77	1.06	1.20	.001
not aggressive/aggressive	0.86	0.98	1.08	0.90	
careful/accident prone	0.91	0.71	1.05	0.97	
wanted/unwanted	0.63	0.77	1.14	1.11	.005
tidy/untidy	0.97	0.84	1.42	0.93	
socially skilled/inept	0.64	0.59	1.21	0.94	.0006
normal/strange face	1.15	1.42	1.75	1.26*	
wanting/unwilling to join in	1.06	1.11	1.43	1.04	
easy/strain for family	0.76	0.65	1.28	0.99	.003
nice/nasty to live with	0.77	0.58	1.05	0.90	.05
helpful/obstructive	0.88	0.87	1.18	0.97	
normal/abnormal	0.83	0.62	1.54	1.23	.0001
sensitive/insensitive	0.66	0.95	1.14	0.92*	
welcome/unwelcome	0.35	0.57	1.03	0.78	.004*

Two variables, "family pride/family's shame" and "nice/nasty to live with", however, showed significant increased intraclass similarity unaccompanied by interclass

disimilarity. The former, it will be remembered may have just failed to show it by chance. The latter remains problematic, because Figure 3.1 does suggest that a labelling effect occurred. Perhaps the lack of a significant increase in interclass divergence merely illustrates that the loci associated with normal and subnormal group membership stand relatively close together.

Conversely, six items on which increased intraclass convergence failed to reach significance, had shown significant increased interclass divergence:

"graceful/poorly co-ordinated", "predictable/unpredictable", "well/poorly understood", "good/bad self-expression", "stable/excitable" and "sensitive/insensitive to others".

These remain something of a puzzle, perhaps merely reflecting Tajfel and Wilkes' results and Eiser's (1979) comment that intragroup convergence is more difficult to demonstrate than intergroup divergence.

In this case, intraclass similarity showed a significant increase at the .0001 level on two items, "normal/abnormal" and "clear/confused thinker", which to recap, seem most relevant to the normal/retarded classification.

Without labels, Figure 3.1 also shows that the profiles of normal Targets 1,2 and 3, together with 7, the subnormal Target who looked normal, tend to be grouped together.

Similarly, subnormal profiles 5,6 and 8 together with 4, the normal girl who looked subnormal, form a second closer

group. This suggests, as feared, that subjects stereotyped unlabelled Targets for themselves which would have weakened the contrast between conditions - although, without a method of objective ranking, it is possible that the choice of Targets was poor, and that this grouping reflected their characteristics in a direct and unbiased manner. Table 3.1c (see results section) which gives the perceived normality ratings, suggests this is unlikely because Targets 2,3, and 7 rather than 4,5,6 and 8 received the most similar scores. However, because these ratings might have been influenced by participation in the experiment itself (although only data from subjects who had been in unlabelled conditions was used), and because perceived normality does not necessarily correlate perfectly with the dependent measures, Table 3.1c can only offer a rough guide.

In fairness, it is also possible that the apparent implicit stereotyping was an artefact of the instrument: since items had been chosen for their relevance to retardates, they might have encouraged subjects to seek cues of subnormality. This however, seems unlikely because although "retardates" might suggest "loving", "abnormal", "happy", etc., the reverse seems improbable.

For these reasons, the first interpretation seems most likely, and subjects probably tended to stereotype unlabelled Targets for themselves, which is supported because perceived group membership and biased perception do not, of course, depend on explicit labels in real life, as

anyone who has judged a hippy from his appearance knows. What are more interesting, however, are the group level reverberations, since it looks as if the presence of a retarded individual, once inferred, also biases the way in which normals are perceived.

A related point, also illustrated in Figure 3.1, is that the label "normal" visibly produces a more marked effect on the profiles of the normal group. As Table 3.1b confirms, this is probably because the subnormals tended to be stereotyped more unlabelled, and indeed, ANOVA revealed that this interaction was significant ($p < .05$) on some eight variables (which have been marked with an asterisk.)

Together, these points have implications for special education: labelling children subnormal - at least in schools of mixed ability - labels other children normal, by default, and this is likely to have a homogenising effect on the way both

groups are perceived, which, ironically, may be more pronounced on the latter.

In summary, the primary hypothesis has been confirmed: labels significantly increased perceived interclass divergence and intraclass convergence of normal and subnormal children on items that commonsense and the literature suggested are correlated with the normal/retarded dichotomy. This involved positive and negative shifts in normal and subnormal class boundaries, respectively, and

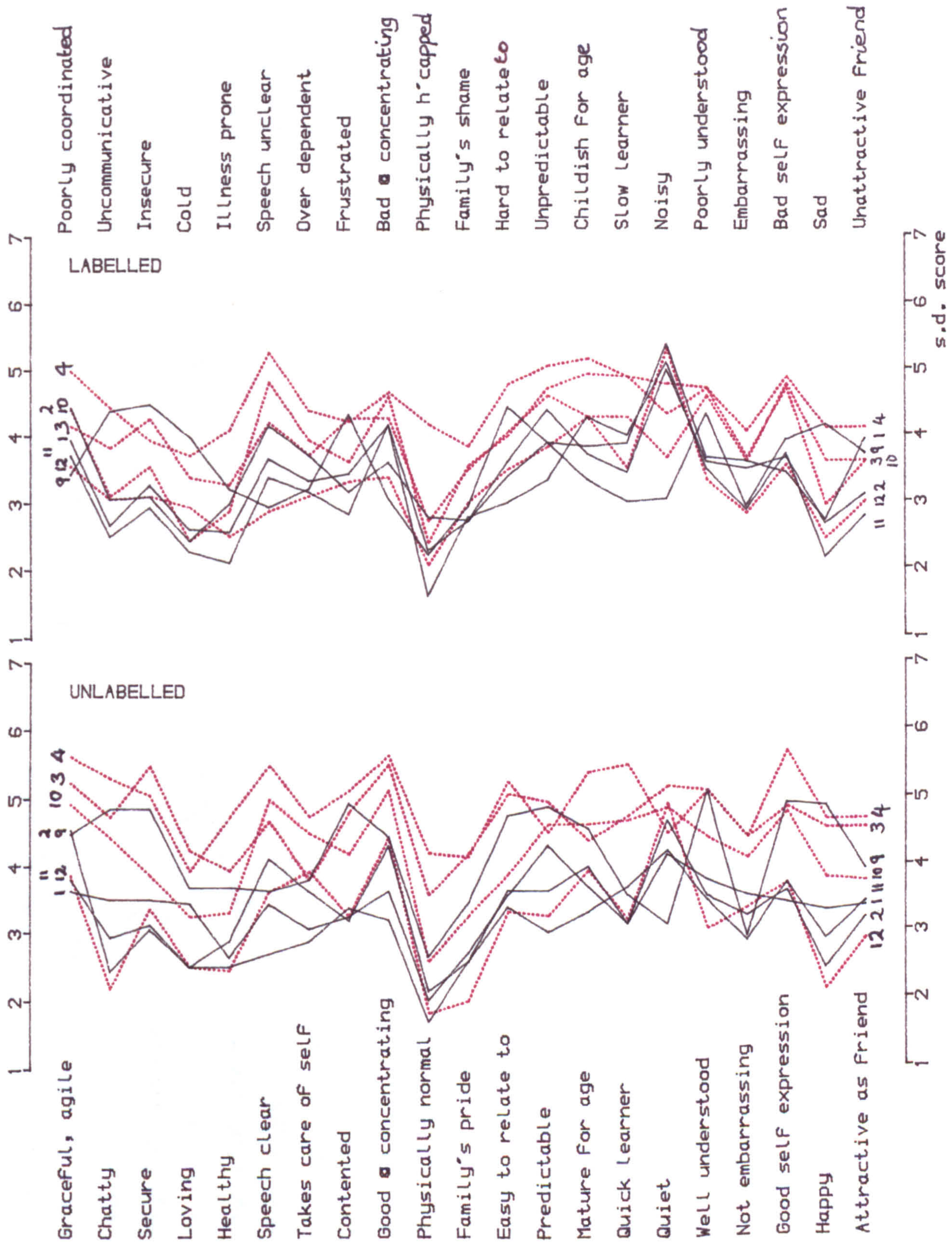
there was some evidence that the most marked effects occurred on the most relevant dimensions. This means that the very act of labelling probably creates a perceived cleavage between the characteristics of normal and subnormal children, which is likely to be seen as further justification for the classification, and which, at a personal level, is likely to have the most swingeing effects precisely where the greatest differentiation is required to place borderline cases.

At this point, it should be mentioned that an additional control condition - inconsistent labelling of the Targets - which would have completed the analogy with Tajfel and Wilkes, was not included due to end of term subject attrition! Since no difference was found between inconsistent and un-labelled conditions in the original paradigm, however, it was decided not to pursue this loss. At Tajfel's suggestion, however, a subsidiary experiment using all normal Targets was run. In this case, no labelling effects were predicted because the classification should not correlate with the distribution of Targets.

Mean scores on each item for the 8 normal Targets randomly labelled "normal" or "subnormal", are given in Table 3.2 and displayed as profiles in Figure 3.2, which shows no clear increase in intraclass similarity and interclass dissimilarity in the labelled condition, since for some reason, all eight profiles seem closer together.

FIGURE 3.2

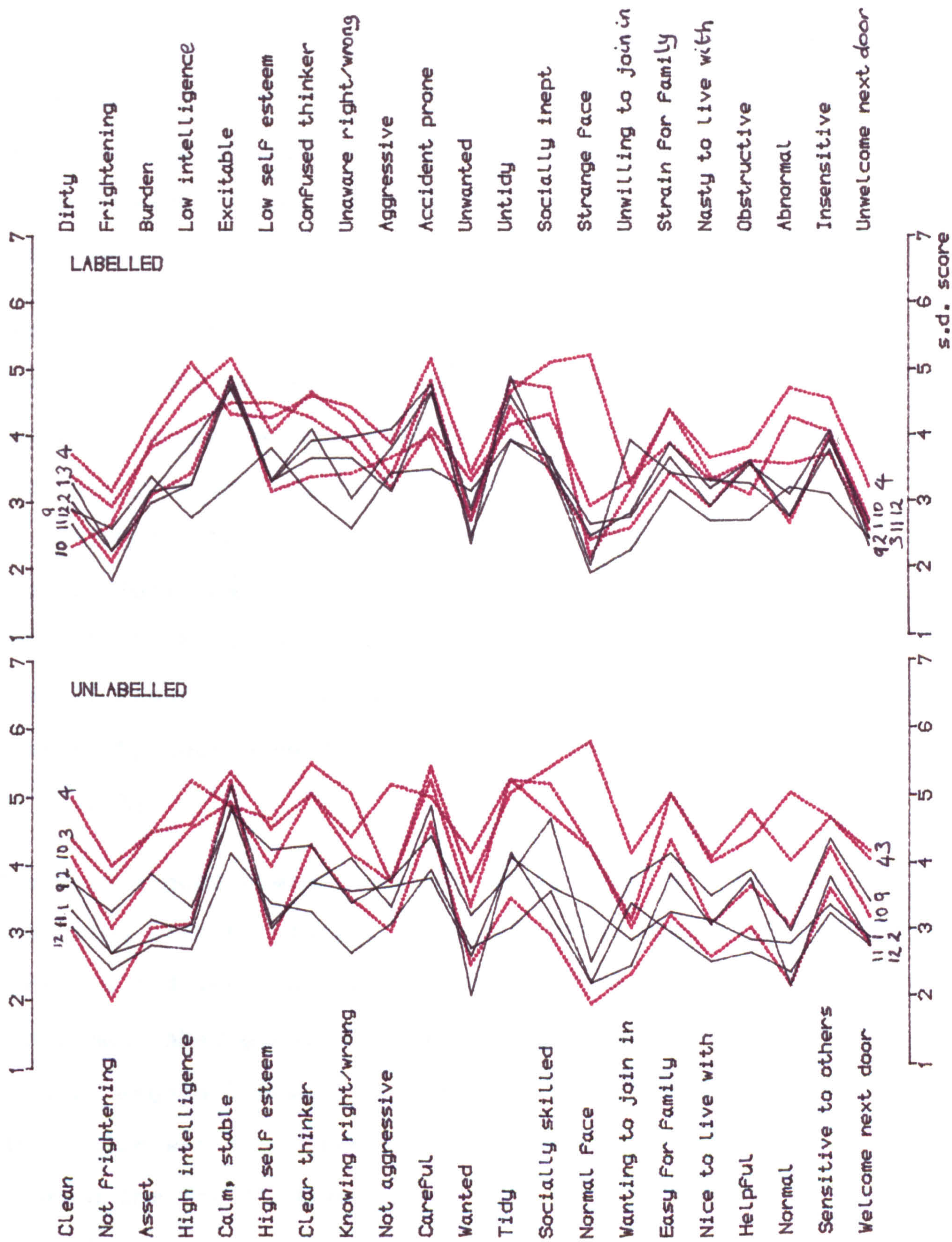
SEMANTIC DIFFERENTIAL PROFILES OF 8 NORMAL CHILDREN LABELLED NORMAL OR SUBNORMAL



— Normal label group
 Subnormal label group
 -202-

FIGURE 3.2 -Continued-

SEMANTIC DIFFERENTIAL PROFILES OF 8 NORMAL CHILDREN LABELLED NORMAL OR SUBNORMAL



— Normal label group

- - - Subnormal label group

Table 3.2a confirms that the labels failed to increase interclass similarity: ANOVA yielded only one difference significant at the .01 level and a further four at .05, and since these 5 items do not seem to form a meaningful pattern, they are perhaps chance effects. Overall, there was an insignificant trend in the "wrong" direction, since interclass similarity *decreased* on 27/42 items.

Coupled with this result, Table 3.2b confirms the notion that all eight profiles were perceived more alike when labelled, since ANOVA yielded 4 increases in intraclass similarity, significant at the 1% level and a further 5 at 5%. Although this is a poor score in comparison to the 22 highly significant results in the main experiment it is unlikely to be a chance effect, because it follows an overall trend: perceived intra -normal and -subnormal group similarity increased on 39 and 35 variables, respectively, ($p < .0001$).

There is a good reason for this trend towards a partial labelling effect: Target 4 the subnormal appearing normal girl, as bad luck had it, was randomly assigned to the subnormal label group along with Target 3. To make matters worse, targets 1 and 2 received normal labels, which means that there was most probably some perceived correlation between the Target distribution and the classification. Thus, the subsidiary experiment does not detract from the main study by indicating that intragroup labelling effects occur across any random series of Targets.

As a final footnote to the first hypothesis, Guskin, (1963) suggests that retardates are conceptualised in different cognitive systems to normals. Within the present approach, it is interesting to speculate that this might correspond to a multidimensional labelling effect, and that separate factor analyses of target ratings might reflect individual differences when unlabelled, but would diverge into distinct patterns for normals and subnormals labelled.

Although such analyses were undertaken, they are not presented here for a number of reasons. At the practical level, they yielded a massive amount of data which, added to the present, already lengthy account, seemed prohibitive and at the theoretical level, results were not sufficiently enlightening to justify full presentation.

To give a feel for the outcomes, items associated with retardation, like "high/low intelligence", "normal/abnormal", "quick/slow learner", "clear/confused thinker", and "good/bad at concentrating" seemed to appear in Factor 1 for most targets unlabelled. Thus, there was no evidence of distinct cognitive systems for the two target types, the presence of a retardate perhaps triggering general perception in dimensions related to retardation to generate common dimensions along which comparisons might be made.

In the labelled condition, it is interesting that "normal/abnormal" and "clear/confused thinker" had dropped

from Factor 1 for normal targets, but were shared by all the subnormal Targets except No. 7, who is the little boy who appeared normal. However, this inkling that the dimensions in which normal and subnormal children are conceptualised differ when they are labelled, was more than swamped by a great number of overlapping items. Nevertheless, future research directed specifically at this topic, might prove fruitful.

Hypothesis 2

Separate analyses of variance were computed for each Target to compare labelled and unlabelled conditions, so that the present study also incorporates 8 more conventional labelling experiments. Table 3.1, it will be remembered, gives mean judgements in each condition, and an asterisk indicates a significant effect at the 5% level, or better.

Target 1, who received the highest perceived normality score, and who was evaluated most positively unlabelled, loses this distinction in the labelled condition, and on Figure 3.1, his profile shifts to overlap with Target 2. In total, "normal" elicited 31 negative shifts, ($p = .002$), although ANOVA was significant on only one, "nice/nasty to live with". Clearly therefore, the label "normal" as well as "mentally retarded" entails disadvantages, which re-emphasises the possible dangers of streaming for "normal" children. Distinctive excellence, it seems is a concept without place among children grouped together on the basis of normal ability. Furthermore, it is impossible not to be struck by the possible cost in human terms to a "super normal" child entering a streamed class, nor to worry that perceived enhanced similarity may deprive bright children of extra stimulation.

As a footnote, it is worth mentioning that Target 1 was judged (insignificantly) less normal when labelled "normal". This superficial confusion is easily cleared up, when it is remembered that conceptually, there seem to be degrees of

normality as well as subnormality, and as might be expected, the value associated with normal class membership may be visualised as "average", well below the highest extreme.

The effect of the normal label for Target 2, who had been ranked below Target 1, was very different. Overall, there were 39/42 positive shifts, ($p < .0001$). Among these, she was rated significantly more of an asset, easier for her family, more graceful, easier to relate to, better at expressing herself and a faster learner with more intelligence. She was also rated healthier with higher self-esteem, more mature, sensitive and welcome to live next door.

Interestingly, the former items in particular, seem reciprocals of some of the beliefs that are characteristic of retardates.

When labelled "normal", Target 3, who had been ranked third in terms of perceived normality, was judged significantly more her family's pride, cleaner, tidier, securer, clearer spoken and better understood, also more graceful, unembarrassing, careful and easy for her family, nicer to live with, more helpful, sensitive and welcome to live next door. Overall, ratings improved on 40/42 items, ($p < .0001$).

Finally, on Target 4, the normal girl who appeared subnormal and who was ranked 6th, "normal" had a striking positive effect: she was judged significantly easier for her family, more of an asset, more intelligent and socially skilled, clearer thinking, quicker learning, better at concentration

and self-expression, better spoken, easier to relate to and better understood, more normal, physically normal and of more normal facial appearance. She was also judged significantly maturer, healthier, more independent, helpful, sensitive, and attractive as a friend. Similarly, she was judged to have higher self-esteem, and to be, more secure, welcome to live next door and chatty. As predicted, the label has had the most striking effect on the way she was judged, eliciting 23 significant positive shifts with 39/42 positive shifts overall, ($p < .0001$). Interestingly, the improvements again seem particularly to contradict the retardate stereotype.

Pessimistically, this may not generalise, because factors likely to maintain perceived subnormal status in real life, probably did not operate within the experiment. For example, in addition to evaluative bias, which has already been discussed, a number of classic experiments have illustrated that observers seek cues that fit into their conceptual frameworks, and therefore, once believed, subnormality is likely to be confirmed (e.g. Tajfel, 1981a). This can not only impede (e.g. Bruner and Potter, 1964) but actually block perception of discrepant information (Bruner and Postman, 1949). Such influences may well underlie the otherwise incredible story of Doug Valpey, (Turner, 1980; Valpey, 1982) who spent 18 years living as a retarded ward of court in a hostel, despite being of normal intelligence and, astonishingly, publishing several papers

on palaeontology in learned journals like "Earth Science". His own verdict, "maybe the label overpowered all their abilities to see the evidence presented" fits exactly the present hypothesis. Unlike such real life situations where the "normal" label might be pit against an accustomed view of an individual as subnormal, subjects in the present completely randomised design only saw Target 4 in one condition and therefore, had no pre-established opinion of her. Future research could perhaps explore whether "normal" applied for the first time is more influential than when applied after "subnormal".

Finally, although sex stereotypes are beyond the present scope, it is possible that these results are artefactually generated by the fact that Targets 2,3, and 4 are girls, and 1, a boy, because "normal" might be qualified by gender, the normal girl being more positively evaluated than the normal boy. However, this does not seem likely in view of its post hoc nature in comparison to the success of the a priori predictions. Clearly, however, in any further research, the sex of the Targets should be controlled.

Overall, the label "mentally retarded" created positive shifts on 36/40 variables, ($p < .0001$), for Target 5, who had been ranked least normal. She was judged significantly more helpful and wanting to join in, items on which positive shifts were most expected, because they are among the positive stereotypic beliefs. She was also judged significantly more attractive as a friend with less strange

facial appearance. Thus, if this were an independent labelling study, the conclusion would be that "mentally retarded" does not have a negative, but a strong positive effect.

For Target 6, who was rated 7th, on the other hand, the label "mentally retarded" produced a negative shift on 24/40 variables, which is insignificant overall ($p = .13$). She was judged significantly noisier, and the perception that she was her family's pride reversed, so that she was rated her family's shame. Within the sixteen variables on which (insignificant) positive shifts occurred, are the positive stereotypic elements, loving, helpful and well-meaning, happy, wanting to join in and chatty.

For Target 7, the subnormal Target who appeared normal, the label "mentally retarded" resulted in three significant shifts. In each case, judgements that had been positive were reversed. Hence, he was judged abnormal, unintelligent and a confused thinker, items clearly most closely associated with retardation. Overall, the label elicited 34/40 negative shifts, (there were 2 ties: $p < .0001$).

Finally, the effect of "mentally retarded" on judgements of Target 8 who was ranked fifth, was negative on 26/40 items, which just reaches significance, $p = .041$. Among these, he was rated significantly more poorly co-ordinated.

Familiarly, the items showing (insignificant) positive shifts included loving, happy, well-meaning and wanting to

join in.

In summary, results fit exactly the hypothesised model, since labelling depends largely on the ranking of each target: on the normal Target who had been perceived least normal, "normal" had the strongest positive influence. For the two middle rankers, it was also significantly positive, whereas for the high flying "supernormal" Target, it inflicted a strong negative effect.

For "mentally retarded", on the other hand, these results are mirror reversed. On the subnormal Target who had been perceived least retarded unlabelled, it had the most powerful negative effect, on the next in line, its negative effect just reached significance. For the following Target, "mentally retarded" had an insignificant impact, and finally, for the child who had been judged most subnormal and who received the most negative evaluations unlabelled, it had a significant *positive* effect.

This means that the second hypothesis has been entirely fulfilled, and Guskin's (1963) argument that too many or too few cues to subnormality weaken the impact of the label, may be reformulated: the fewer the cues, the greater the impact is likely to be. As the number of cues increases, the label provides less and less information, and *this* is why its impact wanes. Finally if there are so many cues that responses overshoot even the negativity associated with subnormal class membership, then the impact of the label is

not weakened, but *reversed*.

In conclusion, the 4 subnormal targets exemplify four excellent reasons why there is little consistency between labelling studies in the literature.

Hypothesis 3

The role of personal contact as an independent variable

In Study 1, personal acquaintance with a retardate transpired as the most potent influence on (lay) attitudes. Acquainted subjects expressed more positive beliefs and specifically rated retardates unlike. Unacquainted subjects, on the other hand, not only evaluated retardates more negatively, but also believed them to be like each other. On this basis, unacquainted subjects might be expected to show greater labelling effects.

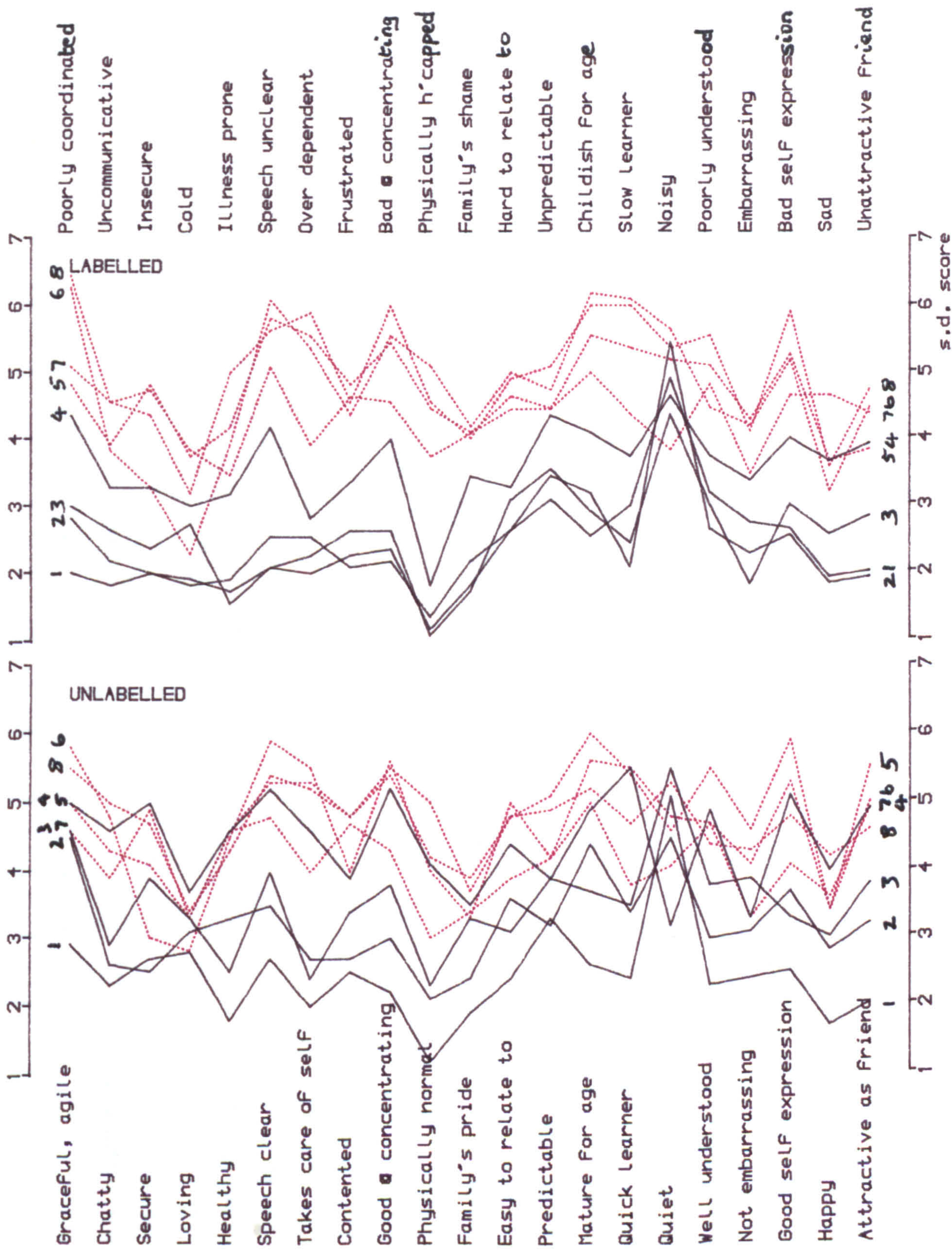
From Tajfel's point of view, labels accrue power with experience and emotional investment, and therefore, labelling effects should be greater in acquainted subjects. This prediction is complicated by evaluative differences because the influence of the label "retarded" is likely to be relatively positive for the acquainted group, and therefore, likely to elicit less increased intergroup divergence even if a "perfect" labelling effect occurs. A double complication is that subjects were psychology students and might resemble the Psychologists rather than the lay sample in Study 1, and differ little according to contact - although, because they were only weeks into their course and approximately two-thirds majored in other subjects, this hopefully was not a serious problem.

Table 33 shows mean semantic differential scores for each Target unlabelled and correctly labelled for subjects with and without personal contact. These are displayed in Figure

3.3, which conveys an enormous amount of information and is extremely complex. Nevertheless, careful scrutiny is repaid with some fascinating insights.

FIGURE 3.3 : UNACQUAINTED SUBJECTS

SEMANTIC DIFFERENTIAL PROFILES OF 8 CHILDREN -1 to 4 normal, 5 to 8 subnormal- LABELLED AND UNLABELLED



— Normal children
 Subnormal children
 -216-

FIGURE 3.3 : UNACQUAINTED SUBJECTS -Continued-

SEMANTIC DIFFERENTIAL PROFILES OF 8 CHILDREN -1 to 4 normal, 5 to 8 subnormal- LABELLED AND UNLABELLED

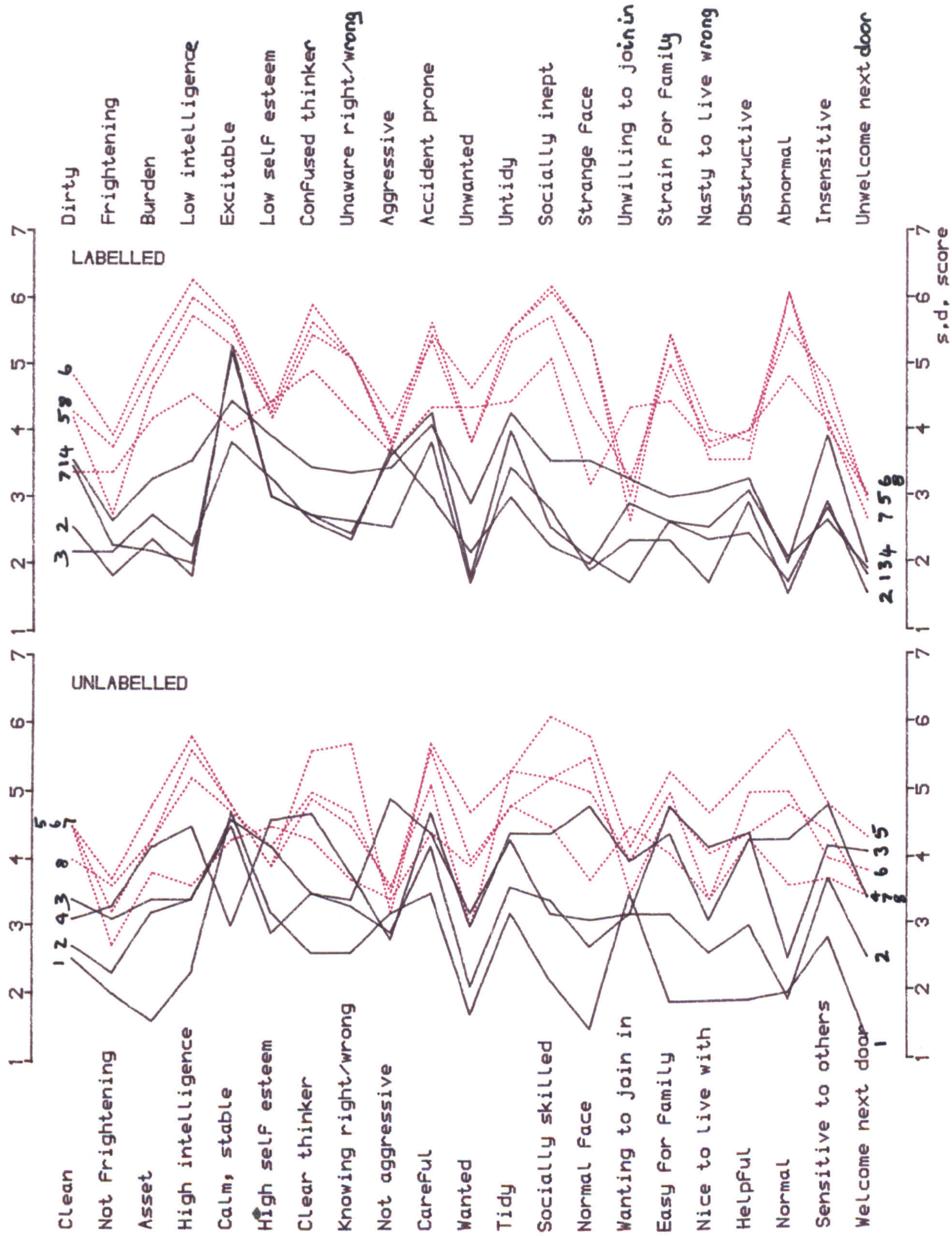
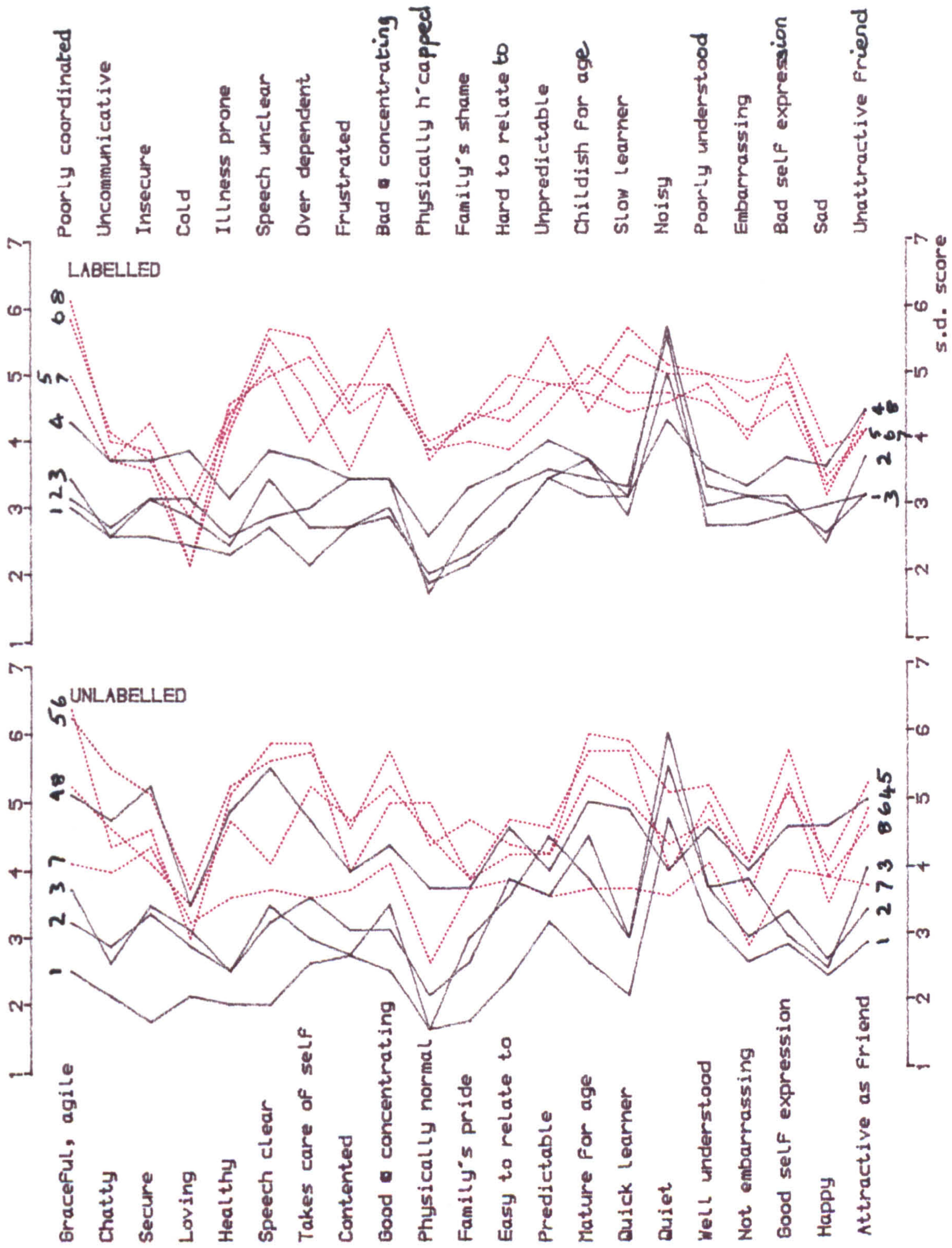


FIGURE 3.3 : ACQUAINTED SUBJECTS

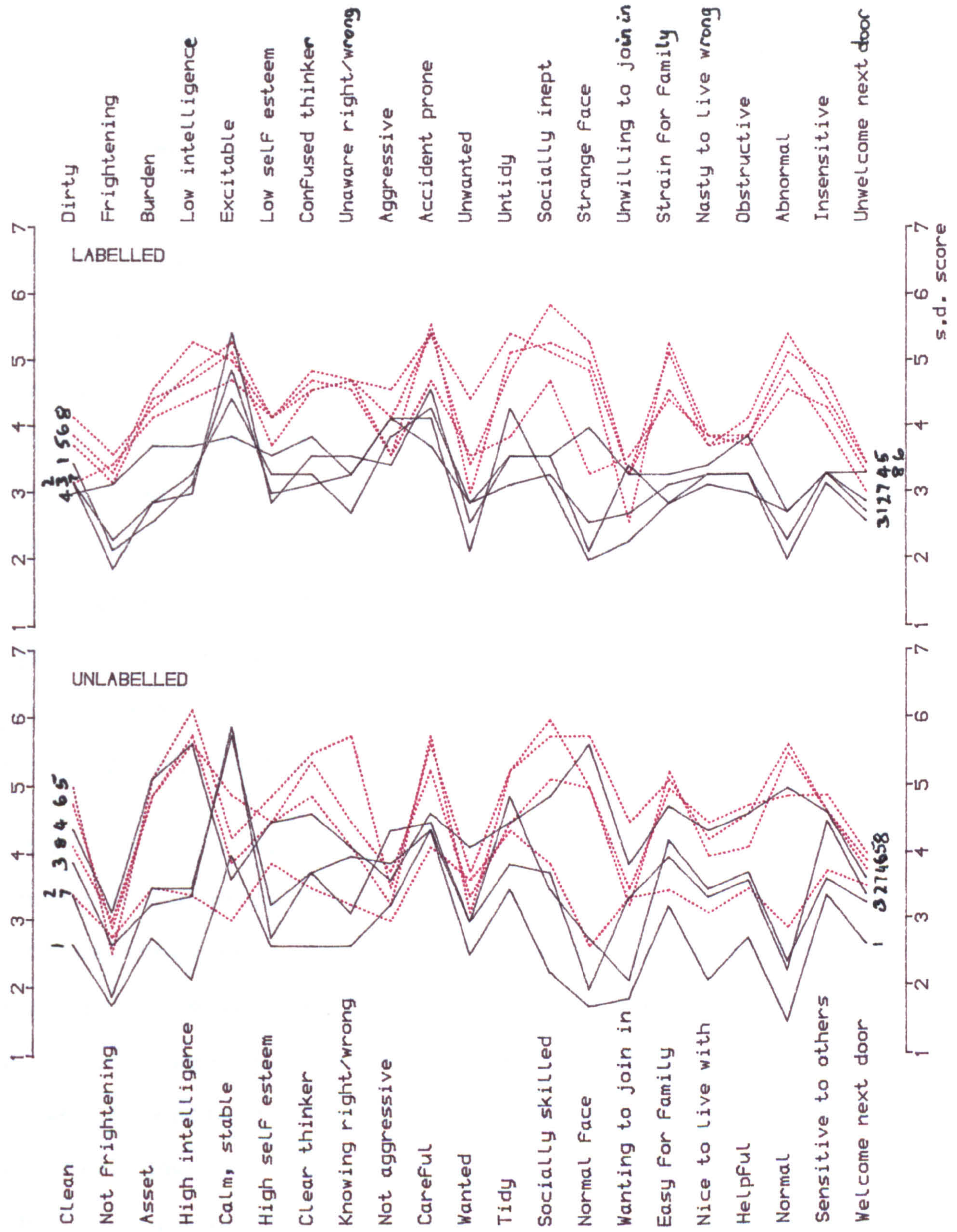
SEMANTIC DIFFERENT PROFILES OF 8 CHILDREN -1 to 4 normal, 5 to 8 subnormal- LABELLED AND UNLABELLED



— Normal children
 Subnormal children
 -218-

FIGURE 3.3 : ACQUAINTED SUBJECTS -Continued-

SEMANTIC DIFFERENT⁷ PROFILES OF 8 CHILDREN -1 to 4 normal, 5 to 8 subnormal- LABELLED AND UNLABELLED



— Normal children
 Subnormal children
 -219-

First, unacquainted subjects tend to group Targets 4,5,6,7 and 8 together in the unlabelled condition, whereas profile 7, of the subnormal boy who appeared normal, belongs if anything, to the normal class for the acquainted group. This seems to be a neat example of evaluative bias, since unacquainted subjects, who attached the greatest value differential to the normal/subnormal dichotomy in Study 1, show clear over-inclusion in the subnormal class.

In the labelled condition, profile 4, the subnormal appearing normal Target, though shifted towards the other normal children, stands clearly apart from them for the non-acquainted subjects, but seems wholeheartedly included in the normal group by subjects with personal acquaintance. Again, this illustrates greater evaluative bias in the unacquainted group who over-exclude from the normal class. Simultaneously, it suggests that acquainted subjects are more susceptible to the labels.

This has had an interesting and unexpected effect. Because unacquainted subjects have the more negative view of retardates, they were expected to show a greater enhanced intergroup difference in the labelled condition. Figure 3.3 shows a wider span between normal and subnormal Targets for them, which confirms the spirit of the prediction.

Ironically, however, because Target 4 for the most part bounds the normal group, their apparent reluctance to class her with the normal Targets seems to have prevented marked intergroup divergence compared with the acquainted subjects.

Indeed, it is impossible to see from Figure 3.3 who have shown most.

Table 3.3a gives actual intergroup differences labelled and unlabelled for the two subsets of subjects, and confirms that there is nothing to choose between them, since, acquainted and unacquainted groups show increased intergroup differences on 40 and 41/42 variables, respectively, and when the magnitude of the increases is painstakingly compared item by item, it is greater for the acquainted group on 21/42 items, exactly half. ANOVA yielded just 2 significant effects, both experience x label interactions. On "loving/cold" and "welcome/unwelcome next door" intergroup differences grew *smaller* in the labelled condition for the acquainted group which probably means that they have a more positive opinion about retarded than normal children on these items.

TABLE 3.3a

Intergroup differences according to personal experience of retardates:

	Acquainted		Not acquainted	
	lab	unlab	lab	unlab
agile/poorly coordinated	0.00	-1.25	-0.18	-1.70
chatty/uncommunicative	-1.57	-1.63	-1.09	-1.80
secure/insecure	-0.86	-2.50	-0.82	-3.50
loving/cold	-2.57	-1.75	-1.27	-3.10
healthy/illness prone	0.29	-1.38	-0.45	-2.10
speech clear/unclear	0.14	-2.38	-0.18	-1.60
takes care of self/dependent	-0.29	-1.75	0.09	-2.00
contented/frustrated	-0.71	-1.38	-0.64	-1.80
good/bad at concentrating	0.00	-1.38	0.09	-1.70
physically normal/h'capped	0.29	-1.50	1.00	-2.10
family's pride/shame	0.29	-0.63	-0.45	-1.80
easy/hard to relate to	-0.86	-1.75	-0.18	-2.00
predictable/unpredictable	-0.57	-2.00	-1.09	-2.00
mature/childish for age	-0.57	-1.88	0.27	-1.00
quick learner/slow learner	0.71	-1.38	0.45	-2.10
quiet/noisy	-2.71	-3.63	-2.82	-3.10
well/poorly understood	0.29	-1.50	-0.64	-1.70
not embarrassing/embarrassing	-0.14	-2.38	-0.45	-2.20
good/bad self expression	0.14	-1.25	-0.36	-1.40
happy/sad	-1.57	-1.63	-1.09	-2.00
attractive/unattractive	-1.00	-1.88	-1.09	-1.30
clean/dirty	-1.29	-1.75	-1.36	-1.30
not frightening/frightening	-0.86	-1.75	-1.00	-2.10
asset/burden	0.00	-1.75	0.45	-1.70
high/low intelligence	0.29	-2.25	1.00	-1.30
calm, stable/excitable	-1.71	-3.50	-2.27	-2.60
high/low self esteem	0.00	-1.00	-0.09	-1.90
clear/confused thinker	0.14	-1.88	0.27	-1.70
knowing/not knowing right	-0.14	-2.13	0.18	-1.20
not aggressive/aggressive	-1.71	-2.50	-2.36	-3.00
careful/accident prone	-0.71	-2.00	-1.00	-1.60
wanted/unwanted	-0.86	-2.75	0.27	-1.50
tidy/untidy	-0.57	-2.50	-1.45	-1.70
socially skilled/inept	0.57	-1.25	1.27	-0.80
normal/strange face	-1.57	-3.00	-1.73	-1.80
wanting/unwilling to join in	-1.86	-2.13	-2.09	-2.70
easy/strain for family	0.14	-2.13	0.36	-2.10
nice/nasty to live with	-0.71	-1.50	-0.91	-1.70
helpful/obstructive	-1.29	-1.88	-1.73	-1.80
normal/abnormal	0.71	-2.25	1.64	-1.50
sensitive/insensitive	0.00	-2.00	-1.27	-2.40
welcome/unwelcome	-0.57	-0.50	-0.27	-2.30

To summarise, the expected trend for unacquainted subjects to show increased intergroup differences to a greater degree, was not found. However, evidence from Figure 3.3

suggests that this was not because the hypothesis was in error. It is clear that in the labelled condition, unacquainted subjects show the greater general separation between normal and subnormal Targets but because of evaluative bias, the Target who for the most part, bounded the normal class, apparently has not been wholeheartedly included in it, so the general separation has not been reflected in greater enhanced intergroup differences. Clearly however, this interpretation needs further testing.

Before leaving the question of evaluative differences and personal experience, one more point must be made, which will be vitally important for the coming studies. It is possible to see on Figure 33 that the evaluations of acquainted and unacquainted subjects differ little in the unlabelled condition. This means that the relatively positive opinions that acquainted subjects show towards retardates, seem not to depend so much on their acquaintance, but on the labels.

Table 33b shows intragroup similarities for acquainted and unacquainted subjects. For the former group, labels enhanced perceived intragroup similarity on 42 and 37/42 items for normal and subnormal Targets, respectively. The relevant figures for unacquainted subjects were 40/41 (with one tie) and 33/42. Thus, labels enhance intragroup similarity slightly more for personally experienced subjects, especially where subnormal Targets are concerned. However, this crude approach reveals no real difference

between subjects, since all 4 sets of figures are highly significant. Hence, more detail is necessary.

TABLE 3.3b

Intragroup similarities for acquainted and unacquainted subjects

	Acquainted subjects				Unacquainted subjects			
	Labelled		Unlabelled		Labelled		Unlabelled	
	norm'	sub'	norm'	sub'	norm'	sub'	norm'	sub'
agile/poorly coordinated	0.72	0.73	1.15	1.03	1.02	1.09	1.31	0.91
chatty/uncommunicative	0.86	1.03	1.27	0.95	1.13	1.16	1.41	0.96
secure/insecure	0.60	0.65	1.52	1.09	0.86	1.07	1.80	1.34
loving/cold	0.87	0.72	0.91	0.83	0.73	1.19	1.51	0.82
healthy/illness prone	0.53	0.59	1.28	0.86	0.87	0.94	1.48	1.09
speech clear/unclear	0.85	0.63	1.51	1.13	1.17	0.86	1.47	0.89
takes care of self/dependent	0.65	0.92	1.23	1.08	0.75	1.19	1.48	1.28
contented/frustrated	0.71	0.91	0.92	1.06	1.05	0.84	1.07	1.13
good/bad at concentrating	0.70	0.71	1.27	0.80	0.98	0.76	1.50	0.92
physically normal/h'capped	0.55	0.55	1.22	1.29	0.35	1.26	1.33	1.42
family's pride/shame	0.56	0.53	0.90	0.71	0.85	0.74	1.25	1.06
easy/hard to relate to	0.73	0.90	1.02	0.91	0.63	0.87	1.32	1.11
predictable/unpredictable	0.55	0.82	0.85	0.88	0.99	0.85	0.86	1.45
mature/childish for age	0.43	0.98	1.23	1.04	0.83	0.69	1.29	0.79
quick learner/slow learner	0.54	0.68	1.29	0.97	0.85	0.77	1.42	1.00
quiet/noisy	0.80	1.01	1.28	1.07	1.14	1.17	1.26	1.29
well/poorly understood	0.50	0.80	1.07	0.78	0.94	0.96	1.17	1.06
not embarrassing/embarrassing	0.50	0.70	1.19	0.78	0.77	0.73	1.25	1.00
good/bad self expression	0.70	0.73	0.94	1.09	0.94	0.96	1.22	0.91
happy/sad	0.78	0.90	1.06	0.75	0.94	0.89	1.15	1.09
attractive/unattractive	0.77	0.46	1.18	0.86	0.97	0.94	1.30	0.84
clean/dirty	0.66	0.75	1.18	0.77	1.09	0.76	1.09	1.10
not frightening/frightening	0.70	0.77	0.86	0.74	0.73	0.83	1.15	1.06
asset/burden	0.50	0.49	1.11	0.93	0.67	0.72	1.31	0.94
high/low intelligence	0.44	0.65	1.43	1.25	0.91	0.75	1.18	1.03
calm, stable/excitable	0.94	0.63	1.24	1.09	1.13	0.95	1.26	1.00
high/low self esteem	0.38	0.38	0.88	0.68	0.63	0.27	1.22	0.83
clear/confused thinker	0.58	0.38	1.18	1.00	0.77	0.86	1.28	1.01
knowing/not knowing right	0.59	0.70	1.14	1.25	0.68	0.82	1.00	1.16
not aggressive/aggressive	0.64	0.72	0.97	0.65	1.00	1.15	1.17	1.11
careful/accident prone	0.85	0.53	1.02	0.90	0.95	0.82	1.07	1.02
wanted/unwanted	0.60	0.80	1.40	0.87	0.64	0.75	0.94	1.31
tidy/untidy	0.46	0.76	1.43	0.87	1.30	0.90	1.40	0.98
socially skilled/inept	0.45	0.67	1.15	0.95	0.77	0.53	1.26	0.93
normal/strange face	1.16	1.12	1.70	1.42	1.14	1.61	1.80	1.13
wanting/unwilling to join in	0.84	0.92	1.33	0.95	1.20	1.24	1.50	1.11
easy/strain for family	0.55	0.57	0.96	1.08	0.90	0.71	1.54	0.92
nice/nasty to live with	0.56	0.39	1.01	0.74	0.90	0.70	1.08	1.03
helpful/obstructive	0.61	0.73	0.97	0.80	1.05	0.96	1.34	1.10
normal/abnormal	0.74	0.61	1.47	1.46	0.89	0.62	1.59	1.05
sensitive/insensitive	0.43	0.48	0.89	0.88	0.81	1.25	1.35	0.96
welcome/unwelcome	0.30	0.42	0.52	0.47	0.38	0.67	1.43	1.04 *

Perceived intragroup differences were subjected to 3 factor ANOVA, (condition x experience x Target type, with a repeated measure on the third), and the label x acquaintance interaction, which tests whether the label had more effect for the experienced group, was significant on only one variable, "welcome/unwelcome next door" ($p = .02$). Table 3.3b shows that this was accounted for by comparatively less perceived intragroup similarity on the part of unacquainted subjects in the unlabelled condition. Interestingly, perceived intragroup similarity tended to be more enhanced for the experienced group on "high/low intelligence" ($p = .056$), but no other result neared significance.

The laborious task of comparing the overall magnitude of labelling effects on Table 3.3b for each group shows, that the overall trend was after all as predicted: labels enhanced perceived intraclass similarity more for acquainted subjects on 33/42 variables ($p < .002$ Sign Test). Thus, the lack of significance on individual items is probably due to the small numbers in each cell (as few as 7 acquainted subjects in the labelled condition), rather than inaccuracy of the hypothesis. In other words, there is some evidence that experience is associated with more marked labelling effects.

This has the serious implication that biased perception is not the result of ignorance. On the contrary, it is probably most prevalent in precisely those who "should" know better. In this sense, education per se is unlikely to be a

defense and might even prove counter productive. Foster, Ysseldyke and Reese (1975) for example, found that students towards the end of a course in special education which had included work on labelling and expectations, were significantly biased in their evaluation of a normal child when he was labelled subnormal. On a brighter note, however, the same students were stunned when presented with the results they had generated, which suggests that practical demonstrations based on the present Tajfellian approach, might one day provide an invaluable aspect of professional training.

4.5. CONCLUSIONS

This study has demonstrated empirically that the psychophysical principles underlying Tajfel and Wilkes' (1963) paradigm with its neutral stimuli, can be extended to cover the perception of normal and subnormal children, at least in an experimental situation. This added weight to the argument that Tajfellian principles provide a unifying paradigm within which literature on labelling the mentally retarded may be interpreted and apparent inconsistencies resolved. Generalisations from experimental to real life situations will be discussed more fully in the next chapter, but with the provisos that have already been mentioned, because real life is likely to be more complex and ambiguous than slides, information conveyed by labels is likely to be valuable and hence, labelling effects

prevalent. (Tajfel and Wilkes, 1963; Tajfel, 1972; 1978; 1981; 1981a).

In more general terms, this has supported the social model of mental retardation in demonstrating that the perception of retardates (and by extrapolation, their treatment and hence, aspects of their development) is not simply a function of their characteristics but a complex interplay between these, how they are labelled and the information conveyed by the label. It is in this last aspect that categorisation provides a linking mechanism with macrosystems, exosystems and the developing individual since as the previous chapter showed, beliefs about retardates, and hence, the information conveyed by the label, can be related to cultural, environmental and ideological histories of social systems.

CHAPTER 4

SOCIAL IDENTITY AND PERCEPTION: DOES THE OBSERVER'S ROLE INFLUENCE WHAT HE SEES?

1. Introduction

To recap, Study 1 revealed significant differences in the way subjects conceptualised "retardates", and mediated by the categorisation effects demonstrated in Study 2, these can lead to different perceptions and hence, to differently directed interactions which will influence the development of retarded people. However, the focus of Study 2 was on the mechanistic aspects of this pathway which was therefore psychological, but not social psychological. Some attempt at rejecting individualistic explanations in favour of a social psychological approach (see Tajfel, 1981) had been made in Chapter 2 where between group differences (and hence, within group similarities) in beliefs were attributed to conformity to shared group norms, rather than individual characteristics that members of a particular group (like psychologists) have in common, but this attempt was not explicit in Chapter 3, which virtually ignored what Brown and Turner (1981) call the "master problem" of how the individual is related to the group. The task of this chapter is to redress the balance and identify a social psychological link between beliefs about retardates at the macrosystem level and the mechanistic individual level perceptual processes which help mediate them.

The present work is underpinned by the fundamental

assumption that humans, like lay scientists, try to understand their environment in order to respond adequately and achieve some control over events (see Tajfel, 1981). Thus, the adaptive function of conceptual categories, like beliefs about retardates is to facilitate appropriate responses to the perceived environment.

Since man is self aware, however, he must constitute a focal point in the very world he tries to interpret. Thus the importance of how he categorises his environment finds an analogue in the importance of how he construes himself, which means that common factors in the self-definitions of individuals belonging to the same social system, might provide a mechanism whereby active intrapersonal psychological process rather than amalgamated interindividual differences in experience or personality, mediate effects of group membership. Put another way, self-categorisations provide a mechanism whereby individual group members can apply a mutual psychological field, reflecting macrosystem influences, in their interactions with retardates.

This is precisely one direction that Tajfel and extending his work, Turner have taken. Before describing in detail their approach, however, it seems wise to provide some appropriate background.

2. The present notion of self-concept

For present purposes, self definitions are themselves defined as the self-concept a term introduced with

trepidation because it unlocks a Pandora's box of spectral difficulties as wide as psychology itself. Conceptual problems are compounded by semantic puzzles since, as Brookover, Thomas and Paterson (1964) write, the term "self-concept" is frequently the only similarity between self-concept studies and, on the other side of the coin, the briefest taste of the literature reveals a bewildering array of different terms, all apparently referring to it.

Burns (1979), who first notes psychology's characteristically imprecise terminology and lack of agreed definitions, summarises the situation in his delightfully bombastic phrase: "Self referent constructs stand foremost in the ranks of this confusion".

Clearly therefore, some attempt to define and elucidate the present terminology must be made.

The Pocket Oxford English Dictionary defines "self" as "person's or thing's own individuality or essence, person or thing as an object of introspection or reflexive action, ones nature or state at a particular time or in a particular aspect." It defines "concept" as "Idea of the attributes common to a class of things" but ironically, it does not tackle "self-concept". Avoiding the temptation perpetually to look up words like "person" and "individuality", the dictionary is consistent with the notion of self-concept as the totality of an individual's thoughts about himself.

The present definition seems to emphasise the content of the

self-concept. However, the intention is not to take sides in the notorious philosophical controversy about subjective and objective self that has endured from the earliest psychological writings, like William James' (1890) "I" and "me" to the present, roughly reflected (for example), in Gordon and Gergen's (1968) self as process or structure. Although full discussion is beyond the present scope, common sense suggests the controversy might be a pseudo issue: as James argued, the notion of awareness without content or content without awareness is meaningless. In other words, thinking is a process which includes thinker and thoughts and it is semantic constraints that imply a division between them. In this light, it seems wise to state that the coming emphasis on what is thought, is simply an heuristic strategy, not intended to imply a fundamental dualism. The self-concept is visualised as an intricate, dynamic system, so complex that imagining it in terms of structure and process must be a crude oversimplification. Imaginary petrification of the latter aspect, however, seems necessary in order that the subject may be approached at all.

The self-concept, like other cognitive structures, is hypothesised to mediate responses to the environment. Thus, ideally, knowledge of an individual's self-concept should permit explanation and prediction of his behaviour. Not surprisingly therefore, self-concept is frequently viewed as an aspect of personality - another difficult term for which there appears no agreed definition but which Perlin

describes as:

those structural dynamic properties of an individual or individuals as they reflect themselves in characteristic responses to situations.

1975, p.3

Since the self-concept is defined as the individual's beliefs about himself, it must include his mini personality theory about himself. Thus any topic in personality research might be mirrored microcosmically in the self-concept and the simple "top down" relationship between personality and self-concept becomes an unfathomable, self-referential circle which gives a frightening taste of the complexities involved in the area.

Nevertheless, intuitively it seems that the focus of interest differs in personality and self-concept research in a way that makes an interesting -if subjective- link to the present framework. Personality theory seems predicated on "objective reality". Theorists seem to seek what people "really" are, through, for example, the dark instinctive forces of Freudian psychodynamics, or through trait theories (e.g. Allport, 1955; Cattell, 1950), Sheldon and Stevens' (1942) body types, Skinner's (1938) behaviourist and Bandura's (1965) social learning theories and many more. The assumption seems to be that the role of the individual is essentially passive. He provides data that conceal the personality he is hypothesised consistently to enact. In contrast, self-concept research is phenomenological: what the individual thinks he is is the focus of interest, and

the question, what he "really" is, is unimportant. In other words, the individual's personality theory about himself is of more interest than that of the experimenters!

An example illustrates the point:-

Some theorists like Eysenck (1973) would probably argue that IQ is a personality characteristic reflected reliably across situations. Brookover, Thomas and Paterson (1964) however, found that self-concept of ability was significantly related to achievement even when intelligence was controlled. In other words, what subjects believed, not "real" intelligence accounted for variation. Intuitively therefore, personality research seems predicated on an interactional and self-concept research, a transactional paradigm. More specifically, the self-concept provides a mechanism whereby an individual can determine and be determined by his own behaviour, independent of his "stable personality characteristics." Hence, it is a fitting a starting point for the notion that self definitions rather than "objective" individual differences account for between group variation in beliefs about retardates.

So far, the present notion of self-concept has been defined, but its hypothetical organisation has not been considered. Taxonomical representations seem almost as numerous as

writers on the subject. James (1910) for example, visualises the self as known as having 3 constituent parts, each of which gives rise to emotions and actions. First, the material self includes body, family, home and possessions and gives rise to feelings of satisfaction or dissatisfaction. Associated acts are attention to bodily needs and acquisition of property and goods. The second constituent is the social self, by which James means knowledge of the recognition received from others or groups of others. Thus, an individual has as many social selves as there are people or groups who recognise him and about whose opinions he cares. As before, these give rise to emotions of satisfaction or dissatisfaction. Associated behaviours include sociability, emulation, the pursuit of friends, social ambition and so on. Finally, James postulates a spiritual self - the individual's knowledge of his psychological faculties and states. This he argues is the "nucleus of ourself as we know it". As an object of thought, it evokes emotions in the same way as the other constituents, and associated actions include all attempts at psychic (i.e. moral or intellectual) enlightenment.

In contrast to the emotions evoked by the constituents, James argues that some aspects of self-feeling seem independent. For example, the individual has a choice as to which aspects of self are "backed". Thus self-esteem is the ratio between success and pretensions, and therefore, within each individual's power.

James continues that bodily comforts are easy to part with, compared with friends, but that the spiritual self is valued above life itself. This implies, he argues, a hierarchical organisation. Beyond this, however, he gives little indication of how the constituents relate to each other, or the "I" that is embedded in them.

Allport (1955) coins a new word, *proprium* to represent what the individual construes as pertaining to himself. This he visualises as eight aspects, briefly, (1) a bodily sense, or what the individual perceives to belong intimately to his body, (2) a self-identity or perceived continuity over time, (3) ego enhancement or self love, (4) ego extension, or the identification of self with possessions, groups or even abstract ideals, (5) rational processes which mediate between inner needs and outer reality (6) self-image or what the individual thinks he is and what he would like to be, (7) appropriate striving or motivation towards self actualisation and (8) the knower, which unlike James' "I" is not an aspect of what is known, but the distinct entity that experiences it.

In this case, there is no information at all concerning the *proprium's* internal organisation.

Although fascinating, these classical approaches are of little help in the present effort to formulate some idea of how the self-concept might be organised. They seem to be outcomes of inductive armchair reasoning, neither based on, nor offering empirical guidelines. Indeed, as Brim (1976)

writes, the insights they provide "lie around like a pile of loose bricks in the brickyard waiting for the builder."

Burns' (1979) notion of self-concept is also largely taxonomical, but, in addition, he suggests a useful organising principle. Both agreement and disagreement with his approach help build the present notions. He envisages a hierarchical structure, headed by the "global self", a term too wide, he argues, to be valuable. This bifurcates into "I" and "me", and the latter further splits into self-image and self-esteem. From both of these aspects, the self-concept descends.

This differs from the present view which sees "I" and "me" as facets of the self-concept, which in including all self referent thoughts, of course, also encompasses notions of self-image and esteem. Apart from this difference, with the best will, Burns' formulation simply does not seem clear:- Self as known appears twice - both above and below self-concept. Furthermore, Burns describes self-evaluation as a process, which seems to contradict its appearance under "me" (which represents structure) in his diagrammatic scheme. Most problematic, however, the text describes nothing beyond this initial and puzzling bifurcation. For these reasons, Burns' structural notion of the self-concept will be left in favour of his more useful hypothesis that it can be viewed as a constellation of attitudes to the self. This viewpoint not only links self-concept study with the vast literature on the nature and measurement of attitudes,

(including, what will be useful later, semantic differential techniques), but also, it provides an embracing organising principle.

Definitions of attitude are many, but for once, relatively similar. The broadest noted by Summers (1971) is the sum total of inclinations, beliefs and feelings about a topic, which, when the topic is self, is virtually synonymous with the present definition of self-concept. More detailed definitions seem to have descended from that of Katz and Stotland (1959) who distinguish (1) cognitive, (2) emotional and (3) conative aspects. These correspond to (1) beliefs about an object, which according to Katz and Stotland are evaluated, although other writers like Thomas (1970), prefer to include evaluation in the emotional aspect, while still others, including Burns, view it as a separate fourth element. Nevertheless, all agree that evaluation is an important attitudinal component. (2) The emotional aspect refers to how the individual feels about the object and therefore, in contrast to the evaluative component, belongs to him rather than it - a distinction which becomes complex, but as will be seen, useful, when "it" is the self. (3) The conative component refers to a response tendency embedded in the attitude, (although this might have no behavioural counterpart).

Burns finds two great advantages in conceptualising the self-concept in this way. First, it does not imply a sterile, single entity, but a differentiated system and

second, self-esteem can be visualised as the evaluative attitudinal component. (However, since Burns' diagram separated self-esteem from the self-concept, his idea seems more at home in the present formulation than in his own!)

More serious contention arises when Burns continues, without explicit justification, that conceptualising the self-concept as a set of attitudes, means that a positive self-concept can be equated with positive self-esteem and therefore, that "self-concept", "self attitudes" and "self-esteem" can be regarded as synonymous.

According to Summers (1971), a number of theorists have argued that the notion of attitude should be restricted to the evaluative dimension, and presumably, this has influenced Burns' thinking. However, even though Burns notes that Wylie (1961) and as great a figure as Coopersmith (1967) also use self-concept and self-esteem interchangeably, his position is not supported here, for the obvious reason that it ignores cognitive, emotional and conative aspects.

For practical purposes, this contention may have little or no use since Osgood et al (1957), it will be remembered, found evaluation accounted for up to 75% of attitudinal variance *but* "up to" are crucial words. In their famous Thesaurus study, Osgood et al found 7 dimensions in addition to evaluation, which in this case accounted for only 18% of variance. This means that, all things being equal,

self-esteem might be the best unidimensional representation of self-concept, but it might omit as much as 82% of its content.

Burns' approach also ignores the emotional attitudinal dimension, which I think can be interpreted as self worth, but which he describes as "nebulous" and "more within the ambit of the self as knower", whom, it will be remembered, was banished from his formulation of self-concept. Unlike the evaluative aspect, this pertains to the individual rather than his beliefs, and therefore, might be linked to James' notion of a more independent source of self-esteem. For example, while it is likely an individual whose self-concept includes the knowledge that he is successful, attractive and admired by others, will have the positive self regard implied by such beliefs, this is not inevitable.

On the other side of the coin, equating self-concept and self-esteem leaves many researchers pondering why people can know they are black or retarded and yet not show cringeing levels of self regard - an important point which will be more fully aired in the next chapter.

Although it is difficult to visualise, the idiosyncratic life force of the knower seems to be embodied in the emotional attitudinal dimension. To adapt a cliché, he breathes the self into self-concept.

Finally, equating self-concept with the evaluative attitudinal component also ignores the conative aspect,

which after all, is the major *raison d'etre* of the self-concept as a hypothetical variable intervening between stimulus and behaviour.

To end, visualising the self-concept as a constellation of attitudes, is not the only alternative to the classic taxonomic approaches. For example, Brim (1976) argues that it may be visualised as a theory of self, with components corresponding to basic premises and hidden assumptions, used as a basis for predictions and explanations. However, although fascinating, this is of little practical value for present purposes. A constellation of attitudes, on the other hand, may be measured using well tried techniques, and in addition, it offers a way of conceptualising beliefs, self-worth and self-esteem.

3. Social categorisation and social and personal identity

In the previous chapter, "social categorisation" or the "division of the social world into distinct, discontinuous classes" (Tajfel, 1972) was the central aspect of how individuals construe the environment. "Social identity" or

the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of the group membership

Tajfel, 1972, p. 31

is the correspondingly central aspect of how he construes himself. According to the previous definition, "social identity" must constitute an aspect of self-concept.

Recently, Tajfel's terminology has been extended by Turner, (1981; 1981a; 1982), who (echoing the process/structure dichotomy) uses "social identification" to refer to the process of self location within a system of social categories or as a noun, as any social categorisation used by an individual in self definition. The sum total of social identifications in this latter, structural sense, he defines as the individual's "social identity". "Personal identity", Turner implies, is what remains: self-definitions that are not group memberships.

As an aside, it is interesting to note that any characteristic within personal identity is potentially a social identification, the transition occurring if it facilitates extrapolation "beyond the information given". A nice example which seems presently to be trapped in this

process is the attribute blonde hair, which may be used in order to transmute women into Blondes, to facilitate sexist inferences regarding libido, morality and intelligence!

Interestingly, Turner's idea of social identity as a distinguishable part of the self-concept, though perhaps new in terminology, can be detected in the earliest psychological writings. For example, before William James, who has been described as the first psychologist to deal with the self-concept, (Burns 1979), theories of self had been almost exclusively the domain of theologians, philosophers and phrenologists, some of whom, incidentally, claimed to have isolated such organs as "self-esteem". (See Viney, 1969). James (1890) it will be remembered, suggested that objective self comprises spiritual, material, bodily and as many *social* selves as there are people and groups about whom individuals care.

James went on to add that these social selves may sometimes conflict with each other, which implies that they must to some extent function independently. This completes the analogy with Turner's social identity by anticipating his argument that while the self-concept is relatively stable and enduring in its entirety, (which provides individuals with their sense of unity and consistency), its structurally differentiated parts can function relatively independently.

In his own words:

in any given situation, a different part or combination of parts of the self-concept could be at work with the subjective consequence that different self images are produced.

More specifically:

social identity may on occasions function to the more or less exclusion of personal identity, i.e. that at certain times, our salient self-images may be based solely or primarily on our group memberships.

1981a, p 97

The literature abounds with empirical evidence that the individual's perceptions of self are more influenced by social identity in some situations than others, (see Turner, 1981a, p 98 for examples) but the proposition is given weight by its great explanatory power. For example, Turner points out that distinguishing between the self-concept as a cognitive structure and the self-images associated with its aspects, can solve the longstanding controversy whether the self-concept is cross situationally consistent or situation-specific (Gergen, 1971; Mischel, 1976), which had sprung from contradictory findings like the stability of subjects' self descriptions over time (Mischel, 1976) versus variations in self-descriptions according to social environment (Block, 1952). Within Turner's framework, the former might reflect personal or social identity, or even a specific social identification reliably elicited by the same testing situation, and the latter, various social identifications triggered by different environments.

Of more interest and relevance here are the hypothesised function and ultimately the results of these changes in self-image. These are fundamental to the present approach, and form the theoretical basis of the remaining studies. In

Turner's words:

people have learnt to regulate their social behaviour in terms of different self-conceptions in different situations. Different situations tend to "switch on" different conceptions of self so that social stimuli are construed and social behaviour controlled in the appropriately adaptive manner.

1981a, p 98

In other words, the subsystems of the self-concept - personal and social identity - function like other cognitive structures to facilitate understanding of and adequate responding to the environment.

In 1981, Turner wrote

social identity seems to be switched on by certain situations in ways that we do not yet understand

1981a, p 99

Fortunately, however some recent progress has been made in tackling this problem, (e.g. Tajfel, 1981; Oakes 1983).

The fundamental principle derives from Tajfel's (1972) description of categorisation and is therefore already familiar: since cognitive categories function to simplify the environment for purposes of action, it may be assumed that individuals define themselves in terms of social rather than personal identifications when these mediate more effectively between perceived environment and adaptive behaviour. Tajfel (1981) details three such conditions: (1) when self-definitions in terms of social identifications facilitate understanding of a complex situation; (2) when they justify actions, which are usually directed against an outgroup, or (3) when they provide the individual with an

opportunity to enhance self-esteem. (See also Brown and Turner, 1981).

4. Social and personal identity and behaviour

Turner continues that the two extremes, personal and social identity are likely to underpin interpersonal and intergroup behaviour. These are best understood in terms of a theoretical continuum postulated by Tajfel (1974), that conceptualises interpersonal behaviour as interaction between individuals *entirely* determined by individual characteristics, and intergroup behaviour as interaction between individuals (or groups of individuals) *entirely* determined by respective group memberships. (See also Turner and Giles, 1981; Tajfel and Turner, 1979). Tajfel forewarned that the continuum is theoretical and that pure instances of each extreme are unlikely in real life, although examples approaching pure intergroup behaviour are relatively easy to find, like - at the time of writing - British and Argentine forces battling with each other on the Falkland Islands, uninfluenced by the fact that some of them trained together in Portsmouth and might have formed personal relationships. According to Turner, this situationally appropriate intergroup behaviour is regulated through the relevant aspects of self-concept, that is protagonists' self perceptions as British and Argentine soldiers.

Clinical situations provide a less extreme, but perhaps more relevant example, since it is well known that clinicians interact with "cases" and "retardates", not people. Indeed, those who fail in this respect often provide valuable

currency for more sensational reporting!

The greater difficulty of finding examples approaching pure interpersonal behaviour is reflected in the hackneyed cinema device of providing heroes with temporary respite from intergroup behaviour in interactions with blind hermits or innocent infants. Only those cut off from the relevant cues or as yet unsocialised it seems, are able to respond as individuals. According to Turner, such interactions are likely to be underpinned (primarily) by personal identity, but even here, social identifications like age, sex and so on clearly influence behaviour to some extent.

Although Turner's proposition is as yet in its infancy, empirical support for the link between personal identity and interpersonal behaviour and between social identity and intergroup behaviour is not sparse (see Turner 1981a, pp 99), but perhaps the most convincing, derives from the so called minimal group experiments. The seminal paradigm was developed by Tajfel (1970) and Tajfel, Flament, Billig and Bundy (1971) who found that social categorisation per se was sufficient to cause intergroup behaviour. Subjects were randomly assigned to one of two groups - ostensibly on the basis of artistic preference - and were asked to carry out an unrelated task, namely awarding money to anonymous in- and outgroup members. Despite the fact that there was no interaction, membership was anonymous and personal gain impossible (hence the title, "minimal group"), subjects

discriminated for in- and against outgroup members. In other words, the mere perception of belonging to a group (i.e. social identification) was sufficient as well as necessary for intergroup behaviour.

Although thought provoking, these original studies do not illustrate any change in behaviour as self-image *shifts* from personal to social identity. This can be seen in a later minimal group experiment (Turner 1973, reported in his 1975 article), where subjects again distributed money to anonymous in and out group members and, in addition, to themselves. In the latter case they took the opportunity to discriminate for self and against everyone else. In a condition where social identity was salient, however, they were altruistic towards ingroup members and still more discriminatory against the outgroup. In other words, salience of social identification transformed interpersonal into intergroup discrimination as subjects acted as members of a group, not individuals, (see also Turner, 1978 and Brown and Deschamps, 1980/81 for replications).

More support is given by common experience: introspection, for example, reveals that individuals adapt without conscious effort to different situations, switching for instance, from clinician or teacher to "individual" without apparent contradiction or sense of discontinuity. Again, according to Turner, such changes are predicated on changes in self-image according to the situational relevance of various social and personal identifications.

Consciousness of these processes seems to arise when conflicting identifications are simultaneously triggered. Indeed the resulting consternation forms the mainstay of many comedies.

Social identifications can be stable or transient or even as yet "unoccupied", in the sense that individuals hold information about social categories with which they are never likely to identify, but which can become functional, should a situation arise which makes them relevant. Such an explanation might underlie Zimbardo's (1973) shocking study of naive subjects in an experimental prison who instantly behaved as punitive "correction officers" or victimised prisoners to such an extent that the experiment had to be abandoned. Particularly interesting was their subsequent disbelief in their own actions, which presumably was because they were inconsistent with customary social identifications or personal identity.

Although such metaphysical speculation is far beyond the present scope, it is interesting to wonder if the influence of personal identity or some socially approved social identification contributes to a "conscience".

Similarities might be found with Milgram's (1965) still more notorious study, where in contradiction to psychiatrists' predicted .0125%, some 62% of subjects administered what they thought might be fatal 450 volt shocks to pupils in a learning experiment. The falling off of compliance as

contact with the pupil-victim increased can be interpreted as due to the waxing relevance of personal identity and hence, the waning of the social identification that prescribed the behaviour. However, since obedience was heavily dependent on the experimenter's presence and subjects' were evidently reluctant to comply, the experimentally imposed social identification could not have been internalised and other factors must also have been involved. For this reason, resemblances will not be further expanded.

It is also interesting to contrast this view of (negative) intergroup behaviour with Zimbardo's (1969) concept "deindividualisation", which grew from his argument that individuals are most likely to behave antisocially under conditions of anonymity and alienation, that is to say, when their sense of identity is lost. The important point is, that unlike Zimbardo's and older traditional theories such as Le Bon's (1896) analysis of crowd behaviour or Dollard et al's (1939) frustration-aggression hypothesis, Turner's social identity theory argues that anti-social (intergroup) behaviour is not characterised by a loss of self and rationality, with the locus of control subsequently shifting to volatile and primitive "instincts". On the contrary, it depends on a change in the individual's self definition, mediated by a cognitive act of self-categorisation. Hence, idiosyncratic self-images based on personal identity are supplanted by a shared social identification, or

depersonalised self-image which prescribes the same course of behaviour for all ingroup members.

5. Social and personal identity and the self-concept

Social identity corresponds precisely, Turner continues, to the first of two major subsystems of the self-concept as cognitive structure uncovered empirically by Gordon (1968) and formally described by Gergen (1971) as "terms that denote one's membership in various formal and informal social groups." Similarly, Turner "defines" and "equates" personal identity with Gordon's second class of self descriptions which were more formally described as terms "that are more personal in nature and that usually denote specific attributes of the individual." (Gergen, 1971, p.62). Thus Turner's notion of social and personal identity rests on a direct empirical as well as a convincing theoretical basis.

Although the point may seem pedantic, it seems important to remember that Turner visualises social and personal identity as cognitive structures, whereas Gergen refers to actual self reports. The former are clearly hypothesised to underpin the latter, and therefore should not be equated with them.

This proviso does not seem to go far enough because the notion of personal identity in particular, remains confusing. Turner's definition essentially boils down to (the cognitive structure underlying) whatever self-descriptions an individual uses that are not social identifications, such as traits, tastes, concerns, bodily attributes, idiosyncratic styles of thought and relating to

others, feelings and any other specific attribute, (i.e. Gordon and Gergen's second class of self-descriptions). This equation, however, (which Turner now thinks over hasty) tends to give the false impression that the difference between personal and social identity is primarily linguistic - terms like "I am optimistic" reflecting the former and "I am an optimist", the latter. This is serious because, although the expression of a functioning social identity in terms of a self description *could* be a single group membership, it is more likely a list of attributes coloured by the membership would be given. These of course would fall into Gergen's second class of self-descriptions and hence, be wrongly equated with personal identity. Indeed, in this sense, there might be a "personal identity" for each social identification, which is not easy to visualise because, as Bem and Allen (1974) point out, trait words encourage thinking in terms of underlying consistencies, but commonsense and experience suggest that different, even conflicting characteristics are selected as self descriptions in different situations. On the other hand, it seems reasonable (but not necessary) to assume that such descriptions are relatively consistent within themselves because of cognitive consistency (Festinger, 1957) and implicit personality theory (Passini and Norman, 1966). Indeed, it is interesting to speculate, for example, that a specific "good subject" social identification is often elicited by experimental artefacts, and that *this* accounts for a consistent constellation of personal descriptors, when

it is found.

Conversely, a personalised self-image might even be expressed through an idiosyncratic list of social identifications.

Clearly, Turner does not intend a superficial linguistic but a fundamental cognitive distinction, according to whether the source of an individual's current self-image is primarily located in a group membership or not. To borrow an analogy from psycholinguistics, personal or social identity do not refer to the cognitive structures underpinning different classes of self-descriptors, so much as to prelinguistic "deep-structures" that need not necessarily map directly onto verbal reports.

To summarise, this rather pedantic and arduous diversion seemed necessary because on close consideration a number of nagging inconsistencies appeared in Turner's (1981a) brief exposition of personal identity (which was peripheral to his purpose and therefore only cursorily examined.) Probably the easiest solution would be to distance the association with Gergen (1971) and Gordon's (1968) research so that the straight forward notion of personal and social identity as psychological states need not be blurred by assuming a direct link in how they might be expressed in actual self descriptions.

6. Categorisation, social identity and beliefs about retardates

It is now possible to use Turner's extension of Tajfel's social identity theory as a social psychological pathway whereby membership of social groups like psychologists or various lay communities can determine beliefs and hence, the perceptions and behaviour of individual members towards retardates. The key has been implicit throughout, and has grown so obvious that to state it explicitly seems something of an anti-climax. If the function of a salient social identity is to guide behaviour in a situationally appropriate manner, then it is clear that individuals who share a particular social identity (i.e. perceive themselves as members of the same social group) are likely to respond in the same way in a situation that enhances its relevance. In other words, functioning social identity produces conformity in group members. To give a specific example, doctors in a clinical setting are likely to apply the same conceptual framework to and hence, to act in the same, clinically appropriate manner to a retardate, but if the same doctors met the same retardate in another situation, say a children's party (where self-images, and hence behavioural control are based on personal identity) a spectrum of individual responses is likely.

Turner (1981; 1981a; 1982; Tajfel and Turner, 1979) delineate two processes through which social identity enhances characteristically uniform intergroup behaviour. The first, which will be discussed more fully in the following chapter,

concerns the motivational effects - specifically the desire for positive self-esteem - that seem always to characterise self-descriptions and that are hypothesised to determine the evaluative direction intergroup behaviour takes. The second, by now, should be self evident. To give a plainer clue, conformity might be rephrased as "enhanced intragroup similarity". In other words, the automatic perceptual effects of social categorisation - stereotyping - apply to self and ingroup as well as outgroup. According to Tajfel's (1972) categorisation theory, it will be remembered, criterial attributes, that is characteristics that are perceived to correlate with membership of a social group, are inferred by an induction process from example group members and then attributed to all group members, including self, by a process of deduction, so that the original fuzzy continuous, but correlated distribution of characteristics becomes a sharply discontinuous property of the category. Thus perceived similarities between ingroup members, including self, on any attribute associated with group membership will be exaggerated. In short, or in a nutshell, as Turner puts it, stereotypic perception results directly from a functioning social identity. This means that in situations of salient social identity, self and ingroup members become perceptually interchangeable because all are perceived in terms of common group characteristics - as group members - not individuals. At the same time, perceived intergroup dissimilarity and intragroup similarity are also exaggerated, and consequently, conformity will be

directly and indirectly enhanced.

To recap on the most immediately relevant point, if group members assign themselves the same criterial characteristics including motives, emotions and normative expectations in addition to the traits more usually associated with stereotyping, consensus in their beliefs about retardates and hence, in their perceptions and reactions will result. Furthermore enhanced perceived similarity within in- and outgroups is likely indirectly to increase conformity of social interactions. Put another way, functioning social identity is a vehicle for macrosystem influences.

Although there is much about self-categorisation and social identity related behavioural conformity still to discuss, this will be deferred until the next chapter because the notion of self-definitions resulting in conformity of action and opinion towards an outgroup is precisely what this chapter set out to explore.

7. STUDY 3

Normative expectations about retardates or "social identity associated demand characteristics"?

7.1 Introduction

The notion that subjects' self-definitions as members of various social groups, rather than summed individual differences account for variations in beliefs about retardates between groups, can now be approached: it is hypothesised that beliefs are mediated through shared social- rather than individual personal- identifications. In other words, beliefs reflect norms appropriate to social identifications rather than idiosyncratic beliefs and experience.

To put this into hypothesis form, its resemblance to a situation of experimental artefact may be exploited. Quite simply, it is hypothesised that characteristic beliefs that members of different groups hold about retardates are shaped by "demand characteristics" associated with social identifications rather than by real individual differences underpinning group memberships. In this context, Orne's definition of demand characteristics:

the cues which govern his (the individual's)
perception - which communicate what is expected of
him and what the experimenter hopes to find
1969, p 146

is used in a special sense to refer to normative expectations associated with various social groups within our culture. Clearly, in this sense they represent elements of the macrosystem, and in the sense that individuals will

conform to them, should they define themselves in terms of these groups, they also represent the basic material underlining Turner's self-stereotyping.

Kruglansky (1975) and Orne (1962, 1969) outline two relevant strategies to test for demand characteristics. The first examines directly whether they account for an experimental outcome by keeping them constant and eliminating the treatment. This may be achieved by a) a non-experiment, in which the paradigm is described in detail to participants who predict how they would behave as subjects or b) a simulated experiment in which participants are not given treatments, but are asked to simulate the performance of real subjects. In either case, experimental treatments clearly cannot mediate results. Thus, if these resemble the typical experimental outcome, it is likely - not proven - that demand characteristics account for results in the original paradigm. If, on the other hand, there is no resemblance to the typical experimental result, demand characteristics are unlikely to have played a material role.

The second strategy is to treat the supposed source of demand characteristics as an independent variable which can then be varied orthogonally with treatment variables. This method unconfounds their influences and shows whether the typical experimental outcome depends on the demand characteristics or the treatments alone or some interaction between them.

This experiment rests on the first strategy, (although in a subsidiary aspect, an attempt will be made to adapt the second), in order see whether between group differences in the meaning of "retardates" might be attributed to normative expectations associated with various social identifications.

In a repeated measures design, subjects will be asked to predict responses for

1. a doctor
2. somebody personally acquainted with a retarded person
3. a teacher

The hypothesis will be supported if predictions vary in a way that resembles responses of actual doctors, acquainted subjects and teachers.

7.2 METHOD

Subjects

Eighteen males and twelve females aged 18 to 25 from a stage management and theatrical design course at Bristol Old Vic Theatre School,¹ eight of whom said they knew a retarded person.

Apparatus

A 46 item semantic differential (Appendix 4.1), derived from the original 81 item measure by:-

1. eliminating or combining items that correlated highly with others
2. omitting a small number of descriptive items on which there was massive consensus and which therefore would neither convey additional information, nor be sensitive to differences between groups, and
3. adding items 15 & 46 from the original pilot which seemed relevant to "teacher" but which had not been given frequently enough to warrant inclusion in the item pool (see Appendix 2.1).

Items were in random order with positive and negative poles counterbalanced. Two versions (one the reverse order of the other) were employed so that any effect of item order on judgements could be examined.

Procedure

Testing comprised a single session, during which subjects completed booklets of 4 semantic differentials, headed "a

¹ Thanks are due to John Telfer for arranging access and Chris Denys, the Principal for his permission.

doctor would probably think retardates are....", similarly, "a teacher would..." and "someone personally acquainted with a retarded person would..." which were presented in random order. ("Doctor" was chosen, although "psychologist" would have been more comparable with Study 1, because informal preliminaries showed many lay subjects were unsure exactly what a psychologist was.) Finally, they completed the the fourth giving their own beliefs, and indicating their age, sex and whether they knew any retarded people. Instructions were taken from Osgood et al (1957), as usual. (See Appendix 2.3).

7.3 RESULTS

ANOVA revealed no significant order effects, so data from the two versions of the questionnaire were combined during the following analyses, examples of and justifications for which are given in Appendix 4.2.

Table 4.1 gives mean predicted scores on each semantic differential item for the three social identifications and shows that "someone personally acquainted with a retarded person" was associated with the most positive evaluation on 45/46 items, "doctor" on 1/46 (item 8) and "teacher" on 0/46. Conversely, "someone personally acquainted with a retarded person" was associated with the most negative evaluation on one item, (No. 8), "doctor" on three, (Nos. 7, 10 and 41) and "teacher" on forty-one (with one tie).

A three factor ANOVA was computed for the prediction data, with 2 between (actual acquaintance and sex), and one within subject factor with three levels (the three social identifications), using BMDP 2V (N.B. which abbreviates $p > .0001$ to 0). Probabilities are included on Table 4.1 where predictions differed significantly.

Predicted social identification had 42 significant main effects. In each case "someone personally acquainted with a retarded person" was associated with the most positive evaluation. Conversely, in all but two cases (one of these being a tie) "teacher" was associated with the most negative.

TABLE 4.1**Mean predicted semantic differential scores for the three social identifications**

item	"doctor"	"acq'ted"	"teacher"	p
1	6.20	4.90	6.20	0
2	4.37	2.97	4.60	.01
3	5.03	4.23	6.00	.0005
4	2.53	1.83	3.50	0
5	4.93	3.83	5.26	.01
6	5.80	4.83	6.13	.002
7	5.97	4.77	5.53	.03
8	4.63	4.83	4.80	
9	5.60	4.87	6.40	.0004
10	4.40	3.83	4.30	
11	4.37	3.43	5.27	0
12	5.33	3.20	5.73	0
13	4.83	4.53	5.67	
14	6.30	5.43	6.43	.0007
15	6.07	4.30	6.33	0
16	3.57	2.23	4.57	.0005
17	2.90	2.73	3.57	
18	4.83	3.77	5.63	0
19	5.53	4.40	5.73	.0005
20	4.00	2.93	4.33	.03
21	4.90	3.20	5.60	0
22	4.10	2.60	4.60	0
23	3.10	2.17	4.63	0
24	5.37	4.33	5.40	.03
25	5.30	3.70	5.70	0
26	5.53	4.10	6.10	0
27	3.77	2.57	4.73	0
28	5.97	5.57	6.07	.03
29	4.83	3.90	4.93	.003
30	5.40	4.73	6.37	0
31	4.30	3.13	5.37	0
32	4.43	3.23	4.97	.0002
33	5.57	5.13	5.67	.03
34	4.47	2.67	5.17	.0001
35	4.63	2.60	4.80	0
36	4.23	3.13	4.83	0
37	5.70	4.23	6.00	0
38	4.47	3.70	4.73	.01
39	2.90	2.10	3.73	.003
40	5.27	4.70	5.63	.02
41	6.77	5.27	6.33	0
42	4.60	3.43	5.07	0
43	3.70	2.97	5.37	0
44	5.83	4.10	5.97	0
45	3.93	2.33	5.23	0
46	5.37	4.03	6.53	.0001

Table 4.2 shows mean scores by actual personal acquaintance which, ANOVA showed, had only one significant main effect (item 29), although there were two significant interactions in which acquainted subjects predicted less negative responses for "someone personally acquainted with a retarded person" on items 18 and 31 ($p = .02$ and $.03$, respectively.) Averaged across predictions, the effect of contact was exactly at chance level. However, compared with unacquainted subjects, those who knew a retarded person predicted relatively positive responses on 33/46 items for doctors and negative on 39/46 for teachers. Interestingly, on "someone personally acquainted with a retarded person" the effect of real contact was EXACTLY at chance level.

Since gender effects were neither significant nor of present relevance, they will not be presented.

TABLE 4.2
The effects of actual personal acquaintance on predictions

Item	"DOCTOR"		"ACQUAINTED"		(p)	"TEACHER"	
	yes	no	yes	no		yes	no
1	6.25	6.18	5.00	4.86		6.25	6.18
2	3.38	4.73	3.00	2.95		4.63	4.59
3	4.88	5.09	4.25	4.23		6.00	6.00
4	2.13	2.68	1.75	1.86		4.13	3.27
5	5.00	4.91	4.63	3.55		6.25	4.91
6	5.75	5.82	4.88	4.82		6.25	6.09
7	5.88	6.00	4.75	4.77		5.50	5.55
8	3.38	5.09	5.00	4.77		3.88	5.14
9	5.50	5.64	4.88	4.86		6.50	6.36
10	4.25	4.45	4.50	3.59		4.75	4.14
11	4.38	4.36	3.63	3.36		5.63	5.14
12	5.25	5.36	2.75	3.36		6.38	5.50
13	4.63	4.91	4.88	4.41		5.50	5.73
14	6.13	6.36	5.25	5.50		6.63	6.36
15	6.00	6.09	4.50	4.23		6.63	6.23
16	3.50	3.59	2.63	2.09		4.50	4.59
17	3.13	2.82	2.63	2.77		3.75	3.50
18	4.75	4.86	2.88	4.09	(.02)	6.25	5.41
19	4.88	5.77	4.00	4.55		6.38	5.50
20	4.00	4.00	3.75	2.64		4.75	4.32
21	4.38	5.09	3.13	3.23		5.63	5.59
22	4.00	4.14	2.75	2.55		4.75	4.55
23	3.13	3.09	2.38	2.09		5.50	4.32
24	5.50	5.32	4.63	4.23		5.88	5.23
25	5.13	5.36	3.75	3.68		5.88	5.64
26	5.25	5.64	4.00	4.14		6.63	5.91
27	3.13	4.00	2.00	2.77		5.38	4.50
28	6.00	5.95	4.75	5.86		6.13	6.05
29	4.00	5.14	3.00	4.23		4.63	5.05(.003)
30	4.88	5.59	4.25	4.91		6.63	6.27
31	3.25	4.68	1.75	3.64	(.02)	5.88	5.18
32	4.50	4.41	3.63	3.09		5.13	4.91
33	5.38	5.64	5.13	5.14		6.13	5.50
34	4.25	4.55	3.00	2.55		5.25	5.14
35	4.38	4.73	3.00	2.45		5.13	4.68
36	4.13	4.27	2.88	3.23		5.50	4.59
37	5.50	5.77	4.00	4.32		6.13	5.95
38	4.63	4.41	4.13	3.55		5.50	4.45
39	2.00	3.23	1.63	2.27		3.75	3.73
40	5.75	5.09	4.75	4.68		6.25	5.41
41	6.63	6.82	4.75	5.45		6.38	6.32
42	3.88	4.86	3.13	3.55		5.63	4.86
43	2.75	4.05	2.00	3.32		5.50	5.32
44	5.50	5.95	4.00	4.14		6.13	5.91
45	4.13	3.86	2.13	2.41		5.50	5.14
46	5.88	5.18	4.63	3.82		6.50	6.55

Table 4.3 shows mean semantic differential scores by actual personal contact when subjects completed the fourth semantic differential giving their own beliefs. Subjects with contact gave the most positive responses on 39/45 items (with one tie).

ANOVA yielded 4 significant differences, contact having a positive effect in each case. Relevant probability levels are included in the table.

TABLE 4.3
Subjects' own beliefs about retardates

Item	Acquainted S's		Unacquainted S's		
	Mean	s.d.	Mean	s.d.	
1	5.00	1.41	5.86	1.10	
2	3.30	1.16	4.00	2.00	
3	4.40	2.17	5.36	1.01	
4	2.10	1.10	2.86	1.35	
5	4.40	1.71	4.29	1.82	
6	4.80	1.48	5.64	1.08	
7	4.90	1.73	5.07	1.82	
8	4.40	1.96	5.00	1.88	
9	5.50	1.27	5.71	1.33	
10	4.20	1.62	4.36	1.22	
11	3.90	0.88	3.93	1.49	
12	3.40	1.43	5.21	1.42	p = .006
13	4.50	2.07	4.79	1.67	
14	4.90	1.29	5.50	1.45	
15	5.30	1.57	5.57	1.22	
16	2.90	1.66	2.64	1.91	
17	2.70	1.64	1.79	0.97	
18	4.20	0.63	4.57	1.28	
19	5.70	1.34	5.57	1.02	
20	3.10	1.85	4.00	1.04	
21	3.70	1.06	4.79	1.12	p = .03
22	2.80	1.40	3.71	1.68	
23	3.20	2.04	3.29	1.94	
24	3.90	1.91	5.00	1.41	
25	4.40	1.71	4.43	1.28	
26	3.70	1.34	5.00	1.62	p = .05
27	2.00	1.15	2.86	1.79	
28	5.20	1.75	5.79	0.97	
29	5.00	1.76	5.00	1.30	
30	4.50	1.72	4.93	1.73	
31	3.60	1.96	4.07	1.33	
32	3.70	1.77	3.50	1.09	
33	5.30	1.06	5.50	1.16	
34	3.50	1.90	4.43	1.87	
35	3.00	1.63	3.14	1.51	
36	3.90	0.88	4.00	1.36	
37	4.70	0.95	5.07	1.00	
38	4.10	1.29	4.14	1.51	
39	2.30	1.25	2.71	2.02	
40	4.80	1.62	3.93	1.59	
41	5.70	1.06	5.86	0.95	
42	3.90	1.29	4.36	1.22	
43	2.70	1.34	3.71	0.91	p = .04
44	4.20	1.75	4.71	1.20	
45	2.80	1.62	3.07	1.59	
46	4.60	1.84	4.64	1.98	

Predicted scores were factor analysed for each social identification (BMDP4M). Initial analyses yielded 13 factors for "doctor" and "someone personally acquainted with a retarded person" and 14 for "teacher". Since the first ten factors accounted for approximately 90% variance in each case and factors 11 onwards seemed particularly vague, data were reanalysed specifying an eigenvalue of 1.5.

This yielded 10 factor solutions for "doctor" and "someone personally acquainted with a retarded person" and an 11 factor solution for "teacher", which are given in Table 4.4, although to clarify the picture further, only items loading above .4 have been included.

7.4 DISCUSSION

The first aspect of the analysis is a variation on Orne (1962, 1969) and Kruglansky's (1975) first strategy: the supposed source of demand characteristics, that is general cultural expectations associated with the social identifications "doctor", "someone personally acquainted with a retarded person" and "teacher" (macrosystem influences) remain constant - in the sense that their influence is as freely available here as in other paradigms - while at the same time, the fact that their predicted effect is examined in a repeated measures design eliminates the influence of the usual independent (treatment) variable, actual differences between doctors, acquainted subjects and teachers.

There were 42 significant differences between predictions for "doctor", "someone personally acquainted with a retarded person" and "teacher" which means that members of these social categories are hypothesised to have different beliefs about retardates, - or in the present terminology - that there are different demand characteristics associated with these social identifications.

In each of the 42 cases, "someone personally acquainted with a retarded person" was associated with the most positive evaluation - a trend insignificantly repeated on all but one of the remaining four items.

Since semantic differential responses are scored from 1 to

7, the former being assigned to positive and the latter to negative poles, simply counting the number of positive scores indicates overall predicted evaluation. In this way, the demand characteristic associated with "someone personally acquainted with a retarded person" was found to be evaluatively ambivalent, whereas those associated with "doctor" and "teacher" are extremely negative (according to the Sign Test, 26/46, N.S.; 8/46, $p < .001$; 3/46, $p < .0001$).

Results may therefore be summarised as follows:- demand characteristics associated with the social identifications, "doctor", "someone personally acquainted with a retarded person" and "teacher", can generate significant differences in beliefs about retardates, independent of subjects' "personalities", background and experience. Furthermore they generate both absolutely and relatively negative responses in the first and third cases, compared with absolutely ambivalent, relatively positive in the second.

Since this is broadly consistent with Study 1 and follows the trend of many others, e.g. Buden, 1977; Efron and Efron, 1967; Foster and Keech, 1977; Greenbaum and Wang, 1965; Harth, 1973; Hollinger and Jones, 1970; Kennon and Sandoval, 1978 to name but a few, it is likely - though not proven - that conformity to social identity related demand characteristics (i.e. normative expectations associated with group membership) rather than summed individual differences between group members accounts for variation

between responses of real doctors, acquainted subjects and teachers. The *relative* negativity of the teacher role compared with predictions for doctors, however, is not consistent with Study 1, but was probably artefactually generated by a subject who joked about the draconian nature of his teachers, and in his opinion, teachers in general, even though subjects were reminded they should predict for an average contemporary teacher.

Unfortunately, it is never possible to conclude from this sort of procedural probe that demand characteristics do account for experimental outcomes. It is merely probable. (Kruglansky, 1975; Orne, 1962, 1969). However, the alternatives (1) that genuine equivalence of the mediating psychological processes (Bem, 1965, 1967) or (2) empathy (Kruglansky and Eilam, 1974) account for the similarity between predicted and actual responses, seem improbable here, (with the possible exception of actually acquainted subjects predicting for the acquainted identification) because all subjects were lay people and it seems unlikely that they mimicked teachers and doctors by empathising so successfully that they were able to reproduce "genuine" clinical or professional beliefs. Rather, the general cultural expectations that guided subjects in the present experiment also guide doctors, teachers and acquainted subjects.

Kruglansky's (1975) second strategy, he argues, *can* be conclusive. When a supposed source of demand

characteristics is varied orthogonally with an experimental variable,

- (1) the former alone might replicate the typical result
- (2) both might replicate it independently or
- (3) in interaction or
- (4) only the experimental variable elicits it.

The first outcome, is of course the most serious. It indicates conclusively that demand characteristics rather than the treatment account for the usual outcome of a paradigm.

The subsidiary aspect of the analysis, which is something of an after thought, is a variation on this strategy in the form of a comparison between the effects of actual contact - representing the usual experimental variable - and expectations about contact - the suspected source of demand characteristics. Ideally, equal numbers of doctors, acquainted subjects and teachers should have been employed so that "experimental variables" and the three sources of demand characteristics could be systematically varied, but it simply was not possible to recruit and screen the large number of subjects this would have required, so it was necessary to settle on this preliminary approximation. Retrospectively, a more appropriate design could have been achieved by asking subjects also to predict for "someone not personally acquainted with a retardate", but for reasons which will become plain, a new experiment was not undertaken to achieve this.

Table 4.2 shows mean predicted scores given by acquainted and unacquainted subjects for the three identifications. ANOVA yielded only 1 main effect, in which actual contact subjects predicted a higher level of self esteem would be attributed to retardates across the 3 identifications (item 29, $p = .003$), but since there were 46 analyses, this could easily have been a chance effect. Similarly, there were just 2 interactions, (unacquainted subjects predicted "someone personally acquainted with a retardate" would find them more "embarrassing" (item 18, $p = .02$) and "unaware of right and wrong", (item 31, $p = .02$), also explicable by chance.) Although there was a trend for acquainted subjects to make more and less positive predictions for doctors and teachers, respectively, compared with unacquainted subjects, it is more striking that the effect of actual contact on predicted scores for "someone personally acquainted with a retarded person" was exactly at chance level. Data from the fourth semantic differential in which subjects gave their own beliefs, showed this lack of contact effects was not because subjects were atypical. Table 4.3 shows the "usual" pattern, with acquainted subjects giving more positive responses on 39/45 items (with one tie), 4 differences being significant.

In summary, actual contact, the independent variable usually believed to account for the positive beliefs of acquainted subjects has had a chance overall effect whereas expectations about acquainted subjects, the supposed source

of demand characteristics, with which it is usually confounded, accounted for 45/46 most positive scores, ($p < .0001$). Thus, despite the preliminary nature of this aspect, results are striking enough to suggest that a more rigorous design would reveal, according to Kruglansky's most serious situation, that differences in beliefs about retardates are not due to summed individual differences between groups of subjects but to conformity to expectancies mediated by shared social identifications.

So far data have only been treated in a unidimensional fashion, and therefore results could perhaps be explained if subjects simply responded to an evaluative demand that acquainted subjects are "kind", for example, which falls far short of the complex ideological and attitudinal influences attributed to the macrosystem. For this reason, raw scores were factor analysed, despite the relatively small sample size, and the predicted meaning of retardates for "doctor", "someone personally acquainted with a retarded person" and "teacher" is given in Table 4.4. Differences are striking, showing that expectations associated with social identifications prevail into multidimensional levels.

TABLE 4.4
PREDICTED MULTIDIMENSIONAL MEANINGS OF "RETARDATE"

"Doctor"		"Personally acquainted"	
FACTOR 1 (30.1% variance)		FACTOR 1 (35.3% variance)	
bad at expressing self	.96	easy to relate to	.79
slow learner	.75	badly dressed	.78
socially inept	.69	wanted	.77
low intelligence	.69	wanting to join in	.73
(-well-meaning)	.45	attractive	.61
abnormal	.45	nice to live with	.61
		loving	.58
		family's pride	.57
		(-bad at expressing self)	.54
		clean	.51
		not frightening	.47
		slow learner	.45
FACTOR 2 (11.9% variance)		FACTOR 2 (14.1% variance)	
unacceptable neighbour	.86	abnormal	.86
insecure	.78	mentally ill	.70
badly dressed	.56	need special classes	.68
burden to society	.54	socially inept	.66
		(-asset to society)	.62
		bad at expressing self	.60
FACTOR 3 (10.4% variance)		FACTOR 3 (9.0% variance)	
speech impeded	.91	confused thinker	.76
dependent	.85	accident prone	.70
mentally ill	.62	insecure	.63
poorly-coordinated	.50	excitable	.58
		low intelligence	.57
		poorly-coordinated	.57
		bad at concentrating	.54
		slow learner	.54
		soothing	.46
FACTOR 4 (8.7% variance)		FACTOR 4 (8.0% variance)	
hard to relate to	.71	(-unpredictable)	.80
aggressive	.64	healthy	.70
abnormal	.61	high self esteem	-.62
strain for family	.60	happy	.60
(-wanting to join in)	-.49		
bad at concentrating	.47		
FACTOR 5 (7.8% variance)		FACTOR 5 (7.9% variance)	
physically h'capped	.74	good gov't provision	.74

dirty	.70	poorly understood	.68
nasty to live with	.53	not frightening	.56
family's shame	.47	(-frustrated)	-.50
		(-dependent)	-.49
FACTOR 6 (6.4% variance)		FACTOR 6 (6.3% variance)	
frustrated	.77	physically normal	.75
sad	.73	normal face	.62
(-loving)	.63	(-speech impeded)	.47
need special classes	.56		
FACTOR 7 (5.7% variance)		FACTOR 7 (6.3% variance)	
unpredictable	.87	well-meaning	.62
(-sensitive to others)	.62	different	.55
FACTOR 8 (5.6% variance)		FACTOR 8 (5.0% variance)	
unaware of right & wrong	.78	sensitive to others	.83
(-good gov'ment provision)	.60	(-speech impeded)	.53
(-alike)	.46		
nasty to live with	.20		
FACTOR 9 (4.8% variance)		FACTOR 9 (4.5% variance)	
embarrassing	.80	quiet	.86
bad at concentrating	.62	insecure	.48
excitable	.62		
FACTOR 10 (4.7% variance)		FACTOR 10 (3.8% variance)	
dev'ment fixed by birth	.81	acceptable neighbour	.52
(-poorly understood)	.53		
FACTOR 11 (3.9% variance)			
abnormal face	.63		
confused thinker	-.61		
burden to society	.48		

"Teacher"

FACTOR 1 (36.1% variance)	
slow learner	.83
childlike	.82
bad at concentrating	.81
poorly-coordinated	.80
speech impeded	.66
accident prone	.56
low intelligence	.52
insecure	.45

FACTOR 2 (14.0% variance)	
family's shame	.82
dirty	.73
badly dressed	.70
(-loving)	.68
unwanted	.66
frightening	.64
illness prone	.59
nasty to live with	.54
burden to society	.50
unattractive	.47
embarrassing	.46

FACTOR 3 (10.0% variance)	
unaware of right & wrong	.85
unacceptable neighbour	.71
need special classes	.69
confused thinker	.85
dev'ment fixed by birth	.50
obstructive	.49

FACTOR 4 (8.6% variance)	
abnormal	.72
(-wanting to join in)	.64
socially inept	.59
mentally ill	.55
low intelligence	.52
illness prone	-.47
unattractive	.47
alike	.50
burden to society	.45

FACTOR 5 (7.1% variance)	
insensitive to others	.67
speech impeded	.53
aggressive	.49

FACTOR 6 (6.1% variance)	
alike	.71
bad gov'ment provision	.56
insecure	.48
frightening	.47
FACTOR 7 (5.7% variance)	
excitable	.65
strain for family	.62
mentally ill	.52
FACTOR 8 (4.9% variance)	
low self esteem	.74
dependent	.66
sad	.59
unpredictable	-.56
FACTOR 9 (4.0% variance)	
quiet/noisy	-.64
physically h'capped	.61
FACTOR 10 (3.6% variance)	
frustrated	-.84

Factor 1 for "doctor" which accounts for almost a third of overall variation, is close to a textbook definition of retardation. It concerns intelligence, social competence and abnormality. Clearly, the demands on a doctor to be primarily concerned with "symptoms" of the medical model are extremely pervasive: even a small group of lay people are familiar with them. Although the remaining factors are neither so clear nor so striking, they seem to centre on social competence or acceptability, further symptoms of retardation and the burden of caregiving. It is not until Factor 6 that personal characteristics arise, but even here, less "loving", more "frustrated" and "sad" covary with the belief that retardates should be in special classes, which suggests that doctors are expected to be interested in personal characteristics not for human reasons, but to facilitate decisions about placements.

Throughout the predicted multidimensional meaning of retardates for "someone personally acquainted with a retarded person" the emphasis is on interpersonal relationships: elements of the medical model being subsidiary. Factor 1, which accounts for more than a third of overall variance, centres on how easy retardates are to relate to, but this covaries not with their aggressiveness and abnormality as it did in Factor 4 for "doctor", but with more personal characteristics like lovingness, approach tendencies and attractiveness. Also, the correlation with "wanted", "well dressed", "clean" and "family's pride"

suggests that acceptability is less a function of constitutional factors and more dependent on the love and care of others.

Factor 2 contains elements of the medical model, but interestingly, low intelligence, is missing. This appears in Factor 3 where it covaries (primarily) with items relating to thinking, learning and emotional stability. Thus, the influence of the medical model, in contrast to that predicted for doctors, is secondary, and there is something of an emphasis on practical aspects of intelligence, rather than on intelligence as a constitutional trait.

Throughout the following factors - with the exception of Factor 6, the emphasis returns to personal characteristics.

Predicted Factor 1 for teachers clearly centres on learning ability; low intelligence covaries with "slow learner" and "bad at concentrating", not with "abnormal" and "socially inept" as predicted for doctor.

Factor 2 shares some dimensions with with Factor 1 for "someone personally acquainted with a retarded person", but is negative in tone and the items relating to personal characteristics and caregiving covary with "embarrassing", "frightening" and "burden to society", not with "easy/difficult to relate to". In other words, it suggests a negative *reaction* rather than an openness to *interaction*. Nevertheless, it is interesting to speculate that it

assesses suitability for classroom integration. This is perhaps the theme of the remaining factors, but in general they seem fuzzy and do not constitute meaningful units.

In summary, two points may be made: most important, expectancies associated with the three roles, "doctor", "someone acquainted with a retardate" and "teacher" of themselves are sufficient to generate multidimensional differences in beliefs - that is to say, in belief structure and content as well as evaluation. Second, doctors are clearly expected to show primary concern with clinical rather than personal aspects, while personally acquainted subjects and teachers are expected to show more interest in personal characteristics and intellectual functioning.

Since the outcome of factor analyses depends entirely on the data analysed, it would be necessary to gather parallel information from real doctors, acquainted people and teachers in order to see whether results mimic those of real subjects. Thus, no direct comparisons are possible, although anecdotal complaints that doctors conceptualise retardates in dehumanised, clinical terms, are suggestive (e.g. Bogdan and Taylor, 1976; Turner, 1980; Valpey, 1982).

A comparison with factors derived from acquainted lay people in Study 1, is less supportive, since although these showed an interest in personal characteristics, they focussed more on abnormality, which it was argued, might have represented an assessment of the amount of care needed. Present results

might therefore reveal that the demands associated with the personally acquainted role are rather sentimental (at the multidimensional level), which means that the more practical beliefs of real acquainted subjects are mediated by actual experiential or personal factors. However, this conclusion is not inevitable: first, there are differences in subject numbers and the instrument between this and Study 1, and more important, consideration reveals that there are qualitative differences between the present study and others, like Study 1, which would make comparisons inconclusive even if parallel data were available. For example, an interesting and conceptually knotty question is just how detailed normative expectations can be assumed to be. Clearly, it would be nonsensical to imagine that a lay person is as well versed in the norms of medical, "personally acquainted" and educational social systems as are doctors, acquainted people and teachers. Thus, subjects might have lacked the knowledge necessary to make precise predictions. Furthermore, subjects were consciously making predictions about three roles, which is likely to be very different from actually conforming to one of them. For example, contrast effects and the explicit focus might have resulted in a clearer - or perhaps even artefactual generation of differing predicted responses. This lack of psychological equivalence suggests that a rigorous orthogonal variation between actual group membership and expectations associated with group membership (Kruglanski's second and

conclusive strategy), cannot be attained via this prediction method.

To conclude, Study 3 has shown that normative expectations are sufficient to generate between group differences in beliefs about retardates, at uni- and multi-dimensional levels. Resemblances with evaluative outcomes in Study 1 and others suggest that conformity to expectations rather than averaged inter-individual differences account for broad evaluative differences between clinically oriented, personally acquainted and teacher subjects in real experiments, but lack of relevant comparisons together with design restrictions preclude more detailed and confident conclusions. Furthermore, post hoc logical criticisms suggest that predictions and actual conformity are unlikely to be psychologically equivalent. For this reason, stronger evidence will be sought by means of a different design, in Study 4.

8. STUDY 4

An attempt to enhance medics' shared social identification

8.1 Introduction

To recap, the argument of this chapter is that through aspects of self-definitions, specifically Turner's social identifications, individuals assign themselves relevant norms and this results in conformity, including attitudinal conformity, amongst those who perceive themselves as members of the same group. Thus, Turner's theory provides an explanation for between group differences in beliefs about retardates that is truly social psychological, that is dependent on shared intra individual factors (perceived group membership), rather than averaged experiential or personality differences.

In order to validate this empirically, it is necessary to show that norms and expectations associated with group membership, rather than individual characteristics of group members, mediate beliefs about retardates.

Study 3 attempted to exclude the influence of real differences between doctors, acquainted people and teachers, by using a single group of lay subjects. Subsequently, the effect of expectations associated with these roles was probed by asking subjects to predict beliefs for a member of each. However, lay subjects might not have been sufficiently aware of relevant norms, and were unlikely to respond in a way psychologically equivalent to real doctors, acquainted subjects and teachers in experiments.

The present study effectively reverses the previous strategy. The effect of summed individual differences between members of different groups will be controlled by using members of the same social group - medics - and randomly assigning them to treatments designed to facilitate (1) self-perceptions as clinicians, and hence conformity to group norms or (2) individual, personalised self-perceptions. Of course, this also eliminates the fear that subjects will not be familiar with normative expectations.

With a salient social identification, it is hypothesised that medics:

(1) will be more likely to class targets as "retarded", due to a change in response bias rather than sensitivity, because a) they will conform to the code that it is worse to dismiss an ill patient than to retain a well one and b) because they will evince the inherently negative evaluative nature of the medical model (see Chapters 2.2 and 3.3a).

In order to operationalise this, signal detection theory will be used to measure ability to distinguish between (slides of) retarded and normal children and the direction of "misdiagnoses".

(2) their beliefs about retardates will be more negative,

(3) their beliefs about retardates will show greater

consensus and closer correspondence to the medical model of subnormality, and hence be less affected by personal characteristics.

8.2 METHOD

Subjects

Forty-five students aged 18 to 33, 19 males and 26 females, at Bristol University's Medical School. Prof. Butler, Head of Bristol University's Department of Child Health, kindly recruited 23 who were 10 weeks into their first year, 15 were beginning their second year and the remaining 7 were qualified. Nineteen were personally acquainted with a retardate, 24 were not and 2 females did not say.

Apparatus

1. Slides of 10 children who had been diagnosed retarded and 10 who were mentally "normal". (These were the same slides that were used in Study 2 and are to be found in Appendix 3.2).

Following signal detection theory (McNicol, 1972), the former were designated signals and the latter, noise. Signals included Target 7 - the normal appearing subnormal boy of Study 2 - and Target 16 who was only mildly retarded. Noise included Target 4 - the subnormal appearing normal girl of Study 2 - together with Target 17 who had a physical handicap and who was photographed strapped into his go cart. The inclusion of these more anomolous targets was designed to ensure an area of overlap between signal and noise distributions during which response bias should be more clearly revealed.

2. Rating Forms labelled "Medical diagnosis and visual cues" or "Personality and person perception". (Appendix

4.3).

3. The 46 item semantic differential of Study 3 (Appendix 4.1) labelled "Medical diagnosis and subnormality:- beliefs about retardates" or "Personality and perception:- personal beliefs about retarded people".

Procedure

Subjects were randomly assigned to one of two groups, on the basis of the instructions and materials they were given:-

Group 1 (n = 22) was designated the Medical Group and received instructions designed to increase the salience of a shared medical social identification:-

"E is a psychologist researching into subnormality, and needs the help of medically trained people in an experiment. If you don't feel experienced enough to qualify as "medically trained" yet, don't worry. Just try to be clinical in your approach. There are two tasks. The first concerns the visual cues that identify children as retarded. As medics, you might go on to do clinical work with retardates and it's important to identify the aspects of appearance that you as medical people find most influential. You'll see slides of 20 subnormal and normal children - it's not always obvious which have been diagnosed as retarded. Will you please rate the likelihood that each child is subnormal by marking the appropriate box on your rating form. Obviously as clinicians, you would have to make diagnoses based on incomplete evidence, but of course, you wouldn't be confined to visual information only.

Task 2: Please fill in the semantic differential to describe what you think someone diagnosed retarded is like.

Rating forms and semantic differentials for this group bore the medical labels in a hopeful attempt to add impetus to the manipulations, although St.Claire and Turner (1982), found no real evidence that subjects are particularly

vigilant and susceptible to such devices.

Questions relating to subjects' age, sex and personal contact with retardates, were embedded at the foot of the semantic differential where it was felt, they would not be noticed until responses had been completed, and hence, they should not weaken the salience of the social identification.

Group 2 (n = 23) received instructions designed to enhance the salience of their personal identities:

"E is interested in the way personality affects how people perceive others, who they find attractive and what they believe, and is trying to apply this to help mentally subnormal children. There are two tasks: the first concerns the visual cues that make people think someone is retarded. Obviously different individuals will be affected by different aspects of appearance. You'll see slides of 20 subnormal and normal children - it's not always obvious which is which. Will you please rate the likelihood that each child is subnormal by marking the appropriate box on your rating form.

Task 2. Please fill in the semantic differential to describe what you personally think someone who's retarded is like.

To make the emphasis on personality more convincing, copies of Cattell's 16PF personality test were distributed, and experimental materials bore the personality labels.

In this case, questions relating to subjects' age, sex and personal contact headed rating forms, since it was felt they should further enhance personal identity.

At the last moment Prof. Butler changed access to the subjects. As a result, two groups (of 11 and 12 first

years) became available, which made it possible to vary the order of tasks within treatments to check for any order effects. The opportunity was taken, although materials were already prepared and half the subjects in the medical condition would therefore have to give personal details between tasks, which might have weakened the impact of the "doctor" manipulation.

Giving personal details between tasks does not seem necessarily disadvantageous for the personal group, but on the contrary, might have "boosted" the treatment.

Individual and group testing was employed since a number of writers, e.g. Deutsch et al (1969), Doise and Sinclair, (1973), St.Claire and Turner (1982) have found evidence that social identity might be less salient when subjects are tested as a group, because, Deutsch argues, interpersonal relationships and hence, personal identity, are more likely to intrude when subjects sit together. This suggests that individual and group testing respectively, might usefully contribute to Medical and Personal treatments. Deutsch's reasoning derives from the so called minimal group experiments (originating with Tajfel (1970), Tajfel, Flament, Billig and Bundy (1971)), in which it will be remembered, social categorisation per se was isolated by dividing classes of schoolboys into ad hoc groups, ostensibly on the basis of a trivial criterion, and informing them only of their own group membership. Under these circumstances, it is reasonable to suppose that the

temporary experimental social identifications would be supplanted by pre-existing social and personal identifications when subjects are within sight of each other. All subjects in the present experiment, however share membership of the same situationally relevant social category, and testing with other known ingroup members might therefore *increase* its salience, which suggests group and individual testing respectively, might contribute to Medical and Personal treatments. Since this is precisely the reverse of the previous conclusion, both methods of testing were employed as an additional independent variable.

Group testing occurred during lectures (with kind permission from Prof. Butler). Throughout, subjects were asked not to confer. In the first session, 10 were available, 5 were assigned to each condition and the slide task was taken first. In the second session, 13 were available. Six were assigned to the medical and 7 to the personal condition and the semantic differential task was first.

Individuals ($n = 22$) were approached in the library and commonroom, but unfortunately, in these "public" places they were almost invariably joined by others, so it is doubtful that the two testing methods were entirely distinct.

After testing, subjects were told that they had been addressed in a way designed to be clinical or personal and asked whether they felt they had responded as "doctors" or "individuals" and whether they would have responded

differently had they received the other approach. They were then debriefed and asked for any comments.

8.3 TREATMENT OF DATA AND RESULTS

No differences due to the order of tasks were found and data were therefore combined across this variable.

a. Rating Task

To measure each subject's ability to distinguish 'normal' and 'retarded' targets, areas under respective ROC curves were calculated (and are given in Table 4.5). Because only 20 target slides were available (each viewed once), it seemed sensible to use a non parametric measure of response bias. For this reason, McNicol's B was calculated for each subject. Briefly, response categories are numbered from 1 (strictest) to the most lax (6 in this case), and B is simply the category at which subjects have made half their responses - that is to say, half are more strict and half more lax. Thus, B is the point at which subjects are equally disposed to respond signal or noise i.e. can not distinguish between target types. It follows, therefore that the nearer B to the strictest category, the more biased a subject is towards making signal responses when in doubt. In the present context, this means that small B measures indicate a bias towards classing a target retarded. (See McNicol, 1972 for a full explanation of both measures).

TABLE 4.5
Sensitivity (Area) and response bias (B) measures

	Medical		Personal	
	Area	B	Area	B
	.725	2.5	.745	4.428
	.675	2.0	.74	3.0
	.625	2.56	.805	3.0
	.72	3.25	.815	3.0
	.84	4.0	.83	4.2
	.72	3.75	.755	2.75
	.785	3.0	.765	4.0
	.705	3.33	.635	2.66
	.73	3.4	.835	3.2
	.76	3.8	.63	2.66
	.685	2.66	.77	4.17
	.65	2.59	.675	3.41
	.85	2.25	.845	4.2
	.765	3.0	.635	3.428
	.71	2.75	.755	3.66
	.74	4.0	.72	3.33
	.64	3.0	.675	4.0
	.71	4.0	.77	3.5
	.72	3.5	.72	3.5
	.935	3.75	.84	2.8
	.64	2.5	.70	3.5
	.72	2.2	.65	3.23
			.867	4.5
Mean	.730	3.08	.747	3.484
s.d.	.074	0.634	.074	0.573

Mann-Whitney's U showed no difference between conditions of subjects' ability to distinguish normal and retarded targets, ($U = 209$, $p = .317$, two tailed), but those in the Medical condition were significantly more biased towards responding "retarded" ($U = 161$, $p = .018$, 1 tailed).

b. Semantic Differential Task

1. Mean s.d. scores for medical and personal conditions are given in Table 4.6, and displayed in Figure 4.1.

Overall, subjects in the medical condition gave more negative opinions on 40/46 variables ($p < .0001$, Sign Test).

TABLE 4.6

Mean semantic differential scores for Medical and Personal conditions

	Medical		Personal		Var Ratio
	Mean	s.d.	Mean	s.d.	
1 poorly-coordinated	5.91	0.92	5.70	0.82	0.80
2 quiet/noisy	4.27	1.16	4.00	1.35	1.35
3 insecure	4.82	1.44	4.87	1.32	0.85
4 loving	2.32	0.89	2.65	1.30	2.12
5 illness prone	5.05	1.40*	4.48	0.99	0.51
6 speech impeded	5.32	1.76	5.61	1.08	0.38
7 dependent	5.73	0.98	5.35	1.11	1.28
8 frustrated	4.64	1.59	4.30	1.61	1.02
9 bad at concentrating	5.59	1.65	5.48	1.53	0.86
10 physically h'capped/normal	4.86	1.08+	3.91	1.12	1.08
11 family's shame	5.14	1.13+	4.65	1.19	1.12
12 hard to relate to	5.41	1.62	4.48	1.56	0.93
13 unpredictable	5.36	1.40	5.04	1.15	0.67
14 childlike	6.41	0.73+	5.57	1.31	3.18
15 slow learner	6.41	0.96	6.22	0.80	0.69
16 good/bad gov'ment provision	4.00	1.69	3.78	1.48	0.76
17 poorly understood	6.14	1.13*	5.04	1.36	1.47
18 embarrassing	5.23	0.97*	4.39	1.20	1.51
19 bad at expressing self	6.05	0.84*	5.04	1.43	2.87
20 happy	3.59	1.10	3.52	1.04	0.90
21 unattractive	5.41	1.18	4.70	1.29	1.20
22 clean/dirty	4.73	1.49+	3.87	1.29	0.75
23 frightening/not frightening	4.45	1.57	3.74	1.48	0.90
24 dev'ment fixed by birth	4.95	1.40	4.22	1.86	1.77
25 burden to society	4.95	1.21	4.83	1.03	0.72
26 low intelligence	6.00	1.02	5.96	0.98	0.91
27 different to each other	2.86	1.64	2.91	1.70	1.08
28 excitable	5.55	1.30	4.91	1.04	0.64
29 low self esteem	4.86	1.21	4.35	1.03	0.72
30 confused thinker	5.64	1.29	4.96	1.30	1.01
31 unaware of right and wrong	4.36	1.81	4.30	1.64	0.81
32 aggressive	4.73	1.16	4.26	0.81	0.49
33 accident prone	6.14	0.71*	5.04	1.30	3.33
34 unwanted	4.68	0.95*	4.87	1.14	1.45
35 un/acceptable neighbour	4.32	1.59	3.70	1.64	1.06
36 badly dressed	4.95	1.33	4.04	0.98	0.54
37 socially inept	5.55	1.37	5.04	1.36	0.99
38 abnormal face	5.09	1.15	4.91	1.41	1.50
39 wanting to join in	2.95	1.53	2.87	1.14	0.56
40 mentally ill/sane	4.00	1.75	3.57	1.59	0.83
41 strain for family	6.23	0.97	6.22	0.90	0.86
42 nice/nasty to live with	4.18	1.01	3.87	0.92	0.84
43 well-meaning	3.32	1.32	3.70	1.18	0.80
44 abnormal	5.73	0.98*	4.87	1.42	2.09
45 sensitive to others	3.73	1.67	3.26	1.29	0.60
46 should be in special classes	5.41	1.30	5.26	1.86	2.07

+ p < .05

* p < .01

A 2 x 2 (condition x method of testing) ANOVA using BMDP 2V showed significant main effects for condition on 11 variables, and relevant probability levels are included in Table 4.6. In each case, subjects in the medical condition were more negative.

Variance ratios are also included in Table 4.6: five differed significantly between conditions, subjects in the medical condition showing greater consensus in each case, but there was no overall trend ($p_{20/46} = .23$).

2. There was a significant main effect for method of testing on 3 variables, individual testing resulting in a more negative response. This reflected an overall trend ($p_{30/46} = .014$), which per se is of little interest and therefore, only included for completeness.

Of more relevance were 4 significant (condition x method of testing) interactions, but these were not consistent: on variable 9, individual and grouped subjects in the personal condition gave the most positive and negative responses respectively, and on variable 16, the most negative and positive ($p = .04$). On variables 5 and 11, individual subjects in the medical condition were the most negative and individual/personal the most positive ($p = .0009$, and $.01$) but none of these seemed to reflect the overall trend which was for individual/medical subjects to give most negative and grouped/personal the most positive responses (Chi-square = 57.39, d.f. = 7, $p < .001$).

Relevant semantic differential scores are given in Table 4.7.

TABLE 4.7

Mean semantic differential scores for condition and method of testing

Item	Medical condition				Personal condition			
	individual Mean	s.d.	group Mean	s.d.	individual Mean	s.d.	group Mean	s.d.
1	5.67	1.03	6.00	0.89	5.58	1.00	5.82	0.60
2	4.67	0.82	4.13	1.26	3.67	1.56	4.36	1.03
3	4.83	1.94	4.81	1.28	5.08	1.56	4.64	1.03
4	2.17	0.75	2.38	0.96	3.08	1.38	2.18	1.08
5	6.33	0.82	4.56	1.26	4.17	0.58	4.82	1.25
6	6.00	0.89	5.06	1.95	5.33	1.23	5.91	0.83
7	5.50	1.38	5.81	0.83	5.33	1.30	5.36	0.92
8	4.17	1.72	4.81	1.56	4.25	1.36	4.36	1.91
9	6.17	1.17	5.38	1.78	4.67	1.72	6.36	0.50
10	4.83	0.75	4.88	1.20	3.83	1.03	4.00	1.26
11	6.00	0.63	4.81	1.11	4.50	1.24	4.82	1.17
12	5.67	1.86	5.31	1.58	4.58	1.98	4.36	1.03
13	6.00	1.26	5.13	1.41	5.33	1.15	4.73	1.10
14	6.33	0.82	6.44	0.73	5.33	1.50	5.82	1.08
15	6.50	1.22	6.38	0.89	6.33	0.78	6.09	0.83
16	3.50	1.97	4.19	1.60	4.42	1.31	3.09	1.38
17	6.50	0.55	6.00	1.26	5.42	1.38	4.64	1.29
18	5.67	1.03	5.06	0.93	4.33	1.56	4.45	0.69
19	6.50	0.55	5.88	0.89	5.08	1.62	5.00	1.26
20	3.67	1.63	3.56	0.89	3.92	0.29	3.09	1.38
21	5.50	1.22	5.38	1.20	4.17	1.34	5.27	1.01
22	5.50	1.38	4.44	1.46	4.08	1.31	3.64	1.29
23	5.00	2.10	4.25	1.34	4.00	1.48	3.45	1.51
24	5.00	1.67	4.94	1.34	4.67	1.78	3.73	1.90
25	5.33	1.21	4.81	1.22	4.75	1.14	4.91	0.94
26	5.83	1.17	6.06	1.00	5.75	1.06	6.18	0.87
27	2.17	1.83	3.13	1.54	2.92	1.56	2.91	1.92
28	5.33	1.63	5.63	1.20	4.75	1.14	5.09	0.94
29	5.33	1.21	4.69	1.20	4.58	1.00	4.09	1.04
30	5.67	1.21	5.63	1.36	4.67	1.50	5.27	1.01
31	5.17	1.83	4.06	1.77	4.50	1.73	4.09	1.58
32	4.83	1.47	4.69	1.08	4.17	0.58	4.36	1.03
33	6.50	0.55	6.00	0.73	5.08	1.31	5.00	1.34
34	5.00	0.89	4.56	0.96	4.83	1.03	4.91	1.30
35	4.50	1.97	4.25	1.48	4.08	1.44	3.27	1.79
36	5.50	1.05	4.75	1.39	4.08	0.51	4.00	1.34
37	5.67	1.51	5.50	1.37	5.25	1.29	4.82	1.47
38	4.83	0.98	5.19	1.22	5.08	1.16	4.73	1.68
39	3.67	2.07	2.69	1.25	3.25	1.06	2.45	1.13
40	3.83	2.48	4.06	1.48	3.67	1.50	3.45	1.75
41	6.67	0.52	6.06	1.06	6.17	0.94	6.27	0.90
42	4.33	1.03	4.13	1.02	3.92	0.90	3.82	0.98
43	2.83	1.72	3.50	1.15	3.67	1.23	3.73	1.19
44	6.50	0.55	5.44	0.96	5.25	1.22	4.45	1.57
45	4.67	2.34	3.38	1.26	3.58	1.31	2.91	1.22
46	5.00	1.67	5.56	1.15	4.67	2.02	5.91	1.51

3. Separate analyses were carried out (using BMDP2V) to examine the effects of contact and sex within conditions. Relevant s.d. scores are given in Table 4.8.

Within the *Medical Group*, there was a main effect for contact on 1 variable ($p = .03$), but this was evaluatively neutral, subjects personally acquainted with a retardate believing them significantly noisier and chattier. Overall the effect of contact was exactly at chance level.

There was a main effect for sex on 7 variables, males being more negative in each case. Overall they were more negative on 34/46 items, ($p > .001$, Sign Test).

In addition, there was one interaction in which the influence of contact was positive for females and negative for males ($p = .02$). Overall, males with contact gave the most negative response on 24/46 variables compared with 3/46 for females with contact. Conversely, males with contact were most positive on only 5/46 items compared with 21/46 for females. (Chi square = 31.69, d.f. = 3, $p < .0001$).

Similarly, within the *Personal Group*, there was a main effect for contact on 6 variables, on four of which, subjects personally acquainted with a retardate gave the most positive responses. This reflects an insignificant overall trend ($p\ 26/40 = .23$, Sign Test).

There was a main effect for sex on 4 variables, females responding most positively on three. Overall, females were

most positive on 28/46 items, ($p = .09$, N.S., Sign Test).

There were no interactions.

TABLE 4.8
Sex and contact effects within conditions

Item	MEDICAL CONDITION				PERSONAL CONDITION				
	Males		Females		Males		Females		
	yes	no	yes	no	yes	no	yes	no	
1	6.00	6.00	6.00	5.67	5.75	5.00	6.20	5.50	c
2	c 5.00	4.50	4.60	3.17	4.00	3.25	5.40	3.50	c
3	4.60	5.00	4.20	5.33	4.50	4.25	4.80	5.13	
4	2.20	2.00	2.40	2.67	3.50	3.00	1.60	2.88	
5	5.20	5.33	4.80	4.83	4.75	4.75	4.20	4.50	
6	3.80	6.33	5.40	5.50	5.25	5.25	6.00	5.38	
7	6.00	5.67	4.80	6.33	5.25	4.75	5.40	5.50	
8	4.80	4.17	4.20	5.33	3.00	4.00	4.40	5.00	
9	5.00	5.83	5.40	6.00	5.50	5.00	6.00	5.75	
10	5.40	5.17	4.40	4.50	4.00	3.50	4.20	3.75	
11	s 6.00	5.33	5.00	4.33	5.50	4.50	4.20	4.38	
12	5.20	6.33	4.40	5.50	4.50	5.00	3.00	5.38	c
13	5.40	5.33	5.20	5.50	4.75	5.00	4.40	5.63	
14	6.80	6.50	5.80	6.50	5.25	4.25	6.40	5.50	s
15	6.60	6.83	6.00	6.17	5.50	6.50	6.20	6.25	
16	3.80	4.00	4.40	3.83	3.25	3.25	4.00	4.38	
17	5.60	6.33	6.20	6.33	5.00	4.25	4.80	5.75	
18	5.80	5.17	4.80	5.17	5.00	3.75	4.20	4.50	
19	6.80	5.83	6.00	5.67	5.00	5.50	4.80	5.13	
20	4.40	3.17	3.20	3.67	3.50	4.00	2.80	4.00	c
21	s 6.20	6.00	4.60	4.83	4.75	5.25	4.40	4.38	
22	s 6.20	5.00	3.80	4.00	4.75	4.50	3.60	3.13	s
23	s 5.40	4.67	3.00	4.67	4.25	3.25	4.20	3.25	
24	4.60	5.17	4.60	5.33	4.25	4.75	3.20	4.38	
25	5.20	5.17	4.40	5.00	4.75	5.50	4.60	4.50	
26	6.20	6.50	5.40	5.83	6.25	6.25	6.00	5.50	
27	2.20	3.00	3.20	3.00	3.00	3.25	1.40	3.00	
28	5.40	5.33	5.80	5.67	4.75	4.50	5.20	4.75	
29	s 6.00	5.50	4.00	4.00	4.25	4.00	4.20	4.50	
30	6.60	5.67	5.00	5.33	4.00	5.75	4.40	5.13	c
31	4.80	5.00	3.20	4.33	4.50	6.00	3.20	4.13	s
32	5.20	4.33	4.60	4.83	4.25	3.75	4.00	4.63	
33	6.20	6.17	5.80	6.33	5.25	5.25	5.40	4.63	
34	4.60	5.00	4.60	4.50	5.00	5.00	4.40	5.00	
35	s 5.20	5.00	3.80	3.33	4.50	4.25	1.80	3.63	s
36	5.80	5.17	4.20	4.67	4.25	4.00	3.80	4.13	
37	6.00	5.83	5.40	5.00	5.50	4.50	5.40	4.63	
38	s 5.40	5.67	4.00	5.17	4.00	5.25	5.60	4.38	
39	3.20	2.67	3.00	3.00	3.25	3.25	2.40	2.63	
40	4.40	4.33	3.00	4.17	3.75	3.75	2.60	4.13	
41	6.60	6.17	6.40	5.83	6.25	5.75	6.60	6.00	
42	4.80	4.33	3.80	3.83	4.25	4.25	3.80	3.75	
43	3.40	3.17	3.40	3.33	4.00	3.50	3.60	3.13	
44	s 6.40	6.17	5.40	5.00	5.00	5.00	5.60	4.38	
45	5.20	3.67	3.60	2.67	3.75	3.25	3.20	3.00	
46	5.40	5.83	5.80	4.67	5.00	6.00	4.00	6.13	c

c effect of contact p < .05; C < .01
s effect of sex p < .05; S < .01

4. Raw scores were factor analysed for each condition, with eigenvalues set at 1 (the default). This yielded 14 factor solutions. Because the last 6 factors accounted for only 20% variance and were particularly difficult to interpret, data were re-analysed specifying 8 factor solutions. These are given in Table 4.9. To simplify even further, only items loading $>.5$ have been reported.

8.4 DISCUSSION

The immediate and insurmountable problem was that all testing occurred under the aegis of Bristol University's Medical School, which was almost certain to weaken the impact of the Personal manipulations. Ideally, of course, subjects for this condition would have been approached in various non medical environments, but with present resources, this simply was not possible. Second, the very act of recruiting subjects probably contributed to this unwanted effect, since it inevitably identified E as a psychology student, which, in making a social category salient, might have been sufficient to trigger the reciprocal clinical social identification. Unsolicited evidence of this fear was given by a number of subjects who warned, that as recruits from the Medical School, they comprised an extremely atypical sample, which shows that they had their shared social identification in mind. Third, it is also possible that the experimental interest in retardates itself triggered subjects' clinical social identification, since this might be the most relevant self image within the situation. Taken together these points suggest that the personal manipulations might have been weak.

In this light, the fact that the superficially trivial difference in treatments has apparently elicited significant variation in subjects' perceptions and beliefs, generates both astonished delight from an experimenter's point of view, and disbelieving gloom from that of a "human being!"

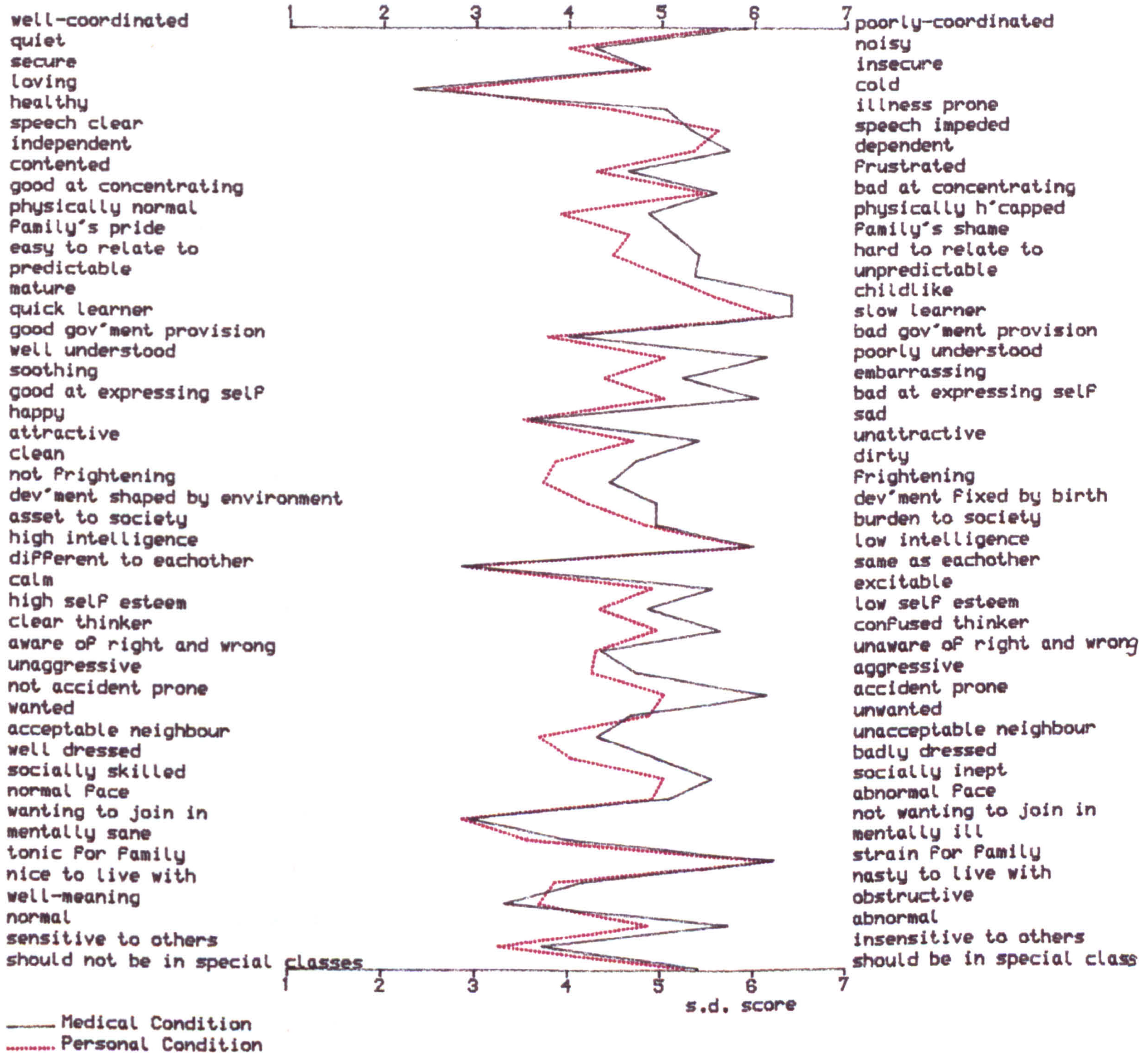
As predicted, medical students and doctors scored more hits in identifying retarded children when approached in a way designed to enhance their clinical social identification. This was not due to any difference in sensitivity ($p = .32$) but to an increased bias towards responding "retarded" ($p = .018$).

The processes behind such over-inclusion have been discussed more fully in Chapter 2.2 and 3.3a and by Tajfel (1972 and in 1981a, for example). They represent an attempt to preserve a value laden system of social categories, since misclassification of a retardate as normal 'contaminates' the preferred class and therefore, threatens the underlying value system. Over-exclusion, on the other hand, merely refines the class, and hence, preserves the values. On this basis, over inclusion in the retarded category might be generally expected, since "normal" is self-evidently preferable to "retarded" in natural usage. However, since the medical model of retardation is "essentially evaluative" (Mercer, 1973), normality being equated with the absence of pathology and retardation with biological dysfunction which is to be prevented or alleviated, higher over-inclusion was expected in the medical condition, because closer conformity to the evaluative medical ethos among subjects whose medical social identification is salient, was expected to introduce heavier value loading, and hence, greater perceptual bias. Interestingly, this reasoning is supported from a different orientation by Scheff (1966), who argues that medical

decision-making is underwritten by a fundamental code that it is much worse for a physician to dismiss an ill patient than it is for him to retain a well one. As mentioned in Chapter 2, Mercer (1973) points out that this means misdiagnosis is likely to be in the direction of over-inclusion in the "ill" category, a process that might well be more active in subjects whose medical social identification is salient, and it is interesting to hypothesise that this code itself is underpinned by (Tajfellian type) evaluative bias.

With respect to the second hypothesis, Figure 4.1 shows semantic differential data reflect clearly the negative evaluation of retardation hypothesised to be mediated by medical norms, especially on several items relating to pathology that might be related to them on an a priori basis.

FIGURE 4.1
SOCIAL IDENTITY MEDIATED BELIEFS ABOUT RETARDATE



In more detail, subjects in the medical condition believed retardates to be significantly more abnormal and unhealthy, ($p = .005, .007$) more childlike, (.02), embarrassing, (.008) and accident prone (.0009), a greater family shame (.04), worse understood, (.003), worse at expressing themselves, (.004) and less well dressed ($p = .006$). In addition, they rated them physically handicapped and dirty while those in the personal condition, rated them physically normal and clean ($p = .01$). Overall, the medical group evaluated retardates more negatively on all but 6/46 variables, which according to the sign test, is highly significant ($p < .0001$). The exceptions were, they rated them (insignificantly) less insecure, unwanted and unclearly spoken together with more loving, helpful and unlike, the personal nature of which seems least relevant to a medical orientation.

The belief that retardates are like each other is intended as a direct measure of stereotyping and in Study 1, it was more closely associated with negative evaluations. It therefore seems surprising that it is among the few items on which subjects in the medical condition were more positive, since these not only have more negative beliefs, but also, in sharing a salient social identity should show greater stereotypic perception. Perhaps the item varies qualitatively, referring to pathological syndromes for the medical, and individual differences, for example, for the personal group. It must not be forgotten however, that this

difference is both minimal and unreplicated.

There were four significant (treatment x method of testing) interactions: grouped and individual subjects in the personal condition believed retardates to be most and least bad at concentrating, respectively, ($p = .04$). Conversely the former believed they received best government provision while the latter believed them most unprovided for ($p = .04$). Similarly, individuals in the medical condition believed retardates most shameful to their families and most illness prone, while personal/individuals believed them least on both counts ($p = .01, .0009$).

The overall pattern of means, however, suggests that individual subjects in the medical condition tend to be most negative and subjects tested together in the personal condition most positive (chi-square = 57.39, d.f. = 7, $p < .0001$). Clearly, therefore, if individual and group testing had been incorporated as part of medical and personal treatments, conditions would have differed more sharply, which is exactly as Deutsch et al (1969) reasoned. In other words, it seems that group testing weakened the salience, and hence, the negative influence of subjects' clinical social identification. Because of its situational relevance, however, this seems counter intuitive, so other explanations should be considered: an obvious explanation is that students in the group situation were first-years and sitting together reminded them of their common lack of experience, so that diffidence in self-definitions as

medics, not interpersonal influences per se, weakened their shared social identification. It therefore seems wise to defer conclusions about the way group and individual testing might interact with personal and social identifications until further investigation with subjects secure in their social identification has been carried out.

The prediction that subjects in the Medical Group would show greater consensus in their judgements was not straightforwardly confirmed. Although there were 5 significant variance ratios, all in the predicted direction, (subjects with enhanced medical social identities showing greater agreement that retardates are abnormal ($p = .05$), loving, childlike, accident prone ($p = .01$) and bad at expressing themselves ($p = .05$)), this was the case on only 20/46 items, which is an insignificant trend in the wrong direction ($p = .23$). Clearly, however, there is consensus in the sense that those in the medical condition gave reliably more negative judgements, whole distributions of responses shifting in a negative direction, which means that the spirit of the prediction has been confirmed. Put another way, to generate within-group convergence, it is clear that opinions at the negative extreme of the distribution would have to be less negatively or even positively affected, which of course, is a selective effect not predicted by the hypothesised unidirectional influence. Perhaps therefore, statistical variance (to measure "convergence") is not a suitable measure of conformity in

this case, a point which will be aired again in the next chapter. Second, it is also possible that variation in the personal group was artefactually decreased, since the emphasis on personal identification might have made subjects more susceptible to evaluation apprehension, with the result that unsympathetic subjects gave more positive opinions. In other words, variation might have been reduced in both conditions, for different reasons. Clearly, a third control condition with no treatment would have been invaluable here. Separate analyses of contact and sex within conditions were performed, since these personal characteristics were expected to have relatively little effect (thereby contributing to reduced variance) within the medical group. Interestingly, the overall effect in this condition of contact, was exactly at chance level without a single significant evaluative effect. Thus, as hypothesised, the influence of this subjective experience seems to have been eliminated according to the clear demand that personal considerations have no place in clinical judgements. This also, of course, supports the argument and evidence of Study 1 (with respect to psychologists). Within the Personal condition, on the other hand, subjects personally acquainted with retardates rated them easy to relate to and happy while those without contact rated them difficult to relate to and sad ($p = .01, .03$, Sign Test). In addition, acquainted subjects were significantly less adamant that retardates are confused thinkers and should be segregated in school, ($p =$

.04). Overall, however, the usual pattern for contact subjects to give more positive evaluations was insignificant ($p_{26/46} = .23$) (and even reversed on one variable, since they rated them more unco-ordinated. ($p = .05$)). In other words, although the relative effect of personal contact within conditions supports predictions, the contrast is not striking, since contact effects were unusually small within the personal group, which it seems reasonable to suppose, might have been due to the unavoidable clinical influences that have already been discussed.

Predictions relating to gender effects were not confirmed at all. Within the personal condition the "usual" influence of gender was established significantly on 3 variables:

females rated retardates clean, aware of right and wrong and an asset to society whereas males rated them dirty, unaware and a burden ($p = .04, .03$ and $.009$). In addition, females rated them significantly more childlike ($p = .04$), which as discussed in Experiment 1, is not necessarily a more negative evaluation. Overall, they were more positive on 28/46 items ($p = .09$, N.S.). Within the Medical group, however, there was a more striking sex effect. Males rated retardates a significantly greater shame to their families ($p = .03$), more unattractive ($.005$), more abnormal, ($.009$) and of more abnormal facial appearance ($p = .05$). In addition, they rated them dirty, unacceptable neighbours with low self esteem, whereas females rated them clean, acceptable and were neutral ($p = .005, .03, .0002$). Overall, there was a

clear trend for males to be more negative (p 34/46 = .001).

Unlike the influence of personal contact, therefore, the effect of gender on judgements seems enhanced within the Medical Condition. This might be partly artefactual, because females were overrepresented in the personal group, but on post hoc reflection, it seems that the prediction itself may not have been valid, but overgeneralised from the clear demand characteristic that gender effects should be suppressed in clinical situations relating to *sexual matters* which does not necessarily mean that clinicians are expected to be asexual creatures. It is possible, therefore, that subjects conformed to their expectations of male or female doctors, which might have been more divergent than the effects of male versus female (person) in the personal condition. If this were the case, the lack of relative consensus in the former condition could be explained. This could be tested by asking subjects if they have different expectations for male and female physicians, or by seeing if consensus is greater in the medical condition separately within sexes. (This was not tried here, because the small uneven sample sizes suggest the additional expenditure of resources would not be justified.)

In parenthesis, these doubts regarding predicted gender effects suggest that it would be uneconomical to discuss (sex x contact) interactions within experimental conditions beyond mentioning that only one was significant (within the medical group males with contact believed retardates to be

most over dependent, whereas females with contact believed them to be least ($p = .02$), especially as, a single significant interaction out of 92, is easily explained by chance.

To summarise, the apparent elimination of personal contact effects, the pervasive negative influence on opinions and the bias towards responding "retarded" within the medical condition are interpreted as the result of conformity to normative expectations of what is appropriate for doctors, mediated by subjects' shared social identification as medics. However, there is no striking increase in intra-group consensus (as measured by standard deviations) relative to the personal condition, which means that the third prediction has not been straightforwardly fulfilled.

Debriefing sessions were both fascinating and surprising. Subjects were asked whether they had responded as "individuals" or "medics" and to quantify their position on an imaginary continuum ranging from 1 ("absolute medic") to 10 ("absolute individual"), which, of course, was intended to mirror Tajfel's intergroup and interpersonal behaviour continuum. It had been intended to use this information as a check on manipulations and also to see if there was any correlation with dependent variables, but the plan had to be abandoned because *all* Medical group subjects said they had responded as individuals (with the exception of two who said they had tried to be clinical which made them *more* cautious of misdiagnosing targets retarded - although their responses

did not differ from other group members - and three who did not answer). Retrospectively, these questions should have been formally posed on a questionnaire, since for the most part, subjects merely scrawled "individual" on their response sheets, although a handful went on to scribble unquantifiable messages that they would have responded in the same way under the Personal treatment because they lacked the experience to do otherwise, a point they also mentioned in general discussion. Three points arise from these disappointingly sparse results. Intuitively, the insistence that responses were personal, seems defensive. Clearly, the dehumanising attitudes of some doctors receives much "bad press" and consequently, no subject is likely to admit he was easily manipulated into behaving in this way. This seems more likely than the possibility that the influence of the medical social identification was subconscious and entirely impenetrable to introspection, even with the benefit of hindsight. Interestingly, while the majority of subjects (defensively?) condemned the experiment as impossible and unlikely, one or two remarked that their clinical identification would have been more active had they been recruited on leaving the wards, still wearing their white coats. The most important point is, however that the majority of predicted effects clearly occurred *despite* the Medical group's insistence on personal responding.

Third, some subjects seemed to imply they had to respond as

'individuals' since they lacked the experience to respond as clinicians, which suggests a readiness to conform without the "know how". This leads to the tempting conclusion that the experiment would have been still more successful had all subjects been qualified and practising and supports the idea that some subjects, specifically the first years, might have resisted conforming to normative expectations because they did not yet feel confident in their new social identification. On the other hand, it seems unlikely that as medical students, they would be unaware of medical norms, thus since they differed as predicted from personal group subjects, their self-reported lack of experience might simply have been to add weight to their insistence on personal responding.

Post-experimental data from the Personal group was still more sparse - only 12 (52%) answered at all, perhaps illustrating that unlike the Medical subjects, they were not motivated by evaluation apprehension to say they had responded as individuals. Of these, all but one said they had responded as individuals. Interestingly, the exception was the third most biased towards classing targets retarded ($B = 2.75$) but of course, a result from a single case can do no more than provoke thought. In contrast to the Medical group, a handful quantified themselves on the Medic - individual continuum (2 as 100%, 2 as 90% and 1 as 75% individual), but this bore no relationship to dependent variables.

Raw data were factor analysed,

in order to explore the multi dimensional
meaning of retardates for subjects in medical and personal
conditions.

TABLE 4.9

Multi-dimensional meanings of "retardates"

Medical Condition		Personal Condition	
FACTOR 1 (27.3% variance)		FACTOR 1 (21.7% variance)	
unaware of right & wrong	.85	noisy	.83
dirty	.85	(-acceptable neighbour)	.83
badly dressed	.80	unaware of right and wrong	.64
socially inept	.63	should be in special classes	.60
nasty to live with	.58	hard to relate to	.55
(-wanting to join in)	.55	excitable	.54
abnormal	.53	poorly coordinated	.52
illness prone	.51	(-wanting to join in)	.51
		bad at concentrating	.50
FACTOR 2 (14.4% variance)		FACTOR 2 (17.5% variance)	
poorly understood	.93	unattractive	.73
bad at concentrating	.75	(-happy)	.69
speech impeded	.67	frustrated	.68
accident prone	.59	poorly understood	.69
illness prone	.56	bad at concentrating	.66
nasty to live with	-.54	low self esteem	.66
unpredictable	.50	unpredictable	.63
		burden to society	.52
FACTOR 3 (13.5% variance)		FACTOR 3 (14.9% variance)	
well-meaning	.95	clean	.82
different	.77	sensitive to others	.74
sane	.65	not frightening	.65
happy	.62	physically h'capped/normal	.58
(-aggressive)	.54	well-meaning	.50
FACTOR 4 (12.5% variance)		FACTOR 4 (12.6% variance)	
dependent	.77	(-different)	.82
frightening	.76	confused thinker	.70
abnormal face	.69	badly dressed	.65
childlike	.66	socially inept	.55
confused thinker	.56	excitable	.51
FACTOR 5 (9.9% variance)		FACTOR 5 (9.9% variance)	
(-sensitive to others)	.76	dependent	.75
slow learner	.62	childlike	.63
unattractive	.59	family's shame	.60
low self esteem	.58	strain for family	.59
unacceptable neighbour	.55	unwanted	.53
noisy	.50		
frustrated	-.50		
FACTOR 6 (8.8% variance)		FACTOR 6 (8.8% variance)	
excitable	.73	illness prone	.81
socially inept	.64	abnormal	.75
dev'ment fixed by birth	.61	dev'ment fixed by birth	.51
poorly-coordinated	.57	strain for family	.50
strain for family	.56		
loving	-.55		
bad gov'ment provision	.59		

FACTOR 7 (7.3% variance)		FACTOR 7 (7.6% variance)	
insecure	-.87	accident prone	-.92
physically h'capped	-.68	embarrassing	.63
bad gov'ment provision	.63	abnormal face	-.53
FACTOR 8 (6.3% variance)		FACTOR 8 (7.0% variance)	
unwanted	-.75	low intelligence	.85
poorly-coordinated	.59	(-loving)	.61
mentally ill	.50	aggressive	.58
		(-well-meaning)	.57

Plainly, factor structure differs between groups. For example, only 2 out of a possible 17 items are common to Factors 1, and the following factors overlap to a similarly small extent. Nevertheless, it is impossible not to find the content of the factors - particularly for the medical condition - disappointing. Although Factor 1 contains "socially inept", "abnormal" and "illness prone", the presence of other characteristics mean it does not, by any stretch of the imagination, seem exclusively to reflect a medical model of retardation. Factor 2 includes "illness prone" and the "symptoms", impeded speech and bad concentration and it is interesting to hypothesise that "poorly understood" and "unpredictable" refer to a lack of medical knowledge about retardation. Factor 4 centres on retardates' dependency and Factor 6 primarily on negative symptoms, the intra organismic nature of which is emphasised by "development fixed by birth". Remaining factors however, do not seem directly relevant to a medical perspective, perhaps indicating that multi-dimensional meaning is less easily affected - or reliably measured - than evaluative differences.

Although such a comparison might not be valid because this is an 8 factor solution whereas that of Study 3 was 10 factor, comfort might be gained from the fact that there is some resemblance between predicted Factor 1 for doctors and Factor 1 in the present medical condition (as opposed to the personal).

The purpose of results from the personal group is to provide comparisons, since on the basis of Study 1, to combine acquainted and unacquainted subjects might not be meaningful. Thus, discussion will be kept brief. Factor 1 seems diffuse, but primarily seems to concern social acceptability. Factor 2 seems to relate to a dynamic aspect of retardates' personality: the less they are burdensome, unattractive and unable to concentrate, the more it is assumed they will be frustrated. Factor 3 apparently reverts to acceptability and interestingly, Factor 4 seems to represent the retardate stereotype, since its highest loading item considers whether retardates are like each other - the direct measure of stereotyping - and various stereotypic traits then follow. Factor 5 seems clearly to relate to the family, and a final interesting point, is that Factor 8 begins with the only appearance of "high/low intelligence".

To summarise, the multidimensional meaning of retardates seems to differ between medical and personal groups, which suggests that the conceptualisation as well as the

perception and evaluation of retardates is mediated through observers' salient self images.

Conclusions

This study evinced strong evidence that *being* a medic per se, does not mediate the negative evaluations, diagnostic over-inclusion and medical orientation that are associated with medical opinions about retardates. Rather, these seem to depend on subjects' *salient self definitions* as medics.

Clearly, this is evidence against the "bottom-up" view that personal characteristics which medics, on average possess, common experiences or the medical training itself determines their beliefs. Rather, the "top-down" social psychological view that the beliefs members of one group hold about another are determined by normative expectations through the shared, yet individual process of social identification, is supported.

The burning question, of course, concerns the extent to which the experiment generalises to real life. Important in this connection is "ecological validity", which intuitively involves the inclusion in experiments of real-life factors, on the assumption that these might increase generalisability. (For example, slides of real subnormal children were included in Study 2 although they looked normal, because this was a closer representation of the real world and made it seem more plausible that the demonstrated categorisation effects would actually generalise to real

subnormal children.)

Bronfenbrenner (1979) writes that ecological validity has no agreed definition, but suggests it usually refers to research carried out in natural settings. He rejects the implication that naturalistic research is necessarily valid and goes on to define ecological validity as

the extent to which the environment experienced by the subjects has the properties it is supposed or assumed to have by the investigator
1979, p 29

Thus defined, Bronfenbrenner continues, ecological validity is unattainable. Psychologists do not know how to determine the phenomenological field of their subjects and the problem grows out of all proportion if an attempt is made to sample testing situations in order to ensure they actually represent the real world. The concept, however, need not be abandoned: the closer the experimental to the real life setting of interest, the greater the likelihood subjects' experience of the two will approximate. Furthermore, enough idea of their experience to understand the significance of their behaviour can be gained, provided researchers have extensive knowledge about the subjects, the experimental setting and the setting to which they want to extrapolate. The major source of information is the subjects themselves, whose comments and interpretations should be sought.

Bronfenbrenner's notion of ecological validity is of little help in determining whether the present experiment generalises to real life. First, far from being directly

informative, subjects' comments for the most part, seemed to contradict their behaviour. Second, there is no basis on which to make a quantitative judgement of its ecological validity (medical students and doctors are likely to be representative of medics; similarly the setting was a medical institution and the slides, genuine, but the experimental task - by definition in the personal condition - was unlikely to approximate to real clinical judgements). Even if entirely ecologically valid, however, just as Bronfenbrenner rejected the implication that natural settings guarantee valid research, intuitively, only the *likelihood* of generalisability would be increased.

In a complex, scholarly article, Turner (1981b) gives voice to this intuitive disquiet. In employing variables as they occur in real life, ecological research might be theoretically spurious, because of the possible masking effect of naturally confounded factors. In other words, ecological validity can be at odds with experimental attempts to purify and isolate theoretically important variables.

The present study is a case in point. In real life, a salient medical social identification and *being* a medic are hypothesised always to be confounded when diagnoses about retardates are made. The present paradigm sought to unconfound them by creating a situation in which medics made judgements while their personal identifications were salient - a situation not ecologically valid, but theoretically

crucial. The crux of Turner's argument for present purposes, is that the generalisability of experimental data is not a matter of empirical representativeness, but of the *theoretical* analogue between experiment and real life. In other words, it is fallacious to assume that generality of experimental findings across settings that approximate to the real world are a basis for generalisability. The latter involves extrapolating to new situations and therefore, has a theoretical basis.

From this point of view, the generalisability of the present experiment becomes a question of its theoretical, not its literal correspondence to real life. Put another way, it is a question of whether medical social identifications are salient in clinical situations.

It has already been stressed that understanding precisely the conditions leading to salient social identifications and intergroup behaviour is only just beginning (see section 3 of this chapter). Nevertheless, since clinical interactions with retardates are, by definition based on that social category, they fulfill the conditions Oakes (1983), Tajfel (1981) and Brown and Turner (1981) regard as sufficient: they are cognitively salient, that is distinctive, useful, informative and relevant, a priori. Thus, it is suggested that doctors' self-definitions play a role in mediating clinical judgements about retardates in real life.

To go further, it is also clear that experiments in which

subjects respond to "retardates", the abstract social category, are intergroup by definition. More interesting are informal interactions. For example, "someone personally acquainted with a retardate" might be a salient social identification in an experimental situation where it helps provide meaningful responses to an abstract label, but in real life interactions between people, its influence seems less likely. Nevertheless, it makes perfect sense to imagine such interactions guided primarily by what the acquainted normal person thinks is appropriate, rather than by, for example, the personal needs and desires of the retarded victim on the receiving end. Indeed, it might be hypothesised that such interactions would be most likely when the individual derives great self-esteem as a "do-gooder", and it is interesting to construct similar imaginary scenarios. As Bronfenbrenner (1979) would say, "It all depends".

A key factor in such interactions, as yet unconsidered, is the retarded person himself. It seems obvious that intrusive stigmata are likely to increase the perceived salience of normal and social categories, and hence intergroup behaviour, which is an example of a passive transaction, since by his presence, the retarded person might modify the perceptions of others, and hence his own developmental environment. In this way, the individual influences his own behaviour. This is to ignore one thing. The retardate too is a human being and can influence the

influence he has on others. Furthermore, he can influence the influence they have on him. In other words, it is time to consider the last and most complex factor - the active role the retardate is likely to play in the present social psychological approach to mental retardation.

CHAPTER 5

RETARDATEES AND SELF STEREOTYPING

Introduction

....people you meet. They take me as if I'm not a smart person. And I mean they act like I don't understand things, which I do understand things. That's a terrible thing. I'd never do that to anybody. I don't know why I have to suffer like this. Sometimes I'd rather be dead than have people act like I'm not a smart person.

To recap, in the present approach mental retardation is conceptualised as a set of expectations associated with the social status, mental retardate, and because normative beliefs are related to the historical evolution of social groups in their cultural contexts, mental retardation is influenced by macrosystems. In Study 1, such expectations were examined for lay, psychologist and teacher social systems and, it was argued, they represent the social meaning of retardation and the role that shapes the behaviour of retardates.

Study 2 examined the perceptual effects of categorising an individual "retarded". It was found that the way an individual was seen, depended not only on him, but also on the way he was labelled. This was seen as further support for the social model because retardation was not intrinsic to its victim but also a function of observers' perceptual processes. In addition, it was argued that the effect of the label depended on the information it conveys, which in turn depends on the beliefs held by the perceiver. In this

way, categorisation was identified as a mechanism which provides a pathway for the macrosystem to influence directly the perception and hence treatment and subsequently, development of retardates.

In chapter 4, an attempt was made to give these ideas more ecological validity by conceptualising the observer as a human being rather than an automaton who mediates categorisation effects will he will he, and Turner's (1981, 1981a, 1982) social identification model provided a vehicle to understand not only how, but also, to some extent why and when observers would base interactions on normative beliefs. It was found that observers' behaviour in labelling children "retarded" and expression of normative beliefs about retardates depended on their own self definitions.

The focus of this chapter is the retardate himself. It is his turn to be conceptualised as a human being - not simply the passive recipient of, but also an actor in the foregoing processes.

1. Turner's referent informational influence

In the previous chapter, the theoretical framework, which is based on Turner's self-stereotyping, was left at the point where the notion of behavioural and attitudinal conformity among individuals sharing the same salient social social identification was introduced. To summarise, it was argued that individuals' knowledge about the groups they belong to - their social identity - is internalised as an aspect of their self concepts. According to situational relevance, facets relating to specific group memberships - social identifications - become "salient", as self-definitions are adjusted in order adaptively to construe the situation and regulate behaviour. Individuals belonging to the same social group, it follows, are likely to show conformity in self-definitions and behaviour in situations that enhance its relevance.

Turner (1981, 1981a, 1982) has delineated two processes whereby such conformity is enhanced. The first, which has already been mentioned, concerns the familiar perceptual effects of categorisation which apply to self and ingroup as well as the outgroups that are traditionally central in the literature. This means that individuals sharing a salient social identification will perceive themselves more like each other because each attributes the same criterial group characteristics to himself. In this way, they become self-stereotyped, that is, depersonalised, interchangeable group members rather than individuals because, the

functioning aspects of their self concepts is based on a shared social, not individual personal identities.

The second process concerns the desire for positive self esteem, which is accepted here as a fundamental psychological premise. Its place in Turner's theory has evolved through several generations of thought and begins with Tajfel's (1972) social psychological extension of Festinger's (1954) theory of Social Comparison Processes. Festinger had argued that individuals need to evaluate their attitudes and abilities and that when objective criteria are unavailable, they will make social comparisons with those of relevant others. In the case of abilities, Festinger continued, there exists "a unidirectional drive upward", that is, where values are involved, the individual has a need to evaluate himself positively.

In his extension of these ideas, Tajfel first broadens the role of social comparisons by putting forward the, by now familiar, argument that we have no means of discovering real "objective" criteria. He then argues that so-called "objectivity" may therefore be defined as a socially agreed lack of perceived alternatives and that comparisons are not social by default, but on the contrary, even the significance of so-called objective comparisons are social. Tajfel then applies these notions to his concept of social identity. Social groups, he argues, are evaluated through comparisons with each other and since social identifications

are an aspect of the individual, the fundamental desire for positive esteem becomes a desire for positive social identity. Just as the former is expressed through inter-individual, the latter is expressed through intergroup comparisons which, "are focussed on the establishment of distinctiveness between one's own and other groups". (1972, p 296.)

The relevance of these ideas to Turner's theory of self-stereotyping may now be sketched. Quite simply, the previous notion of behavioural conformity among individuals sharing the same social identification, has been given direction: when a particular social identification is salient, behaviours under its influence will tend to enhance the self-esteem of group members. (See also Tajfel and Turner, 1979; Turner 1981a and 1982).

Since Turner's work on self stereotyping is the pivot on which the present approach turns, it seems worth digressing to outline something of its social psychological context, where it is likely to have a major impact in three areas: intergroup relations, group formation and social influence.

I. First, the notion that the desire for positive self-esteem enhances conformity in individuals sharing a salient social identification by motivating them to establish positive intergroup differentials in their group's favour, has been developed into the theory of Social Competition, which Turner fully describes and explains in

his 1975 article. Essentially, this refers to intergroup conflict created by the desire for positive self-esteem, in contrast to the traditional view pioneered by the Sherifs (e.g. Sherif and Sherif, 1953; Sherif et al, 1955; 1961) that it is caused by incompatible group goals. In other words, self-evaluation, not self interest is the fuel, an alternative, Turner (1975; 1981) argues, masked by the fact that conflicting and superordinate goals always covaried with conflicting or co-operative intergroup behaviour, respectively in traditional realistic conflict research.

Turner (1975; 1981) cites an impressive array of support, of which only a few favourites will be mentioned. For example, Ferguson and Kelly (1964) found that groups of subjects working on identical tasks, assured of the same rewards, (i.e. with independent, non-conflicting goals), developed feelings of rivalry and behaved competitively when made aware of each other. Kahn and Ryen (1972), on the other hand, found subjects showed ingroup favouritism even when they anticipated co-operative intergroup interaction (i.e. had superordinate goals).

Perhaps the most striking evidence derives from the by now familiar, extensively replicated (Turner, 1980) minimal group studies. In the seminal paradigm, it will be remembered, Tajfel et al (1971) found that social categorisation per se was sufficient for intergroup behaviour which took the form of awarding more money to in than outgroup members. When analysed in detail, however,

realistic gain could not have underpinned this discrimination. Choices for in- and out- group members were not independent, but had to be made on matrices where the sum chosen for one determined that for the other, and unexpectedly, subjects preferred to award their own group a small sum, if by so doing, they could award the outgroup an even smaller one. The "rational goal", i.e. awarding as much as possible to the ingroup, did not conflict with, but entailed awarding as much - and more - to the outgroup but subjects ignored this, *creating* as it were, a situation of intergroup conflict. This flies in the face of traditional views and only makes sense in terms of social competition, since subjects clearly desired to *win* by a decisive margin, not to *gain*. As Turner (1975) argues, they used the experimental social identifications to enhance self esteem by creating a differential in favour of their own group (or more formally, by making a positive social comparison along the available relevant value dimension, money). This means they did not internalise the proffered social identifications as a matter of course, but actively used them to mediate the most adaptive behaviour in the experimental situation.

Two further studies strongly support this position: Turner (1973, reported in his 1975 article) found subjects did not identify with minimal groups when given the opportunity to make positive interpersonal comparisons, and in a later study, Oakes and Turner (1980) found that discriminative

behaviour in the minimal group paradigm resulted directly in raised self-esteem.

Turner's theory of social competition has been extended into a model of intergroup relations (Doise, 1978; Tajfel and Turner, 1979; Turner, 1975; 1981a), with the sobering aspect that positive esteem is universally desired and that social categorisation stimulates social comparisons and hence, its expression in actions and opinions that favour the ingroup. Thus, there will always be a tendency to conflict between groups that is not destined to be eliminated by non-conflicting goals like plentiful resources for all.

II. Second, and perhaps more relevant to present purposes, Turner's theory of social identification and self stereotyping forms the basis of a cognitive redefinition of the social group (fully described in his 1981a article) as an alternative to the more traditional view - that Turner calls the Social Cohesion Model - that a group is two or more interacting individuals who are mutually interdependent (e.g. Shaw, 1976).

Within this traditional view, Turner (1981a) explains, initial interactions might have occurred for a variety of reasons, "satisfaction of needs, attainment of goals or consensual validation of attitudes and values", and it is assumed that the resulting interdependence is expressed through mutual co-operation, attraction and influence - the classic group characteristics - and that a group, perhaps

with a well organised social structure, evolves as these stabilise. Thus, members are primarily bound by emotional bonds.

Turner's Social Identification Model, on the other hand, asserts that a group exists when individuals perceive themselves in terms of a common social category. Self definition, not mutual affiliation therefore follows as the key to group formation.

Convincing - if informal - evidence is provided by a consideration of professional bodies, races or even nations that cannot reasonably be thought to be based on networks of emotional bonds yet which clearly form large scale groups.

More formal evidence derives again from the minimal group studies, which demonstrated intergroup behaviour (and therefore, the creation of groups) in the total absence of variables normally associated with group formation.

However, since research has reliably indicated that perceived similarity engenders and increases liking, it was first necessary to eliminate the possibility that subjects assumed they were grouped together on the basis of some unknown similarity, in which case, the Social Cohesion Model could after all have accounted for results.

In a 2 x 2 design, Billig and Tajfel (1973), found assignment to minimal groups could be explicitly random and still result in group formation and discriminative intergroup behaviour. In contrast, subjects who were

divided on the basis of interindividual similarity - without the notion of groups being enhanced - showed no significant intergroup behaviour.

Similarly, Allon and Wilder (1975) found that subjects favoured dissimilar ingroup over similar outgroup members, and Turner (1981a) cites the remaining - as yet few - but persuasive studies.

Within his formulation, variables like extreme similarity, common fate, shared threat and proximity, which have been shown to increase affiliation (Hensley and Duval, 1976; Rabbie and Horwitz, 1969; Burnstein and McRae, 1962 and Feshback and Singer, 1957) function simultaneously as criteria for social categorisation, rather than as direct determinants of affiliation and hence group formation. More interesting, however, is the possibility that social cohesion *results from* social identification, because the by now familiar stereotypic assignment of the same criterial attributes to self and ingroup members, in enhancing perceived intragroup similarity, should result in increased mutual liking. Clearly, this is an *intragroup* not an *inter individual* phenomenon. Other "hallmarks" of intragroup relations, like mutual esteem, emotional empathy, altruistic co-operation and of course, attitudinal and behavioural uniformity can be similarly explained.

Because social categorisations extend self-definitions beyond the individual, Turner (1981; 1981a; 1982) argues, we

help other ingroup members because we perceive their needs as those of our social category and hence, as our own.

This, he continues, is "a simple and elegant mechanism for bypassing the supposed egotism of human beings" (1981a, p. 108). A more cynical interpretation, however, is that even altruism represents a cognitive extension of self-interest.

III. The notion of uniformity among members of social groups introduces the third area in which I believe Turner's theories will be important. Since social identity produces conformity, it is in social psychological terminology, a vehicle of social influence, which Turner (1981a) calls Referent Informational Influence. (Indeed, Study 4 and the coming Study 5 can be interpreted as preliminary empirical investigations of it.) Perhaps its most exciting theoretical aspect is that it is truly social psychological. As Turner and Giles (1981) point out, referent informational influence explains consistency and conformity of group behaviour in terms of shared, yet individual psychological processes. Brown and Turner (1981) take the argument further: collective interaction mediated by social identification can lead to the emergence of social structures within a culture, which in turn become determinants of individual psychological processes in a continual causal loop.

Traditional theories of social influence generally attribute conformity to the desire to be right, since it increases in ambiguous situations, or to the desire to win rewards, since

it increases when individuals wish to be liked by group members or approved by powerful others (Aronson, 1973). The former include Kelman's (1961) "internalisation" and Deutsch and Gerrard's (1955) "informational influence", whereas the latter, known collectively as normative influences, include Kelman's "compliance". Within referent informational influence, on the other hand, situational contingencies make relevant and hence, salient, particular social identifications in the individual's repertoire, and following the deductive aspect of Tajfel's categorisation theory, he assigns himself the associated norms he has learned, which are subsequently reflected in conformative behaviour.

Clearly, only referent informational influence provides a convincing explanation of conformity in situations where there are no ingroup members to copy, no ambiguity in the situation nor powerful other to mete out rewards. In parentheses, it is fun to note that in conforming to his own beliefs, the individual's behaviour might be wildly inappropriate, which of course, provides the basic material for many comic dramatists and reminds us that we may all be Eliza Dolittles at times.

To summarise and illustrate this brief, inadequate sketch, a facetious personal anecdote will be introduced. A more formal summary is to be found in Brown and Turner (1981).

I was in Germany in the mid 1960's when England won the

Eurovision Song Contest, (which even then, I considered the lowest form of entertainment). Nevertheless, I remember the enhanced feeling of being English and my subsequent attempts to recreate English "mod" fashions, despite the fact that my hosts, far from being impressed, thought them hilarious.

It does not require Turner's social identification theory to realise that I became overtly English - instead of trying to appear German - in order to enhance vicariously my self esteem. The fashions served a dual role: they were an attempt to reinforce the positive differential already established through the contest (!) and, they expressed what I thought was appropriate behaviour, although there were no ingroup members to copy or to approve my actions.

Still funnier, school fellows on the same exchange, whom I met some days later were behaving in exactly the same manner. Together we exemplified the conformity that Turner's self-stereotyping predicts.

We rushed together with a chauvinism that must have been deeply offensive to onlookers. At home, however, nothing would have been more mutually insulting to be considered like our school fellows or even to admit that we knew each other, yet there we were, flaunting a togetherness which was clearly mediated by our shared salient social identification and not by pre-existing affiliations.

In encompassing the behaviour of a party of teenaged schoolgirls, Turner's model is indeed of epic power!

On a more serious note, through processes of self categorisation and self stereotyping, referent informational influence is the vehicle whereby Mercer's social model of retardation is to be extended into the present social psychological model of retardation, in which retardates are not simply those who are believed retarded, but those who believe themselves retarded - or put more precisely, those whose behaviour is mediated by the knowledge that they are members of the social category, retardates. Thus, retarded behaviour, it is argued, can be the outcome of a functioning retardate social identification, rather than a manifestation of intra-organismic pathology or a direct result of the treatment and behaviour of others. Thus, the present approach to mental retardation has become truly social psychological.

Before examining the implications of this position in more detail, it seems worthwhile considering how a retardate social identification might evolve as part of an individual's self concept.

2. Social Identification and the self concept of retardates

The first step in the present social psychological approach to mental retardation, is to consider how a retardate social identification might develop. The nature and content of the infant's self concept is, of course, speculation. Classic writers on the subject suggest that very young children have little idea of what is self and not self. Piaget (1954), for example suggests that the child's self concept evolves from an "undifferentiated absolute" as he learns to distinguish himself from the outside world, and it is interesting to wonder if infants learn that the entities they can control directly are self, as opposed to the external objects they cannot influence at will. As Burns (1979), argues, it seems reasonable to suppose that a body image - or cognitive diagram of the body - is probably the first element of self concept to develop.

Severely impaired children who show little motor activity are likely to be exponentially disadvantaged, since reduced movement is likely to result in an impoverishment of the self-stimulation necessary for already impaired cognitive structures to form a body image but there seems little reason to assume different self-concept development at this stage for children destined to become "subculturally retarded".

As the infant develops, experience extends to include interactions with others or in Bronfenbrenner's (1979)

terminology, microsystem influences, which must contribute to the growth of self concept. Language development is clearly a milestone in this process. Indeed, the self concept (as object) often seems envisaged as a set of covert verbalisations, and Sherif and Cantil (1947) go so far as to argue that learning the word "I" is the genesis of self concept, whereas others like Burns (1979) imply that the young child's particular difficulty with pronouns reflects his inability to distinguish self and others. Cooley (1912), on the other hand, suggested that such difficulties arise because pronouns cannot be imitated directly, but need "translating" for use from the child's perspective, an explanation supported by a doctoral thesis (Stedmon, 1983) which shows that children have similar difficulties with deitic spatial prepositions. Whatever the truth, possession and use of pronouns must reinforce self-other divisions.

It seems clear that mentally impaired children will be both disabled and handicapped in this process. In their national survey of 15,000 children, Butler et al (1983), for example, found severely subnormal children were 37 times more likely to have language difficulties than their normal peers, while as early as 1959, Rosenberg found adults used oversimplified, non-stimulating language to children they believed retarded. In other words, impairments are likely to interact and transact with the linguistic aspect of the child's microsystem.

There seems no reason to assume abnormal language based

self-concept development in children destined to become retarded at school, except in the sense that the vast majority of them are from the lower classes (Kushlick and Blunden, 1974) where according to Bernstein's controversial arguments, (1970) the linguistic environment might be impoverished.

Particularly interesting in the language context is Mead's (1934) suggestion that true self conception begins when the child learns his name and thus creates an identity, which following Erikson (1968) is understood to involve recognising self and being recognised by others. The idea becomes fascinating, if dangerously metaphysical, when linked to Mercer's (1973) argument - outlined in chapter 2 - that the question "what is it really?" is a nonsense question because entities have no name and belong to no class until we put them in one. Perhaps this can be applied to humans. Indeed, it is a feature of Celtic mythology, where in one Irish legend the nameless hero wanders lost, unfulfilled and unable to find his destiny until - by chance - he is caught stealing a pig and named "Cuchollon" - Little Pig Stealer. The giving of new names to religious initiates often symbolises rebirth and in this context, the implications of the marriage ceremony, which strips the woman of her own name and gives her that of another, are unsavoury food for thought.

Such notions embedded in folklore do deserve serious consideration, particularly as Wolfenstein (1968) found that

children whose names were changed, frequently become disturbed, as if their developing sense of self depended (at least in part) on them.

Cruelty of children to each other is well known and researchers like Jones (1972), Siperstein, Budoff and Bak (1980) have noted that derogatory nicknames are quickly attached to those of stigmatised appearance or who fail to keep up with peers. Burns (1979) argues that names are often converted into self-conceptions which generalise to define the whole person and his behaviour. From this point of view, the names that retarded children learn to associate with themselves are clearly likely to introduce the knowledge that they are retarded into their self concepts.

Language cannot be separated from the feedback from others, which Burns (1979) identifies as the third source of the individual's self concept - an idea that Cooley (1912) expressed in his notion of the "looking glass self".

Parents, Burns continues, almost always provide the individual with his first source of information. He argues that the infant learns to value and desire the love and esteem of others, since parental care - i.e. the rewarding fulfillment of basic needs - is accompanied by signals of love. The internalisation of parental love is a source of individual self esteem, and through classical association, arguably, a behaviouristic explanation of our desire for it. Evidence for the first proposition is to be found as early as 1939 when Stott noted that children whose parents were

accepting and loving thought more positively about themselves, as replicated later by Coopersmith (1967).

Feedback from parents not only provides children with self-evaluation, but also with the content of self conceptions. Jourard and Remy (1955) and Helper (1955) for example, show that children's self concepts are similar to the view they think their parents have of them and Burns (1979) notes that even casual parental comments can "be converted in the child's mind to vital self-conceptions" (p. 15).

Although direct evidence seems lacking, it is reasonable to suppose that feedback from parents frequently provides children with the knowledge that they are retarded. For example, Rondall (1977) found mothers of retarded children used more requests and imperative sentences and solicited leadership less to their children than mothers of normal boys and girls. In some instances, feedback might even include feelings of rejection, since, for example, Meyer (1980), somewhat surprisingly, found 83% of a sample of retardates' parents favoured institutionalisation over desegregation. Other parents might provide a child with unstable and confusing information as their "apprehension, anxiety, alarm and bewilderment" (Booth, 1978) over his disability unfolds.

In more detail, Booth's touching analysis of 46 case histories shows all but 2 severely handiapped babies were

infact "normal" until their second year and beyond, since parents and frequently doctors explained away retarded development, particularly when there was some physical handicap which served as excuse. Diagnoses, he shows, were the result of anxious and insistent negotiations when parents could no longer accommodate their children's behaviour within this strategy, and their babies, it might be imagined, had become literally, stateless persons. Subsequently parents reinterpreted their infant's behaviour, and it is reasonable to hypothesise that their reactions changed accordingly. In other words, it seems important to point out that feedback does not simply bounce off others like waves off a rock, but is more likely to be a complex transactional affair between parent-child interactions at the microsystem level; interactions in other settings, like professional consultation rooms at the meso system level - (or in a negative sense, since Bronfenbrenner (1979) points out that parents with retarded children frequently absent themselves from social intercourse); at exosystems levels, in the decisions taken by parents and doctors or professionals at case conferences and finally, at the macro systems level as sets of ideologies become psychologically relevant.

Finally, still other parents might deny their retarded child feedback altogether, in the belief that he is incapable of assimilating it. Clearly, the situation is extremely complex and must vary from case to case, but in general, it

seems likely that those who believe their children are retarded will react in a way that transfers this information to them.

As the child ventures beyond his family circle, interactions mushroom and so increase massively feedback from others. Kirchner and Vondraek (1975) found that 3 to 5 year olds already identified peers and siblings as liking them more often than they identified their parents, which suggests that parents' central role might be relatively short lived. In a further interesting study, Wooster and Harris (1973) predicted and found that highly mobile children of service families had impaired self images. Such children, they reasoned, suffered frequent changes of teachers, peers and neighbours and hence received disrupted feedback on which to build self conceptions. Finally, Burns (1975) showed how the individual thinks others see him correlates highly with how he sees himself.

In a number of studies, e.g. ^{Goodman,} Gottlieb and his associates, Gottlieb and Harrison (1972) have noted that retarded school children are ostracised by their peers, which is likely to leave them in little doubt that they belong to a negatively valued social category. Indeed, feedback from schoolmates might provide ESN children with the first indication that they are not "normal" in the world outside their family circles.

An interesting study (Farina, Thaw, Felner and Hust, 1976)

it will be remembered, warns against assuming that negative attitudes mean negative feedback, since in their learning experiment, subjects punished a stooge for his mistakes far less when they thought he was retarded. Analogous kindnesses in real life might provide retardates with the false belief that they perform rather well in learning situations. On the other hand, Guskin (1963) notes that "normal" people tend to take over retardates' work and responsibility - kindnesses which might provide self-perceptions relating to inability and incompetence and reduce opportunities for acquiring competence and self-esteem.

From the present viewpoint, diverse reactions of others and groups of others are likely to be the source of the child's developing personal and social identity. It is fascinating to speculate that the dichotomy between the former and a retardate social identification might develop in situations like real life labelling experiments. For example, consider the experience of the stooge in Farina et al's study, or extrapolate from the slides of children in Studies 2 and 4. Exactly the same individuals were perceived and reacted to quite differently when observers thought they were retarded. This suggests, that in situations where their retardation is salient, individuals will receive different feedback on which to build self-conceptions, (which, it is worth emphasising, is likely to be stereotypic in nature) whereas, in other situations, it might relate to other social or

personal identifications. This is supported by Burke and Tully, (1977) who suggest role identities are the meanings individuals attach to self as object in social situations which develop through interaction with others.

Clearly, this must be a massively complex process, not only interacting with the self-definitions of others, but also transacting with the individual. Thus, children who are not generally categorised probably develop personal and social identities like "normal" children, apart from a relatively compartmentalised retardate identification acquired in part of each school day. At the other extreme, some profoundly handicapped children are unlikely ever to be seen as anything else and consequently might receive little or no feedback at all.

"the effect that these people have on the rest of us: the sense of nothingness they evoke.....we wonder whether they are human at all, in any way like us. Our interaction with them seems so minimal.....we do not know who we are for them or what they are for us. Is there any mutual identity we can establish, any reciprocity between us, and if there is, do we want to know about it?
Ryan and Thomas, 1980, p. 13

These ideas link directly with Bronfenbrenner's (1979) 29th hypothesis that "development is enhanced as a direct function of the number of structurally different settings in which the developing person participates in a variety of joint activities and primary dyads with others, particularly when these others are more mature or experienced", since it seems clear that the more impaired an individual is, the

narrower range of settings and joint activities he will elicit and hence, the less he "produces" his own development (Lerner and Busch-Rossnagel, 1981).

Since the retardate is himself a part of society, he is likely to learn to interpret the environment as others do and to assimilate his anticipation of their responses as a source of behavioural control and self esteem, an idea which Mead (1934) encapsulated in his "generalised other", and which might be linked with Bronfenbrenner's macrosystem influences. This is illustrated by Staffieri (1957), for example, who found that six year old boys could pinpoint their own body types reasonably accurately, already preferring athletic physiques and associating stereotypic expectations with body shape. A fat child is therefore likely to receive negative feedback and also to be socialised according to cultural norms, but since he is a member of society himself, he will have internalised the same standards and thus, will most likely repeat the process in microcosm. In other words, as a child is socialised, he learns to evaluate himself against cultural norms and to extrapolate about himself from cultural expectations.

The notion of a generalised other, though perhaps introducing a complicated extra piece of jargon, is centrally important here, because to use some more jargon, it represents the internalisation of cultural expectations, that is, macro system influences or what were termed "demand characteristics" in the previous study, and linked to

Turner's referent informational influence, embodies the source of criterial attributes a child will learn to assign himself when a particular social identification is salient. In plain English, a child will develop expectations about groups of people, and if he perceives himself a member of one of them he will apply the expectations to himself.

The "generalised other" and "looking-glass self" are perhaps misleading since they imply that the individual is a tabula rasa whose self-conception, fundamental desire for positive self esteem and internalised standards are provided by others. This is contrary to the present transactional view of development to which Cooley's (1912) symbolic interactionist approach more closely approximates. This suggests that the individual's response to the reactions of others is shaped by the way he interprets them, but that the meanings upon which his interpretations are based are the product of social interactions, which *themselves* are modified directly by his behaviour and indirectly by his interpretation. In this way, self and others are mutually dependent, or as Cooley rather beautifully puts it:

The notion of a separate and independent ego is an illusion.

p. 5

A small scale example illustrates this difficult point: Parental reactions have been mentioned as a potent source of the infant's self-perceptions, but clearly their effect depends on what the child makes of them, which, in turn, might be based on a "family culture" of shared meanings that

child and parents developed together.

This completes the present speculations on how a retardate social identification might develop as part of an individual's self concept. It is a massive understatement to say the process must be headspinningly complex, and a comprehensive summary seems impossible. Wooster's approach (1970), however, is a useful peg on which to hang the major points: First, his premise that social adjustment depends on self-perceptions, is agreed with and extended to include a wider range of behaviours. Second, the importance of cognitive categories as the fundamental system on which perceptions are based is also in accord with the present approach. Third, there is no reason to disagree with his argument and empirical finding that retardates have less differentiated self-concepts and hence class a wider range of stimuli as equivalent, which explains their failure to make finely tuned social responses. Even his observation that differentiation correlates with IQ, is not necessarily to be found fault with. Contention arises when it is implied that IQ *causes* impoverished differentiation. By now it should be clear that the development of a retardate's self concept is seen as an immensely complex transaction with cultural expectations and reactions of others, and not just the result of his impairment.

3. Patterns of acceptance:

Referent informational influence and retarded behaviour

It is now possible to consider in more detail some implications of the present approach and to state the central hypothesis of the present social psychological model of retardation: In certain circumstances, an individual whose self-concept includes the knowledge that he belongs to the social category, retardates, will categorise himself in terms of that group, in order adaptively to respond. At such times, his retardate social identification will be salient, which means that the part of his self-concept concerned with membership of that category mediates his behaviour. He will then assign himself, the characteristics he has learned to associate with retardates, which as the previous section indicated, are likely broadly to mirror relevant cultural beliefs and therefore, to resemble those found in Study 1.

Thus, in situations which enhance the salience of an individual's retardate social identification, self image and behaviour should converge towards a retardate stereotype, and retarded behaviour, it follows, is role- and not necessarily impairment- or disability- determined.

Previously, others' beliefs about retardation were identified as possible sources of handicap. The present hypothesis provides a vehicle to carry the argument into the self-concepts of retardates and hence, it provides a means whereby retardation can be viewed as active, self-generated

(Lerner and Busch-Rossnagel, 1981), handicap.

As in Mercer's view, the 'recipe' for defining retardation is seen as culturally dependent so the same individual or behaviour can be retarded in some situations and not in others. Here, however, this is not only due to differences in prevailing social systems, but also, to self-generated changes in the salient aspect of self-concept. This is because retarded behaviour is seen as behaviour mediated by a retardate social identification and a retardate as an individual whose retardate social identification is salient and who is therefore created by an act of self-definition. Thus the same individual or behaviour can be retarded or not within the *same* situation.

Despite these differences, Mercer's model and the present probably co-incide in practice because individuals are likely to have internalised cultural norms, and therefore, to label themselves as others would.

The major advantage and purpose of what could be given the cumbersome title "the referent informational model of retardation" should now be obvious. According to the medical model, amelioration lies principally in scientific breakthrough. For Mercer, loci of intervention have mushroomed to include the beliefs of others. In the present model, however, amelioration may be self initiated. A retardate can become "normal" through a change in self-definition.

Of course, it is not hypothesised that impairments will magically disappear. Rather, the individual will be freed from the handicapping effect of criterial attributes like low intelligence and incompetence that referent informational influence predicts he will assign himself, should his retarded social identification be salient. Such attributes according to Turner (1981a) will affect behaviour directly and in addition, metacognitive attributions indirectly affect it (Hagen, Barclay and Newman (1982)).

Before continuing, it is sensible to point out that profoundly impaired people are at the limits of the present approach, because according to Ryan and Thomas (1980) they may have no self-concept at all, and clearly, if this is so, they cannot be handicapped by beliefs about themselves. If they do have a self-concept, it is unlikely to be widely differentiated, because they are unlikely ever to receive feedback undominated by their impairment. If this is the case, arguably they are the most handicapped of all.

However, such speculations stand at the limit of the present approach, which is far more relevant to retarded people who also have personal and a repertoire of social identifications.

So far, implications have only been considered at an individual level, which is ironic, since retardation is seen primarily as a group level phenomenon.

According to referent informational influence, individuals sharing a salient retardate social identification will assign themselves the same criterial attributes, resulting in increased behavioural and attitudinal conformity which will be further enhanced by the stereotypic effects of categorisation, directly (because retardates will perceive themselves more like other ingroup members) and indirectly, (because perceived intra group similarity of and therefore, behaviour towards others like doctors, teachers and "normals" will also be increased.) Hallmarks of 'group belongingness', it will be remembered, including mutual liking, admiration and empathy, follow from this increased similarity, and in behaving and construing self and environment in terms of the same social identification instead of personal identities, retardates will tend to become depersonalised, interchangeable exemplars of the social category rather than individual people - living embodiments of the retardate stereotype, in other words. On the evidence of Study 1, the precise pattern of behaviours towards which retardates should converge, is likely to depend on the prevailing social system.

From the previous chapter, it will be remembered that a comprehensive understanding of the conditions leading to behaviour mediated through a social identification, though being developed, Oakes (1983); Tajfel and Turner (1979), is not yet complete. The latter write, for example, that discovering the precise conditions in which one set of

states rather than another will be adopted, is a long term research task. Sufficient for present purposes, however, is Oakes' first conclusion that "the mere cognitive salience of social categories can result in behaviour which is based on group membership" provided there is at least the potential for the individual to evaluate himself positively. Common sense suggests that a salient retardate social identification offers precious little opportunity for positive evaluation and it follows therefore, that impaired individuals are likely to be retardates less often than researchers, for example, might think! Patterns of resistance, however, form the subject of the next section. The present theme is what might happen when the retardate identification is salient.

Tajfel (1974); Tajfel and Turner (1979) caution that pure intergroup behaviour; that is, behaviour *entirely* mediated by a social identification, is a hypothetical extreme which is unlikely to occur in real life, although fighting soldiers, they point out, provide an almost pure example. It seems clear to me that institutionalised retardates most probably embody another. The relative newness and specialisation of this idea means that evidence is exploratory and anecdotal. Taken as a whole, however, it is persuasive.

Thomas (1978) argues that placement is a specific socialising experience because it involves exposure to extreme conditions and involuntary association with similarly handicapped others. In Goffman's (1961) famous

words, institutionalisation entails a series of abasements, degradations, humiliations and profanations of self.

Indeed, by definition, institutions for the retarded are predicated on the attributed characteristics of that social category. Thus, they fulfill Oakes' criterion and probably initiate intergroup behaviour mediated by the retardate social identification.

Goffman's classic essay seems particularly relevant to the present approach, and deserves a closer look. His notion of 'self', for example, seems specifically to refer to what is free and idiosyncratic and therefore to resemble personal identity. Hence, entry into a total institution (that is one whose objects and products are people), amounts to an assault on personal identity and - by default - an emphasis on a relevant social identification.

This interpretation is supported more strongly when Goffman goes on to identify four characteristics that seemed, intuitively to him, to distinguish total institutions. First, sleep, work and play occur in a single location, under a single embracing authority, so that the distinctiveness between different spheres of life is broken down. Second, inmates are treated as a group and required to do the same thing together. Third, a rigid daily routine is imposed and fourth, these characteristics form a single plan, designed to fulfil the official aims of the institute. Well over a decade before the models on which the present

approach is based, Goffman seems to have delineated exactly the intragroup conformity, deindividualisation, depersonalisation and emphasis on administrative categorisation which might be expected to eliminate personal identity and make salient a retardate social identification.

Many other classic writings of the 1960's and early 1970's can be interpreted as further support for the present position.

Tizard (1964) for example, writes "The pattern of residential care for the mentally handicapped, laid down in the 19th century, has not changed much in the twentieth". Typical institutions (like The Fountain Hospital, just outside London), house upwards of a thousand inmates in some isolated rural spot. All services are provided on site, and visits from "normal" outsiders are difficult or impossible. Homogeneity of grouping, he continues, is a primary problem. Non-speakers, for example, are often placed together in wards where over-burdened staff do not bother to talk, and the most serious effect of inadequate facilities and overcrowding, he argues, is deindividuation. Staff are simply unable to give personal care, and space limitations mean personal possessions are banned.

Such impoverished experience most likely limits ability directly, but clearly it must also prevent development of virtually any self-concept other than a shared retardate social identification predicated on the institution.

Therefore, deindividuation will not only be imposed externally, but also, internally through the self-concepts of inmates, in a sad vicious circle.

In addition, Tizard describes the constant routine and uniform experience of young inmates, whose lives are governed by ward practice, rather than personal needs. Most striking, children are "lifted" five times nightly - i.e. woken up, taken out of bed and sat on a lavatory, in an attempt to avoid bedwetting. Approximately an hour a day, Tizard estimates - or over 4% of their lives - was spent in trying to pass water, to please someone else. Clearly, such treatment must serve virtually to eliminate any sense of personal identity. Indeed, through referent informational influence, self-concepts should mediate appropriate behaviours, which could even include enuresis and encopresis, despite "lifting".

Similarly, King, Raynes and Tizard (1971) argue that residential care for mentally handicapped children compares unfavourably with that provided for "normal" deprived children. Organisational differences rather than differences between normal and subnormal children, they found, seemed to account for contrasts in child management. Taking Goffman's approach as starting point, they envisaged a continuum between institutional and child-oriented practices, which does not simply represent a conflict between institutional efficiency and individual

considerations, because, as their studies progressed, they found many practices that denied individuality, but were neither convenient nor efficient.

In order to operationalise the continuum, they concentrated on 4 areas:- **Rigidity of routine** considered the flexibility of practices across individuals, situations and time, and was assessed according to whether changes were made to accommodate unusual events and individual needs, or whether set times existed for activities. **Block treatment** considered whether inmates were regimented as a group or whether they were allowed individually to proceed. **Third, depersonalisation** assessed opportunities for personal expression and initiative, by checking for personal possessions and privacy. **Finally, social distance** considered the separation between staff and children in activities and accommodation, which was assessed by ascertaining whether, for example, staff ate and watched TV with children and allowed them access to their rooms.

Using this approach, King and Raynes (1968) devised an interview schedule of 30 items with a possible score ranging from 0 (entirely child centred) to 60 (entirely institution centred.) Intuitively, this scale could have been devised with the present approach in mind, since it explicitly concerns depersonalisation, intragroup similarity and intergroup dissimilarity - the very factors that might predict salience of the retardate social identification, but sad to say, its application was not - King, Raynes and

Tizard were interested in differences between institutions, rather than the behaviour or self-concepts of inmates.

Interestingly, however, they found scores from a subnormality hospital were significantly higher than those from a paediatric unit, which supports the present argument that institutions for the subnormal are most likely to trigger intergroup behaviour.

More recently, Eyman, McLain, Miller and Silverstein (1977) note the lack of systematic relationships between physical characteristics of institutions, including size and staff/patient ratio, and inmates' behaviour. They therefore attempted to examine the relationship between residential environments (quantified by a version of King and Raynes' scale, and a second similarly oriented measure), intensive training programs and adaptive behaviour. Subjects were the inhabitants of two American State Institutions and of community facilities like convalescent hospitals, foster homes and hostels. Although the paradigm is complex, since subjects were grouped according to age, type of placement and level of impairment, results indicated a clear general trend: environmental measures accounted for more change in adaptive behaviour than treatment programs. According to the present view, these results are easily understood, if it is hypothesised that subjects' self-definitions played a role in their behaviour, since those living in personally-oriented environments were less likely to be handicapped by a retardate social identification, whereas

such a self-image was likely to be enhanced by participation in a behaviour modification program.

Similarly, Zigler and Balla (1977) found institution-centred regimes, exactly as referent informational influence predicts, resulted in increased behavioural conformity among inmates.

Still more support comes from Gunzburg and Gunzburg (1973) who focus on the physical environment typically endured by institutionalised retardates. They describe the transmutation into bricks and mortar of depersonalising institution centred policy. Whole colonies, they point out, are designed round central toileting blocks, where inmates can be sluiced down in groups at pre-set times. They even cite a planning committee in which the central concern was the external appearance and acceptability to locals of a projected institution. Less extreme, they note that lighting and heating controls are almost invariably under lock and key and turned on when policy dictates, not when somebody feels chilly or wants to stay up late. Similarly, dormitories, some grim and cheerless, others bright and colourful, are generally uniform without facilities for personal expression.

Finally, there is also some evidence that staff are typically institution centred. Gilbert and Levinson (1956) for example, found aides were very high in authoritarianism and oriented towards custodial care. Such attitudes, from

the present point of view, are also likely to result from referent informational influence and not "personality."

The idea that staff and hence, staff/patient interactions are likely to be depersonalised by the demands of total institutions, is supported by Pratt, Raynes and Roses (1977) who found that institutional staff who perceived themselves excluded from decisions about patient care and administration and whose duties tended to be confined to a single role had lower morale and gave more institution-centred care.

In view of the general consensus concerning its importance, writes Zigler (1966), it is amazing that more work has not been done to investigate the effects of institutionalisation on retardates. Today, his comment seems to hold, and in the absence of further more direct evidence, the foregoing must serve as preliminary support for the idea that institutionally oriented placements are likely to enhance a shared retardate social identification, and mediate behaviour at the intergroup end of Tajfel's continuum, conforming to appropriate (i.e. incompetent) patterns that are role, not ability-determined.

A number of studies that seem to concern the interpersonal end of Tajfel's continuum rather than institutionalisation per se, may also be interpreted as support.

In the classic Brooklands experiment, Tizard and his associates took 16 severely subnormal children aged 4 to 10

years (average seven-and-a-half) and whose mean non-verbal mental age, 2 years 10 months, far exceeded their verbal age, from the institution-centred environment of the Fountain Hospital. The idea was to provide them with the type of care afforded "normal" deprived children.

Accordingly, they entered a specially developed unit with an atmosphere as homelike as possible, and were divided into 2 family groups, each with its own 'mother', sitting room and eating arrangements. They were given outings, treats and an individual developmental approach in a warm permissive atmosphere. Play, characteristic of 'normal' nursery schools, was the first lesson, but most important were the conditions known to promote happiness - affection, fairness and security.

When institutional constraints were first removed, Tizard (1964) continues, most children showed behaviour disorders, the worst affected being the longest institutionalised. Soon, however, a qualitative behavioural change took place - the children began to play like normal children of their own age and even to help around the house. Similarly, their emotional adjustment improved, they grew more independent and most important, began to "express individuality" (p.11). In addition they showed a significant average increase in verbal mental age of 14 months, compared with only 6 months shown by controls left at the hospital. Indeed, according to Tizard, they showed "language behaviour remarkable for children so backward" (p.134).

behaviour after two years.

The same framework can be hypothesised to underpin the Gunzburg's (1973) argument that deliberate environmental manipulation can improve mental function, social competence, happiness, stability and IQ. Traditional approaches, they argue, have lead to remedial programs directed at school like subjects and social competence, for the benefit of others, with virtually no interest in personality development, except for old fashioned "character building" usually with an imposition of coercive standards far stricter than those applied to normal people.

Much normal behaviour may be possible, they continue, if only subnormal people are given the chance to develop as human beings.

Their approach, "personalisation", involves giving the subnormal freedom of choice, an opportunity to develop an awareness of personal tastes, to own possessions, to learn and experience the practicalities of living, and privacy. The key, "normalisation", involves creating patterns of existence as close as possible to norms of society, which, they continue, can only produce normal living patterns if the subnormal are made aware of themselves as people. Because of their interest in physical environment, they continue with descriptions of institutions that are as homelike as possible, where opportunities are given to understand contexts for appropriate behaviour, where, for

example, lights and heaters are visible and usable, not unseen and centrally controlled, and where meals have to be shopped for, prepared and cooked, not simply eaten.

Interestingly, their theories were put into practice at Coldeast Hospital in 1971 (Gunzburg and Gunzburg, 1973), where inmates, including 40 wheelchair patients and 45 who were incontinent, were given a new environment that had been reshaped to be 'normal'. Within 6 months, only 4 remained in their chairs and 10 were incontinent. Of course, improvements in enthusiasm, staff morale and the environment per se must have contributed directly to these changes, but in addition, they are seen as the result of a reversal of institution-centred practices and consequently, the establishment of individual personal identities, as opposed to a shared retardate social identification, and role-determined behaviour.

I agree with their statement, that given this approach, no-one knows what improvements may be possible.

Parnicky (1977) embarked on a program which fits exactly the present view. Beginning with the premise that limitations may reside in learning environments rather than retardates, he chose 40 out of a sample of 55 men (aged 18 to 30 who, on average had been institutionalised for 14 years) to begin an experimental program to prepare them for community placement. Training covered vocational, social and daily living skills, but what was more important,

programs were individually designed to encourage idiosyncratic development. Still more relevant, social skills involved promoting the acquisition of "an adult self-concept" through role playing, discussion and individual therapy which was especially designed to counteract effects of the retarded label, which Parnicky continues, meant subjects were treated as children whatever their age but "more damnably" came to think of themselves as children. Clearly, this might be interpreted as a strategy to develop a repertoire of social and personal identifications as alternatives to a single retarded social identification.

Results were promising: 18% of experimental subjects became entirely independent, with another 48% becoming semi-independent, while the figures for controls, who received the usual preparation provided by the institution, were 0 and 14%. Similarly, only 30% of subjects were reinstitutionalised compared with 73% of controls.

To conclude this section, it is easy to assume that the gothic-like institutions of the 1950's and 60's are no longer with us, and that the present theories are not likely to prove relevant today. A number of points answer this challenge. First, occasional news reports and the recent work of Ryan and Thomas (1980), attest that massive, dehumanising institutions are very much still with us, for, as Malin Race and Jones (1980) point out, despite new legislation, the status quo has tended to prevail. Second,

and more important, deindividuation and referent informational influence do not require Dickensian style hardship, but are psychological states that can occur in the brightest surroundings with the kindest care. Third, the present approach is based on continua, and while some institutionalised retardates probably represent virtually pure instances of intergroup behaviour (see Tajfel, 1974), interactions uninfluenced by social identifications, it will be remembered, are almost unimaginable, and real life bristles with situations in which a retardate social identification is likely to be salient and therefore, to produce handicap, for example, in special schools, remedial classes and even interactions with psychologists.

Bronfenbrenner (1979) neatly summarises the present view:

Placing people in different roles, even in the same setting, can radically influence the kinds of activities and relations in which they engage and thereby presumably alter the course of their development.

p. 84

This of course, extends massively the application of the present approach, and increases the number of studies which are compatible and hence, indirectly supportive (although stronger conclusions require confirmatory research).

Gampel, Gottlieb and Harrison (1974) for example, had an opportunity to study 55 children who were moving to a new school building. Twenty-six who had been segregated in a special class were randomly assigned to new special or integrated classes. After 4 months, the former showed

significantly more negative behaviour, which, in accord with the present views, the authors suggest reflects the conformity to expectations associated with the special class, which was mediated by self-definitions.

In two fascinating studies on retarded readers, Lawrence (1971, 1972) investigated the effects on reading attainment of individual counselling compared with traditional remedial programs, the hypothesis being that motivation and ultimately attainment would be improved by providing personal expression with a sympathetic adult.

In his 1971 paper, Lawrence begins with the idea that educational failure invades the whole personality and that retarded readers, consequently, grow demotivated. However, he points out, poor self-image and emotional adjustment might be a cause as much as a consequence of poor performance.

Accordingly, 48 retarded readers and a random sample of good readers were given Porter and Cattell's Children's Personality Questionnaire. In support of Lawrence's arguments, the former scored significantly more on the "O Factor" which indicated that they were somewhat apprehensive, worrying, depressed, and guilt prone. The poor readers also took word recognition and non-verbal intelligence tests. Next, they were divided into 4 matched groups. 1 received specialist remedial teaching, 2, personal counselling, 3 received both, and 4 was a control.

After 6 months, tests were retaken. Group 2 had made most progress on all measures, including reading, although they did not differ significantly from group 3.

Lawrence hypothesised that counselling had improved the motivation of his retarded readers, but he does not discuss just how this might have occurred. The present idea is that it helped children to develop personal identities and move away from the intergroup end of Tajfel's continuum where their behaviour and self-images would have been based on a retarded social identification. This is strongly supported by two facts. First, counselling sessions were child centred, and involved encouraging personal revelation through the expression of interests, attitudes, hobbies, relationships and anxieties. Exactly the influences, in other words, that would be expected to enhance personal identity, but which per se, seem unlikely to improve reading. Second, (although the difference was insignificant), counselling plus remedial help was less effective than counselling - a result that Lawrence does not discuss at all, but which makes perfect sense in the present framework. Quite simply, remedial teaching is likely to reinforce the child's self image as a retarded reader and hence to encourage retarded reading behaviour.

In summary, Lawrence's studies can be interpreted to support the hypothesis that poor performance can be mediated by a retarded social identification.

Further evidence comes from a fascinating study (Granat, 1977) of 2,000 Swedes undergoing testing as part of the enlistment procedure for military service. From these, 128 who had never been labelled, but who were intellectually subnormal, were identified. The intelligence profile (the relationship between verbal, spatial, numerical, perceptual and psychomotor tests) differed significantly from a group of similar intelligence who had been labelled, and it is interesting to hypothesise that the labelling experience accounted for the differences, rather than that the differences accounted for the labelling.

Similarly, the work of researchers like Jeffree and Cashdan (1971) whose retarded subjects not only showed a verbal deficiency but also a verbal disinclination can be interpreted as consistent with the present approach, since behaviour not attributed to fixed intrinsic qualities, (like "ability") might be mediated by referent informational influence. Unfortunately, the present paradigm is worlds apart from those concerned with retardate learning performance, so there is nothing relevant to Tajfel's familiar continuum among MA and CA controls. Nevertheless, such studies are important and interesting in their own right and must still be mentioned, especially as it is important to see whether established findings nevertheless fit comfortably into the present approach.

Herriot, Green and McConkey (1973) for example, investigated whether the same processes could be inferred to account for

free recall in retarded (with a vocabulary age between 5 and 8 years) and normal subjects. They found that the poor spontaneous performance of the former could be improved by various cues, including practice in categorising objects before trials, or simply instructions to note that some stimuli belonged together. This led to the important conclusion that high level coding strategies to aid recall are within retardates' repertoire, yet not spontaneously employed. They added, however, that the most subnormal of their subjects did not appear to benefit in the same way, which could imply that high level strategies are not available to all.

More recently, Farb, Cottrell, Montague and Throne (1977) were able to improve intelligence levels (defined as WISC scores) with training.

Ann Brown (1974) provides a highly sophisticated review and empirical investigation of strategic behaviour in retardate memory, which requires a lengthy excursion into cognitive psychology and therefore cannot be done justice to here. Because human memory is a limited system, she begins, efficient performance relies on the effective use of mnemonic strategies to transform random input into information-rich units, and retardates perform poorly, because they are deficient in the spontaneous use of such strategies, rather than deficient in memory.

She goes on to note that information processing models,

which had the greatest influence during the early 1970's, were characterised by an emphasis on computer-like flow diagrams and stores. For example, information was thought to be maintained by rehearsal in a short term memory (STM) before being passed to long term memory (LTM). Studies of retardates based on this paradigm, it follows, were concerned with locating the missing or defective store.

Such approaches, it seems to me, may be linked theoretically with the medical model of retardation, because both are essentially structural, implying that retardation is a constitutional impairment that cannot as yet, be repaired. Indeed, it is very easy to assume that the usual culprit, short term memory, actually refers to a structure in the brain, where the micro-surgeon, one day, will begin his work.

Within the levels of analysis approach, on the other hand, processing is thought to begin with physical, and progress to semantic features, cognitive performance being a function of the depth of analysis. This fits comfortably into the present view, since, as Brown points out, processes that are subsumed under STM in information processing models, are seen as the result of deliberate attention, an optional strategy, in other words, rather than a structural feature. Thus, the well documented deficiency in retardate STM becomes a failure to select and employ mnemonic strategies and not a constitutional impairment.

Without relevant strategies, the individual is dependent on involuntary memory, - whether material seems to present itself for recall. For example, Brown cites an experiment by a (unnamed) Russian psychologist who gave subjects stories to read, half being warned that they were to remember them. On testing, these recalled 47% of the content, but those who had had no warning recalled almost as much. With normal subjects, however, warnings improved recall by some 30%. Similarly, a plethora of studies illustrate that retardates fail to rehearse to-be-remembered material (e.g. Ellis, 1970; Belmont and Butterfield, 1971). Herriot, Green and McConkey (1973), it will be remembered, showed they fail to use associative clustering, and in addition, they fail to use mnemonic elaboration (Rohwer, 1968) or redundancy (Spitz, 1973), and are unable to focus on task relevant aspects in visual discrimination (Zeaman and House, 1963). Finally, Brown herself found they did not forget irrelevant information.

Essentially, all these studies represent the failure of strategic patterns that are under voluntary control, and which can be induced with training, (within certain hypothesised limits related to developmental level). Thus, deficiency in retardate memory performance and hence, many educational tasks, is not primarily ability determined, but represents a lack of "the mysterious intent to learn". (Brown 1974, p 56). Just why this might occur is not considered, but it seems possible, from the present point of view, that

it might be mediated through a functioning retardate social identification, within which behaviours like the employment of purposive learning strategies are inappropriate. This interpretation is supported by Friedman et al (1977) who argue for the importance of metamemory in determining performance and its development in interaction with environmental factors.

Also relevant to the present discussion, is the work of Zigler (e.g. 1966), who argued that motivational and emotional rather than intellectual factors influences retardate performance.

A number of researchers, he points out, have found differences between social adequacy and inadequacy to be a matter of personality differences that are shaped by experience, particularly pre-institutional social deprivation. He goes on to argue (Zigler, 1969; 1971), that parents (of both normal and subnormal children) tend to base expectations on children's chronological age, regardless of their mental age, and therefore that mentally retarded children especially, are likely consistently to fail to live up to them. Such experiences, he continues, result in a heightened motivation to interact with a supportive adult, coupled with a reluctance and wariness to do so, which both tend to be increased by institutionalisation, particularly in institution-centred establishments. Similarly, he continues anxiety and fear of failure are higher in retardates than in normals, and he cites ample documentation

to suggest these have debilitating effects on performance, through depressing aspirations and motivations and establishing an outer-directed style of problem-solving which might be mistaken for distractability. Together, these factors rather than intellectual deficit, can account for patterns of retarded behaviour such as compliance and perseveration retarded children typically show.

"If the retardate could somehow be guaranteed a more typical history of success", Zigler writes, "we would expect his behaviour to be more normal, independent of his intellectual level", 1966, p.148.

Clearly, his ideas are comfortably accommodated by the present approach. The major difference seems to be that he envisages an interactional, not a transactional role for the retardate in determining his own performance, seemingly arguing that experiential factors produce long-term, almost constitutional personality changes in subnormal children which go on to determine task performances. Here, however, such changes are seen as being self determined, according to changes in current self image.

So far, it might be argued that self-determination has been in little evidence, since emphasis has been laid on the factors likely to trigger not only self-stereotyping and subsequently role-determined behaviour, but also actions based on personal identities. This is why the present section was called "Patterns of Acceptance." The next

section further complicates the picture by considering some possible "black box" properties of subnormals - the active part they might play in determining their own retardation despite prevailing situational exigencies.

4. Patterns of rejection

"I'm not retarded", proudly proclaims a young man, "I'm brain injured".

Posner, 1977, p. 372

Oakes (1983) warned, it will be remembered, that the cognitive salience of social categories only results directly in intergroup behaviour if it affords an opportunity to enhance self-esteem. Common sense suggests that a retardate social identification is unlikely to facilitate this, and therefore, individuals are likely to resist categorising themselves as retardates.

Tajfel (1978) delineated three types of strategy that help cope with social identifications that contribute negatively to self-esteem, which, although largely concerned with political and racial minorities and extensively re-elaborated (e.g. Tajfel, 1978; Turner and Brown, 1978; Tajfel and Turner, 1979), are relevant here.

The first, "assimilation into the majority, whenever this is possible" (Tajfel, 1978, p.14), does nothing to change the relative status of a negatively valued group, but applies to the lucky few who escape. If it were unconstrained, the end result would be the merging of a minority into the majority. Hence, the continued existence of minority groups attests its rarity.

More likely, individuals who leave a negatively valued group

will not be fully accepted by the majority. Tajfel (1978) writes,

Paradoxically, they are regarded as still typifying in some important ways the unpleasant characteristics attributed to their group and at the same time, as exceptions to the general rule.

p. 14

Not surprisingly, therefore, a second type of assimilation is based on deception in order to "pass". Interestingly, there is evidence (e.g. Breakwell, 1979) that this can lead to a particularly vehement identification with the new group and rejection of the old.

Finally, Turner and Brown (1978) note that an individual can dissociate himself from a group psychologically, if actual social mobility is impossible.

The second major strategy, "social creativity", essentially refers to a reinterpretation or re-evaluation of the characteristics of a negatively valued group, so that they after all contribute to members' self-esteem. This is likely to be adopted where individual mobility is impossible or undesirable, and therefore differs from assimilation since it is a group, not an individual strategy.

Social creativity can take a number of forms. First, the established values attached to salient group attributes might be reversed, the most quoted example being "black is beautiful". Second, an alternative value dimension on which the disadvantaged group has superiority, might be

established. In the classic demonstration, Lemaine (1966) divided schoolboys into two groups who were to compete in building a hut. One was deliberately given inadequate materials and could only produce an acknowledgedly inferior building. However, they went on to add a garden and fence, and then to argue the relative importance and legitimacy of these as evaluative dimensions.

Turner and Brown (1978); Tajfel and Turner (1979) append two more variants of social creativity, including the selection of an inferior group for comparative purposes, and the making of intra instead of intergroup comparisons, since Rosenberg and Simmons (1972), for example, found that negroes comparing themselves with each other, rather than whites, did not suffer from depressed self-esteem.

The final major strategy, social change, refers to direct competition with the majority in an attempt by the minority to topple the social system in which it is negatively evaluated.

In Gibbons' (1981) eyes, because retardates have a negative group image, "it stands to reason" that their self-images will also be negative. The present opinion is precisely the opposite, since when strategies are taken into consideration, it is clear that there is no necessary correlation between an individual's evaluation of an ingroup and his self evaluation as an ingroup member. As Milner

(1981) argues in connection with racial minorities, negative self-esteem is not an inescapable consequence of a negative social identification.

Such strategies suggest how a retarded social identification might be coped with. They fit well into the present view of self-esteem as multifaceted, with the individual having a choice as to which aspect of self he "backs". However, there are a number of reasons why the "fit" is only tentative. First, the coping strategies are almost exclusively derived from research into racial prejudice and political minority groups, and as yet, they pay little attention to situational salience, whereas, it seems clear that in the present context, they will only be triggered when the negative social identification is relevant. Second, they are centrally concerned with their motivating factor, self-esteem, whereas, for present purposes, it is important to extend this to argue that an individual leaving a social group to maintain self-esteem must also cease to assign himself criterial (retarded) attributes, and hence, cease to show normative (retarded) behaviour.

Consideration of these strategies nevertheless introduces massive potential variance into any paradigm, and it seems to me, that literally any outcome, is possible. At one theoretical extreme, a researcher might not be dealing with retardates at all, but with "individuals" or members of some

other more positively valued group. At another, a retardate with low self-esteem, can be seen as an individual with a salient negative social identification whose coping strategies have failed. In between must lie a gamut of more likely possibilities which can help explain why the literature bristles with contradictory findings and experimental failures whenever the self concepts of retardates are involved, and why, in particular, the hypothesised damage to self-esteem of labelling is so difficult to find.

To give a taste of the confusion, Meyerowitz (1962) for example, found retarded children showed significantly more self derogations on the Illinois Index of Self Derogation than normals, and more recently, Leahy, Balla and Zigler (1982) found they had less positive self-images. Mayer (1966) on the other hand, found no difference between normal and retarded subjects, while Collins, Burger and Doherty (1968) who administered the Tennessee Self Concept Scale to school children, found retardates did worse on identity and moral subscales and normals on self-criticism and social self. Overall, however, they too found no difference. Fine and Caldwell (1967) went so far as to suggest that their retarded subjects' self-concepts were "inaccurate, inflated and unrealistic" (p. 324) when they failed to find the predicted low levels of self-esteem. Similarly, Horai and Guarnaccia (1975) found retardates attributed their own

successes to ability and their failures to lack of effort, a pattern resembling people with high achievement motivation and opposed to the attributions others make regarding retardates' performance (that were discussed in Chapter 3). Such "surprises" and inconsistencies, coupled with a belief that retardates are difficult to work with, has resulted in a dearth of studies using retardates as subjects, rather than targets, (Gibbons, 1981), which makes the present task more difficult.

An interesting methodological point is that these contradictory findings and many like them, might represent a paradigm in crisis (Kuhn, 1974). They seem to be based on a linear developmental model in which particular conditions are hypothesised to have consistent, unidirectional effects. Writers like MacMillan, Jones and Aloia (1974) therefore, blame failure to find a reliable labelling effect on the lack of proper experimental controls, which leaves the confounding of label x segregation x curriculum x teacher and so on, unchecked. On reading their paper, however, it is difficult not to feel that the attempt to control these extraneous factors represents an effort to shore up a failing paradigm, and ultimately, that difficulties in interpretation as ever more complicated refinements are added, would render it virtually useless. In other words, in the present opinion, a mini scientific revolution is required, to introduce a paradigm accommodating the present

approach, in which the active role of the individual in shaping his self-conceptions is acknowledged, and in which it is recognised that retardates are human beings who strive, like everyone else, to preserve self-esteem. Such a paradigm, it is argued, will introduce more predictability and consistency into research, and the following discussion is an initial attempt to demonstrate some of the possibilities.

The third strategy, social change, would involve direct action from retardates as a group to change their status relative to the majority. This seems both unlikely and unsupported in the literature, and therefore, will not be discussed.

More relevant, is the first strategy, assimilation, which in its first form, involves genuine social mobility from a negative to a positive group.

Koegel and Edgerton (1982) together with Clarke and Clarke (1974) emphasise the administrative function of educational classification and introduce the notion of a 6 hour retarded child, suggesting that mild subnormality is a temporary incapacity related to school failure. According to Kushlick and Blunden (1974), "After leaving school, the majority of these people become socially and economically independent and are indistinguishable from the rest of the community". Since such adults do not seem to exist as a social group, it

is reasonable to hypothesise that they represent an example of genuine assimilation into society. In a fascinating study, Koegel and Edgerton (1982) followed-up 45 black adults who had received special education and 60% gave some indication that they thought they were limited in some way - although none used the term, "retarded" but mentioned problems with reading and money matters. The authors went on to argue that their results indicated those leaving special education do not merge completely with "normal" society. Their conclusion does not seem inevitable for two reasons. First, although these adults might have left school, 30% had central nervous system impairment and 75% were dependent on care-takers. Thus, assimilation might have failed for these reasons. Second, *personal* admissions to limitations coupled with avoidance of the term "mentally retarded" do not suggest ex-pupils were handicapped by a retarded (special school) self-image. Thus, unimpaired children leaving special education remain as a probable example of genuine social assimilation.

On a cynical note, however, their social mobility might simply be due to a lack of facilities for further special education, which according to Farley (1983) is sadly inadequate, but which might be fortuitous in allowing children to cast off their retarded social identifications. The vehemence with which this is done, is suggested by Gozali (1972) who found 85% of a sample of special school

leavers perceived their education as "degrading and useless".

The remarkable career of Doug Valpey which was mentioned in Chapter 3 (Valpey, 1982; Turner, 1980) provides an interesting glimpse of attributions that might underpin the transition from "retarded" to "normal". Doug lived 18 years in a hostel, labelled mentally retarded, despite being of normal intelligence and writing a number of publications. Interestingly, while he believed himself retarded, he used his own successes as evidence of how retarded people are underestimated, but when he began to redefine himself, they became evidence that he was mislabelled.

Guskin, Bartel and MacMillan (1976), on the other hand, note that a degree of social mobility can be "bought" for children whose parents shop around for specialists who invoke less troublesome labels, like "learning disability" instead of "retardation". Similarly, according to Edgerton, (1967), adults prefer to be "criminals" or "alcoholics" than "retardates".

The second and third forms of assimilation merge into one, because hiding a social identification in order to "pass", is likely to exist alongside assimilations that are only partially successful, that is, those in which the individual is not fully accepted by the majority. These strategies are illustrated by inmates discharged from institutions who do

not seem to enjoy unrestricted social mobility. The label "retardate",

not only serves as a humiliating, frustrating and discrediting stigma in the conduct of one's life in the community, but also serves to lower one's self-esteem to such a nadir of worthlessness that the life of a person so labelled is scarcely worth living.....He cannot, and he does not accept the official "fact" that he is, or ever was mentally retarded.

Edgerton (1967) p. 145

Precisely as the framework of coping strategies might predict, the "quintessential problem" for 48 Pacific State Hospital discharges was to conceal their past through massive and ingenious shereades, despite as Edgerton puts it - their defective brains. Strategies included wearing broken watches so they could ask the time, feigning drunkenness or poor eyesight to dodge reading, and sadly, explaining away sterilisation scars as appendectomies. Furthermore, ex-inmates rejected each other with great vehemence, which is interesting because it flies in the face of the reliable finding that people tend to be attracted to similar others, (Byrne, 1971), and which ties in with the attitude studies mentioned in Chapter 3, since as Gibbons (1981) points out, retardates do not necessarily dislike each other, but simply do not want to associate.

Turner and Brown (1978) also noted that individuals can disassociate themselves psychologically from negatively valued groups - a strategy adopted without exception by

Edgerton's sample. Indeed, there are many denials that could have been quoted with Turner's referent informational influence in mind, since they reject so explicitly criterial attributes and intragroup similarity.

I was never mental like the others that couldn't remember nothing or do nothing

I sure didn't belong in there with all those dopey people

did they really think I was like them others
1967, p 206

These anecdotes, I think, are particularly interesting because they reflect the paradoxical nature of unsuccessful assimilation, since, despite the denials, behaviour still seems to be mediated by a salient retardate social identification, in the sense that dischargees had not ceased to assign themselves criterial attributes, but rather seemed to assign and then attempt to conceal them, so that their behaviour was determined by an "anti-role" as it were.

In a different connection, Pettigrew (1964) argued that self-esteem may be maintained by a sharp distinction between personal and racial self, which suggests that psychological rejection of a negative social identification might also take the form of an emphasis on personal identity, but, ex-inmates, it seems to me, are unlikely to be successful at this. One reason for this was suggested in the previous section, namely, institutionalised retardates are unlikely to have much opportunity to develop personal identities, or

as the Gunzburgs put it, to become aware of themselves as human beings. This is vividly illustrated by an ex-inmate of an unnamed British subnormality hospital.

Being in the institution was bad.....I didn't have any clothes of my own, and no privacy....The real pain came from always being a group. I was never a person.I couldn't figure out who I was. I was part of a group. It was sad.

Ryan and Thomas 1980, p 12

Once discharged, Edgerton's cohort, almost without exception bought memorabilia from church stalls and junk shops in order to construct a spurious personal past, sadly reminiscent of Frankenstein's monster.

In summary, it seems likely that genuine social mobility from retardate to normal is likely to be confined to ex-special school pupils.

Where individuals are unable to assimilate into the majority or to find some other way of leaving a negatively valued group, they are likely to revert to "social creativity".

In its first form, this would entail the establishment of a new value system, reversing the negative status of retardates, without effecting any objective change, but as Tajfel and Turner (1979) point out, this is limited by the availability of relevant dimensions. Few underprivileged groups they argue, would accept poverty as a virtue. Similarly, precious few retardates seem likely to extoll incompetence.

In its second form, social creativity would entail the establishment of an alternative value dimension on which retardates are superior, but, as Edgerton writes:

no other stigma is as basic as mental retardation in the sense that a person so labelled is thought to be so completely lacking in basic competence. Other stigmatised persons typically retain some competencies, limited though they may be, but the retarded person has none left to him

1967 p 145

In other words mental retardation is conceptualised as so pervasive, that there are few, if any dimensions on which retardates have a chance to be superior.

Having made this point, Guskin et al (1976) for example, mention retarded children who do well in gym as opposed to academic classes, and, in addition to the usual negative attitudes, Gottlieb and Corman (1975) found a positive stereotype, consisting of beliefs that retardates are honest, moral and kind. Thus, some dimensions, along which retardates could make positive social comparisons appear to exist.

It is clear, however, that the heated insistence on the legitimacy of the hut's fence and garden as value dimensions in Lemaine's experiment is unlikely to be mirrored, for example, in retardates establishing moral innocence over IQ as a criterion for social comparisons.

Because retardates are nevertheless expected to desire positive self-esteem, this suggests that the salience of

such evaluative dimensions might be subjective, linked, in other words, to James's idea that individuals have a choice in what aspect of self they "back". Hence, when an individual's retarded social identification is salient, aspects relating to morality, friendliness and so on, might carry more weight. Measures relating to intellectual ability, it follows, might give a misleading and only partly relevant picture.

According to Turner and Brown, the third type of social creativity entails the selection of an inferior group with whom to make social comparisons, and an anecdote which arose during the forthcoming experiment is relevant here. Teachers at Florence Brown School - a special school in Bristol - remarked that pupils frequently came to class in tears, having been called "spastic" and wondering what it meant. On learning the term did not apply to them, they happily used it to derogate others, which implies that spastics are a group in relation to whom they felt superior. Similarly, Edgerton (1967) remarks that social comparisons with profoundly retarded inmates provide an opportunity for the less handicapped to "aggrandize" themselves and "reconstruct damaged self-esteem" (p. 146).

The final form of social creativity, preserving self-esteem by making intra rather than intergroup comparisons, is perhaps most supported in the literature but before looking at some examples, it is important to mention Tajfel's (1978)

point that this too is limited in scope, and depends on the individual's ability to insulate himself from the rest of the world.

According to Gozali (1972), it will be remembered, 85% of a sample of ex-EMR students said their education had been "degrading and useless." Sixty-one percent of Warner, Thrapp and Walsh's (1973) subnormal children, on the other hand, liked being in a special class. Only 26% wanted to leave. Consideration of intragroup mechanisms easily resolves this apparent contradiction: the former are seen as having "passed" and therefore, as making intergroup comparisons, while the latter, still members of a negatively valued group are likely to base assessments on intragroup comparisons, in order to preserve self-esteem. Indeed, 69% specifically mentioned the pleasantness of shared class activities, and, I suspect, their status in comparison to "normal" pupils was far from their minds.

This has serious implications, however. Warner et al, for example, conclude that their findings "do not support the assumption that most retarded children resent their special class placement with accompanying feelings of rejection and stigmatization". From the present point of view, all their study probably shows, is that children protect themselves from the misery of such feelings. Very different results might have been obtained if children were re-tested under different conditions.

Similarly, Strang, Smith and Rogers (1978) argue that experimental failure to find diminished self-regard in children assigned to special classes is because they make comparisons with classmates of similarly low ability. Mainstreamed academically handicapped children, on the other hand, are likely to compare themselves with normal classmates, and hence show poor levels of self-esteem. Children mainstreamed for half a day, they continued, are likely to have the best of both worlds - able to preserve academic related self-esteem by making intra-group comparisons, but also able to categorise themselves with normal children, and therefore avoid negative intergroup comparisons.

In their first study, half a sample of special class pupils (with a mean WISC-R IQ of 87 and age 9 years six months) were integrated at random into regular classes for half each school day. Dependent measures included WISC-R, Metropolitan Achievement and Piers and Harris (1964) self concept tests which were administered at the onset of the study, one month after treatment began, and 4 months later, at the end of the school year. ANOVA on the initial data showed experimental and control groups differed on only one variable, which was easily accounted for by chance, but finally, repeated measures ANOVA showed composite self-concept scores were significantly higher for the experimental group, although academic achievement did not

differ.

Since improvements might have been due to the experience of mainstreaming and concomitant beliefs in academic improvement, a second study, close in orientation to the present views, was run. A different set of subjects (with mean WISC-R IQ 92) mainstreamed for part of each day were used, and it was hypothesised that saliency of regular class membership would eliminate special classroom peers as a comparative reference group and hence, result in lowered self-esteem. Half the subjects were randomly assigned to the experimental condition and received a treatment that involved naming them as regular class members, and reading the names of classmates, the dependent measure being the Piers Harris self-concept test administered at the beginning of the school year and after experimental treatments. Results showed an improvement of 7.3 points in controls' scores, but a decrease of 2.5 in the experimental group. This resulted in a significant between group difference, which further analysis showed, was primarily accounted for by Intellectual and School Status subscores.

These studies are tantalisingly close to the present views - although, as usual, since they are not based on the present paradigm, they are only suggestive. The important point is, however, that situational changes can be related to social identity and through social creativity, induce measurable

differences in self-concepts. Strang et al argue, that unavailability of special classmates coupled with saliency of regular class membership, forced subjects to base self assessments on inter group comparisons with their intellectual superiors, or in the present terminology, the coping strategy, intragroup comparisons, was precluded. Nevertheless, it is interesting to speculate that if measures had been based on morality or friendliness, for example, the outcome might have been reversed. To summarise, the studies of Strang, Smith and Rogers help to illustrate the present model, which predicts that retardate self-concept measures will depend on a transaction between social or personal identifications, social comparisons and comparative dimensions.

This section would not be complete without a little more consideration of behaviour. After all, it is hoped that the present ideas might help ameliorate the incompetent behaviour that is hypothesised to be mediated through the individual's perceptions that he is retarded.

Thus, a fascinating study (Weiss and Weinstein, 1968) in which the manipulative tactics employed by 31 institutionalised and 30 non-institutionalised retardates to secure their own way, deserves mention. Subjects who were matched as closely as possible on MA (6 to 10 years) and CA (16 to >17), were simply asked how they

would persuade (1) their best friend and (2) a person in authority (a) to change T.V. channels so they could see a favourite program, and (b) to give them money to buy a cold drink on a hot thirsty day.

Most relevant, asking was found to be the overwhelming tactic among the noninstitutionalised group, who seemed exclusively to assume they would have their own way simply for the asking. Institutionalised retardates on the other hand, relied on asking less and reciprocity considerably more, showing awareness that the motivations of others would have to be accounted for and satisfied before they would comply.

Weiss and Weinstein stress that their study is exploratory and informal, and they do not consider in any detail these differences, except to suggest that parental over protection might account for them. From the present point of view, it is interesting to speculate that the tactics of the non-institutionalised group are underpinned by a retardate social identification, not imposed by environmental influences, but made salient because it mediates adaptive behaviour (i.e. getting their own way) most effectively. Although little information was given, the institutionalised group, on the other hand came from child-centred homelike units and therefore, their more sophisticated strategies might have been interpersonal, and underpinned by salient personal identities. Alternatively,

their behaviour might have been intragroup, representing an ability to adjust to differing demands. In other words, as Turner (1981a) argues, the interpersonal-intergroup continuum might be better conceived as interpersonal-intragroup-intergroup.

This introduces an additional complication that makes a priori prediction particularly difficult. The paradox is that behaviours are hypothesised to be influenced by self-conceptions, and that when an individual's retardate social identification is salient, he will believe himself less competent. It is simultaneously hypothesised that, if the opportunity arises, individuals whose retardate social identification is salient, will make intragroup comparisons and therefore, relatively high self-assessments. The first premise predicts incompetent and the second, relatively competent behaviour. Perhaps the solution is simply to bear in mind that beliefs like "I am clever" could be suffixed "for a retardate" and that behaviours might correlate with self assessments, independent of their actual level, (a possibility that will be explored more fully in the next section).

The message seems to be that self-concept measures should be interpreted with their context in mind, and that care should be exercised when extrapolating from them to behaviour.

STUDY 5

5. AN ATTEMPT TO MANIPULATE SOCIAL AND PERSONAL IDENTITIES IN A CLASS OF SPECIAL SCHOOLCHILDREN

5.1 Introduction

What follows, it must be stressed is a very preliminary attempt to manipulate the relative salience of social and personal identifications and to measure concomitant changes in self image and behaviour, the exploratory nature of which will be reflected in a relatively informal content and style.

With the previous discussion of coping strategies in mind, the picture has grown so complex that the construction of even preliminary testable hypotheses might seem impossible. These complexities are seen as reflecting more closely the richness of real life, and using the notion that self-concept measures reflect self-images which depend on (1) the individual's desire for positive self-esteem, (2) whether the context is interpersonal, intragroup or intergroup and (3) the nature of dependent measures, hierachy of hypotheses has been formulated.

The first, simplest and most important is that emphasis on social categories will enhance the salience of a retardate - or more specifically - a special class social identification. According to referent informational influence, subjects will then assign themselves the same

critical group attributes, and this will result in increased actual and perceived intragroup uniformity (along dimensions related to group membership), and subsequently, in greater intragroup liking and empathy. At the same time, increased perceived intergroup distance is expected.

Second, although it will be assumed that membership of a special school is negatively evaluated and that *the* critical attribute is academic incompetence, subjects whose social identification is salient, are not expected automatically to assign themselves negative characteristics. On the contrary, through the social creativity of intragroup comparisons, they are expected to make relatively high self-assessments of ability and to protect self-esteem. Third, and paradoxically, ability scores are nevertheless expected to be less.

Finally, subjects are expected to assign themselves any positive attributes associated with group membership when their social identification is salient.

METHOD**Subjects**

Twelve boys and five girls who constituted the most senior class at Florence Brown School. Although the school is for ESN(M) children, subjects ranged from borderline ESN(S), with IQ estimated at 45, to low normal. However, most could read, or at least recognise both their own names and those of their classmates. None had stigmatic characteristics, though perhaps one or two appeared a little ungainly. Most had difficulties in addition to educational problems including physical handicap, speech defects and behaviour problems, like stealing or simply being too troublesome for regular schools. Ages ranged from approximately 13 years 10 months to 14 years 8 months.

Apparatus

Preliminary questionnaires, instructions and a 58 item semantic differential-type self-concept (or more properly, self-image) measure. (See Appendices 5.1, 5.2, 5.3, 5.4). In order to be relevant to hypotheses, items reflecting the "hallmarks of group belongingness", (perceived intragroup similarity, liking and empathy), perceived intergroup distance and intellectual ability were essential. Wording was developed by subjects' teachers and finalised with the aid of a pilot on two subjects. Positive and negative criterial attributes were selected from the original 81 item semantic differential by the teachers and then similarly adapted to suit subjects. Finally, a few miscellaneous

scales were included at the teachers' request. In addition two ability measures were kindly supplied by the Project Administrator at CHES.¹

1. The CHES Pictorial Language Comprehension Test, which although time consuming, had the advantage of examining understanding without requiring speech, consisted of 3 subscales:-

- i) picking a picture from 4 to match a given word
- ii) picking a picture from 4 to match a given phrase
- iii) ordering 2>4 pictures to match a given phrase

2. The British Ability Scales consisted of 4 subscales:

- i) word definitions
- ii) digit recall
- iii) similarities
- iv) matrices

Relevant copies are given in Appendix 5.6.

Procedure

Teachers were asked to pair subjects on the basis of general and intellectual similarity, and one member of each dyad was randomly assigned to each experimental condition. During testing however, the enormity of individual differences grew more obvious and threw into relief the small sample which

¹ CHES or Child Health and Education Study, it will be remembered, is a longitudinal study of all children (approximately 14,000) born in England, Scotland and Wales from 5th to 11th April 1970. The study is directed by Prof. Neville Butler at Bristol University's Department of Child Health and is administered by Dr. Mary Haslum.

gave only 8 in each condition. For this reason, it was decided to retest subjects on the self-concept measure so that the sample would be doubled and a repeated measures design possible. Two subjects were unavailable for retesting, which took place after approximately one week, which gave a final sample of 15 taking the self-concept measures under both conditions.

Subjects were interviewed singly, but in random order. First, they received the appropriate treatment, then self-concept and ability measures were taken.

Treatment 1: The Personal Condition. Subjects were told E was "finding out about different people", and were asked a series of questions about their home, family, idiosyncratic preferences and hobbies.

Treatment 2: The Pupil Condition on the other hand, was designed to enhance subjects' shared special class social identification. They were told E was "finding out about people at Florence Brown School and in your group". First they were asked whose class they were in and how long they had been at the school. Then (helped if necessary), they read out the names of everyone in the group, indicating whom they liked best, (following Strang, Smith and Rogers (1978), it will be remembered). Finally, they were asked about their group's timetable, and most important, what distinguished their class from the rest of the school.

Both treatment questionnaires are given in Appendix 5.1.

The self-concept questionnaire (Appendix 5.4) was then administered. Throughout, (first on the pressing advice of the teachers, then with the benefit of experience) questions were read and responses recorded by E, although, the questionnaire was fully visible and each item was pointed out as it was read.

Instructions (Appendix 5.2) were similarly read out.

Always, subjects were asked to choose between the two poles of each item and then their responses were graded, pointing to the semantic differential "boxes" and using natural language quantifiers like "all the time", "most of the time" or "just some of the time". Every effort was made to pose these in random order, particularly since one or two, E suspected, seemed sometimes simply to repeat the last possibility. Most, however, anticipated by grading responses before being asked.

Finally, the two ability measures (Appendix 5.6) were administered, according to the instructions (included in Appendix 5.6) given by CHES.

When subjects were retested, exactly the same procedure was employed, except (as will be fully discussed below) the ability measures were omitted.

All testing was done in a relatively private corner of the

classroom, which was partitioned off to serve as a coffee and recreation area. Finally, subjects were debriefed by means of a wild tea party, and any questions were answered.

5.3 RESULTS

1. S.d. responses were scored in the usual manner, and Table 5.1 shows means together with standard deviations on each item for personal and pupil conditions. For reasons of space, each has been identified using its positive pole only. In addition, the most important aspects of data are displayed at relevant spots during the text.

Repeated measures ANOVA showed 5 items differed significantly between conditions with a further 2 bordering on significance. These have been noted on Table 5.1.

Examples and justifications of analyses are given in Appendix 5.7.

TABLE 5.1
Self concept scores in pupil and personal conditions

Item	Personal		Pupil		
	mean	s.d.	mean	s.d.	
1 I'm a friendly person	2.20	1.15	1.80	0.86	
2 I'm easy to get on with	2.07	1.44	2.13	1.36	
3 my group understands me	1.73	0.88	1.80	0.86	
4 my family is proud of me	2.00	1.60	2.27	1.79	
5 people know what I'll do	3.33	2.06	4.20	2.21	
6 I'm adult	1.80	1.21	1.60	0.99	
7 my other school was good	4.33	2.82	4.33	2.26	
8 people like me	1.67	0.90	2.27	1.39	p=.05
9 people in my class help each other	3.07	1.44	2.67	1.23	
10 kids on the street like me	2.13	1.25	2.47	0.99	
11 I'm clever	3.47	1.96	2.53	1.55	
12 I trust people easily	4.60	1.96	3.73	2.09	
13 I'm good at PT & dancing	2.80	1.70	2.20	1.42	
14 my group & I feel the same	3.73	1.87	2.73	1.53	p=.01
15 I'm cleverer than my parents think	3.60	1.96	3.67	1.72	
16 I'm good looking	1.80	1.21	2.13	1.30	
17 my group likes me	2.07	0.96	1.73	1.03	
18 people know what I'm saying	2.80	2.18	2.40	1.55	
19 I like looking after myself	2.53	2.00	3.07	2.69	
20 I'm not moody	3.60	1.76	3.33	1.88	
21 I know why I'm at this school	2.60	2.75	2.20	2.48	
22 kids on the street understand me	2.07	1.44	2.13	1.46	
23 I don't mind if I can't do something	4.13	2.39	4.13	2.29	
24 I can manage by myself	3.53	1.85	4.07	2.09	
25 I can concentrate	2.67	1.40	2.07	1.44	p=.05
26 if a classmate's upset, we all are	6.87	0.35	5.27	1.53	p=.001
27 I'm quick at things	3.20	2.04	2.87	2.17	
28 my teachers understand me	1.93	1.39	1.93	1.22	
29 I'm good at saying what I mean	2.60	2.06	2.73	1.91	
30 people like being with me	1.73	1.16	1.73	0.88	
31 I'm cleverer than my teacher thinks	3.13	1.55	3.33	1.95	
32 my parents like me	1.13	0.52	1.33	0.62	
33 I stay calm	3.00	2.36	3.07	1.94	
34 I like my classmates	2.47	0.92	1.87	1.19	p=.057
35 I think clearly	3.93	1.98	4.40	2.03	
36 I'm nice	2.13	1.19	2.13	1.36	
37 I don't break things	2.60	1.68	1.87	1.46	
38 people want me around	2.07	1.62	2.27	1.28	
39 things don't bother me	2.27	1.58	2.47	2.00	
40 I know a lot	3.93	2.09	3.00	1.89	
41 I know how to behave with people	2.33	2.23	2.47	2.10	
42 I like to join in with others	2.13	1.92	2.13	1.92	
43 I can be trusted	1.60	1.06	1.80	1.26	
44 I decide what I do	2.00	1.46	2.80	2.18	
45 I'm a help to my family	1.53	1.13	1.87	1.19	
46 I'm good at sports	2.07	1.71	2.40	1.96	
47 I'm good at schoolwork	2.73	1.44	2.67	1.88	
48 my teachers like me	1.73	1.16	1.87	1.06	
49 people arent frightened of me	3.00	1.77	3.53	1.68	
50 I never fall over things	2.73	2.37	3.60	2.35	

51 I'm the same as my group	3.13	1.88	1.93	1.53	p=.057
52 I try hard	3.27	2.58	2.40	2.03	
53 I'm nice to live with	1.80	1.61	1.47	0.74	
54 looking after me's easy	1.67	1.18	2.47	1.60	p=.03
55 people in my class like each other	4.00	2.20	3.20	1.82	
56 this school is great	2.27	1.39	3.00	2.17	
57 I like to be me	1.93	1.75	3.13	2.29	
58 my parents understand me	1.80	1.21	1.73	1.22	

2. Ability measures were scored by the professional coders at CHES, and Table 5.2 gives mean scores on each subscale for both experimental conditions. One factor completely randomised ANOVA revealed no differences on any.

3. Scores on items 11, 25, 27, 35, 40 and 46 were summed to give a composite self-concept of ability measure for subjects in the pupil condition. Spearman's rho was computed between this and ability measures and Table 5.3 gives the relevant correlations.

4. Self-concept data were factor analysed for each condition, using BMDP4M. With the default eigenvalue of 1, 12 and 14 factor solutions were yielded for personal and pupil conditions, respectively. Since the first 8 factors accounted for 83% and 82% of variance, eigenvalues were set at 3 and data reanalysed to give the 8 and 9 factor solutions presented in Table 5.4. In order to give a clearer picture, the usual convention of omitting items with loadings $< .4$ has been observed.

5.4 DISCUSSION

The possibility of artefacts arising out of the experimental situation was a constant worry. Experimenter bias seemed particularly threatening in view of the intimate interactive testing situation and the leading role taken by E in reading and recording responses. In practice however, this was less likely than was at first feared, because it was difficult to remember what treatment had been given initially, throughout each testing session.

Furthermore, experimenter bias, if present, could go in either direction, since over-zealous attempts to avoid it may artefactually *disconfirm* hypotheses. Nevertheless, should this pilot indicate more research is worthwhile, these difficulties should be reduced by use of naive experimenters.

On the other hand, there were also some advantages in E's close involvement. For example, subjects were asked if they would like to be different, if they could. One girl replied "Yes", adding that she had planned to tint her hair.

Clearly, without this additional information, her self-esteem would have been assessed as artefactually low.

Possible experimenter bias seemed inherent in the BAS and consequently, was instrumental in the decision not to retest on the ability measures. The subscales, particularly the word definitions, required E to prompt subjects, but there

were no guidelines as to what differentiated a prompt from unfair help, and it seemed inevitable that greater encouragement would be showered on personable, highly motivated subjects at the beginning of the day than to less attractive, distractible ones at hometime - although of course, in trying to be fair, the reverse might have been nearer the truth.

Testing conditions were a second headache:- Sessions were held in a relatively private coffee and recreation area in a corner of the subjects' classroom. It had been intended to boost treatments by testing those in the depersonalised pupil condition at times when the rest of the class was absent, since, as discussed in Chapter 4, the familiar special-school classroom coupled with an absence of possible interpersonal influences should have further increased the salience of their pupil social identification. In contrast, those in the personal condition were to have been tested while the rest of the class continued lessons, since the presence of others and the occasional wink or nod from a friend should have enhanced personal identities. However, testing conditions can only be described as chaotic. Since each subject required upwards of an hour, and the short school day was punctuated with breaks and two lunch sittings, excited, thirsty onlookers would inevitably descend for refreshment during sessions, disrupting concentration and most probably, the ability measures.

Clearly, in further research, tighter control over testing conditions is essential.

The third source of possible artefact was provided by the subjects themselves. Because they had been assessed as mentally subnormal, it seemed reasonable to fear that misunderstandings or responses to extraneous factors might be even greater than in most experiments. (Although, of course, this is precisely the sort of expectation the present approach is supposed to be directed against.) In general, however, they appeared easily to understand questions and give valid responses. One or two, perhaps were not clear on the more complex items, and when this happened, the careful counterbalancing was "unscrambled" and natural lexical marking followed, so that confusing negatives like "doesn't your group like you?" were not presented first. Although this might have introduced error, within the present repeated measures design it seemed unlikely to have introduced systematic bias.

Fears regarding co-operation also seemed unfounded.

Subjects were eager and willing to share self-experiences without apparent evaluation apprehension (Rosenberg 1972), although one or two of the girls seemed over modest in self-ratings of attractiveness and popularity. Indeed the candour of one subject provided an anecdotal validation of the instrument. Throughout, the majority responded that they were maximally good looking, but Matthew,

self-consciously fingering several large pimples responded that he was only rather good looking at present. During retesting, however, the offending pimples had gone and, without hesitation, he described himself as maximally handsome! Clearly, this is the sort of incident that suggests, as previously argued, that self concept instruments in fact capture self-images at the time of testing.

Despite large differences between group means on a number of items, repeated measures analysis of variance revealed only 5 (and a further 2 almost) significant differences between pupil and personal conditions, which almost certainly reflects the small sample size and massive individual variance, the subject effect, for example, proving highly significant ($p < .0003$) on every single variable.

The Primary Hypothesis

The primary hypothesis was that the self-images of subjects receiving the treatment to emphasise their special class membership, would converge towards a shared special school social identification. Those in the personal condition, on the other hand, should grow relatively individualised.

The previous sections should have made it plain that a salient special school social identification is unlikely to be reflected in the direct self-assignment of mostly negative criterial attributes, and therefore, the search for

evidence was primarily concerned with the "hallmarks of group belongingness", since when in the pupil condition, subjects should stereotype themselves and hence conform in perceiving themselves more similar to each other, with consequent increased perceived liking, understanding and empathy.

Eight items were designed with this in mind, and subjects responded "my group and I feel the same about a lot of things" (item 14) significantly more than when they were in the personal condition ($p = .01$). They also showed less variance in their responses, although the variance ratio was not significant ($F = 1.49$, d.f. 14, 14).

Similarly, subjects in the pupil condition responded "if someone in class is upset, we don't all feel upset" (item 26), significantly less than when they were in the personal condition ($p = .0008$). In this case, however, they showed significantly less agreement ($F = 18.99$, d.f. = 14, 14. $p < .01$), which was clearly because the question was a bad one. In the personal condition, all but two, (whose responses were only one category less extreme) responded with maximum strength that the class does not empathise when a member feels upset. Without exception, responses were categorical and quizzical and, a couple of days' experience of frequent classroom scuffles and tears (usually beginning and ending with the least popular children) showed why. Thus, there was a ceiling effect on this item which virtually eliminated

all variance in the personal condition, but since several subjects moderated their responses in the pupil condition, variance increased. This highlights again the difficulty of using variance to measure conformity:- the spirit of the prediction was confirmed:- subjects in the pupil condition must have agreed more that there was greater emotional empathy, since those in the personal condition agreed entirely that there was not!

It is worth digressing to examine this ticklish problem again. In the pupil condition, it was hoped that responses on these 8 items would indicate greater mean perceived similarity and that variances would indicate greater actual agreement. As suggested in Study 4, however, this presupposes that the mean in the pupil condition is the value associated with group membership, towards which responses converge. This assumption goes beyond the hypothesis which merely predicts the directional influence of this value. In other words, conformity should not be measured around the mean in the pupil condition, so much as around some point that is less than the personal condition mean, like for example, the minimum value, 1 - the y axis. Thus, unlike Tajfel and Wilkes' (1963) paradigm, systematic intragroup convergence around the group mean is no longer expected, because the value associated with group membership, is not necessarily the same as it. It is worth mentioning that I was fortunate enough to discuss this point

with Turner himself, who agreed with my reasoning then added that groups are defined by contrasts, and convergence around the group mean is therefore expected only ^{when} a group is flanked by outgroups on each side. Thus, although some sophisticated statistical technique would be desirable it is sufficient to note that variance, and hence, conformity, in this sense is likely to be decreased whenever the mean in the pupil condition is less than the mean in the personal condition. For this reason, intragroup conformity to normative behaviours will be assessed by considering shifts in group means in the predicted direction, and not by variance per se.

Subjects in the pupil condition "like the people in my class" (item 34) and most important, feel "I am the same as my group" (item 51) more than when they are in the personal condition, although, sadly these differences only border on significance ($p = .057, .057$). They also believed "people in my class help each other" (item 9), "my group likes me" (item 17) and "people in my class like each other" (item 55) more when they were in the pupil condition, although none was significant ($p = .2, .2, \& .1$ respectively).

Only one of the eight variables designed to examine perceived similarity, mutual liking and understanding, was not in the predicted direction:- in the pupil condition, subjects did not believe "my group understands me" (item 3) more, but the difference between means is so small (.07)

that it is probably not worth theorising about this minimal failure in the context of 7 more substantial successes.

The reverse side of stereotypically increased intragroup cohesiveness is, of course, a widening of perceived intergroup differences, resulting in less liking, perceived similarity and understanding of outgroup members, who for present purposes, were represented by "people" and "kids on the street" on six items.

In the pupil condition, subjects believed "people like me" (item 8) significantly less ($p = .04$), which is striking in view of the small number of significant findings and because the superficially fine distinction between "my group" and "people" has been made with significantly reversed results.

Similarly, they believed "people want me round" (item 38) and "people aren't frightened of me" (item 49) less, but tied exactly on "people like being with me" (item 30). In addition, they believed "kids on the street like me" less (item 10) and "kids on the street understand me" less (item 22), although neither approached significance, and admittedly, the difference between means in the latter case is tiny.

Results relating to perceived intergroup difference might have been more significant had the items been more precise. For example, one or two subjects asked just what "people" were meant, or remarked that there were no "kids" on their

street. Furthermore, items might not have represented a distinctive outgroup since subjects could have included classmates in either category. "People are frightened of me", for instance, seemed more a barometer of classroom bullying than anything else. On the other hand, because "people" and "kids on the street" are group terms themselves, they might have weakened the salience of personal identities and hence reduced the contrast between conditions. In further research therefore, it would be wise to tighten such items, referring perhaps to specific adults or children from other (normal) schools.

Post hoc, a number of items that were added as a courtesy to the teachers, can be appended here. Subjects in the pupil condition believed "my teachers like me" (item 48) non-significantly less, but tied exactly with the personal condition on "my teacher understands me" (item 28) and it seems reasonable to assume that teachers represent an outgroup with whom perceived social distance was increased in the pupil condition.

Such increased perceived intergroup difference is interpreted as a result of the relatively automatic cognitive effects of categorisation, but this ignores more human considerations, at which level, beliefs like "people like me less" simultaneously indicate that retardates become aware of the negative reaction their status elicits from others. Perceptual effects of self-categorisation, that is

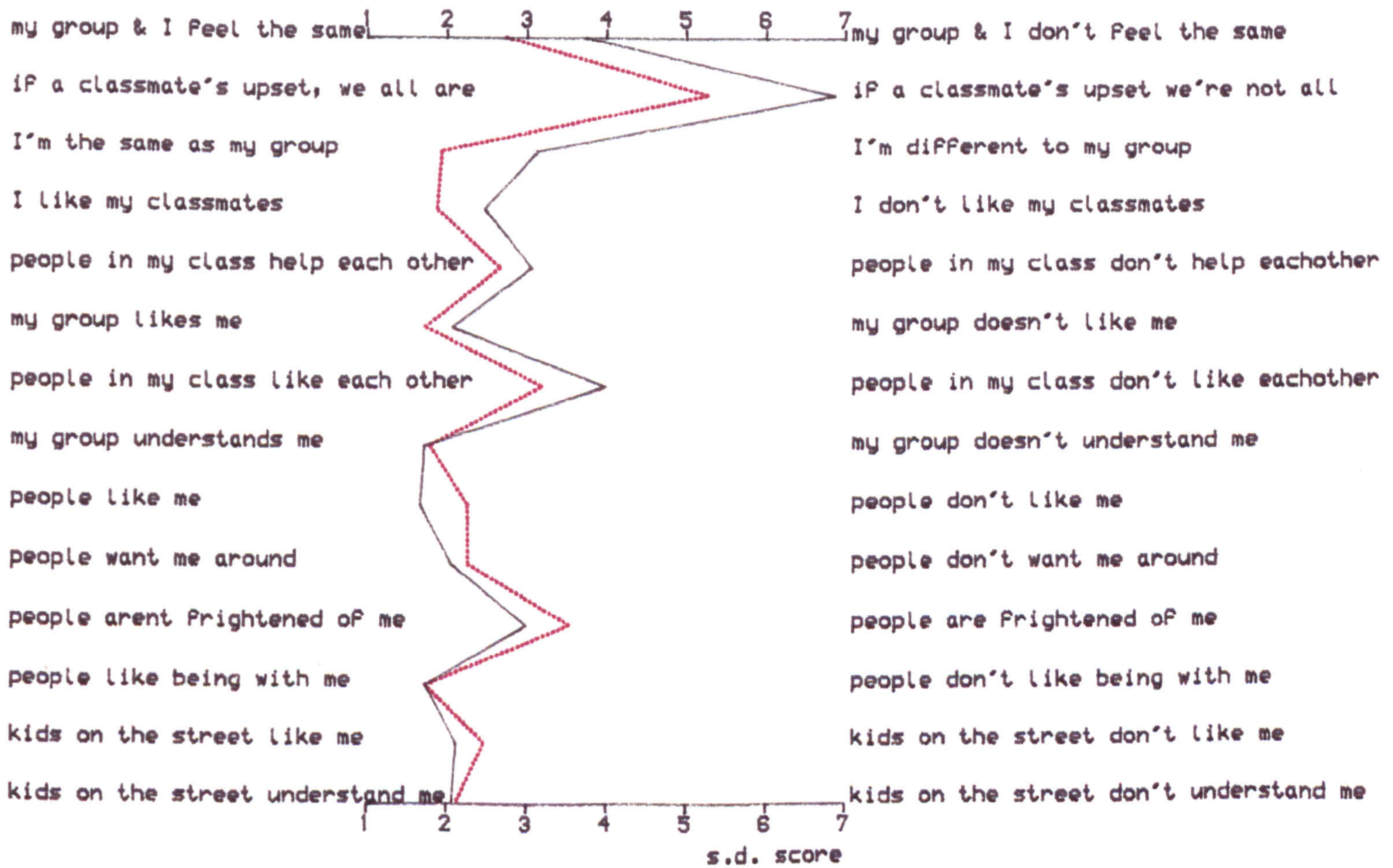
to say, do not exist in a vacuum, but are enmeshed in "real life". To go one step further, this illustrates the complexity of the present transactional approach in suggesting that elements of self-concept that reflect the individual's concern about others' reactions to him, do not develop passively, but themselves depend on the individual's self-definition. Thus the individual provides the impetus for his own development as a canvas for the reactions of others. Indeed, it is fascinating to speculate that any salient, negatively valued social identification should increase perceived dissimilarity to the majority, which might be both internalised and reinforced by behaviour and therefore elicit negative responses, in a not-so-merry-go-round of self-fulfillment.

Figure 5.1 summarises results relating to of the primary hypothesis, and the movement of the mean profile for the pupil condition in the predicted direction is striking. Lack of significance on individual variables was at first, disappointing but when the small sample size, chaotic testing conditions and enormous individual variation are taken into consideration, results after all, seem impressive. They suggest that the pupil treatment, as predicted, triggered subjects' special class social identification and consequent perceived intragroup similarity and intergroup dissimilarity. Perhaps one of the most interesting developments of the present work would be

to use some form of the self-concept questionnaire as a means of scaling the "personalised vs pupilised" influences of various special schools.

FIGURE 5.1

SELF IMAGES OF A GROUP OF ESN SCHOOL CHILDREN



— Personal condition

..... Pupil condition

The Second Hypothesis

Self-stereotyping and perceived enhanced intra-group similarity result as individuals assign themselves the same criterial group attributes, but although poor ability is the sine qua non of special school status, self-assessments in the pupil condition were not expected to be low. On the contrary, since the situation was relevant to social creativity, subjects were expected to preserve self esteem by making *intragroup* comparisons on such dimensions. Salient personal identifications, on the other hand, should virtually eliminate special class membership from current self-images, and with it, the advantage of easy "competition". Consequently, it was predicted that subjects would have higher opinions of their ability in the pupil compared with the personal condition.

Six variables were designed with this in mind, and when they were in the pupil condition, subjects believed "I can concentrate" (item 25) significantly more than when they were in the personal condition, ($p = .05$). They also reported "I am quick at doing things", (item 27), "I know a lot about things" (item 40), "I am good at school work (item 47) and "I am clever" (item 11) more although none was significant. In the latter case, it is important to note, one subject, Marie vindicated the rationale precisely, in saying that she was quite clever *compared* with them.

Only one variable ran contrary to this trend. In the pupil

condition subjects reported "I get mixed-up when I'm thinking", but when they were in the personal condition, they said "I think clearly" (item 58), the difference between conditions being non-significant. On consideration, two related points emerge. First, "getting mixed-up when I'm thinking" was coined by the class teachers to convey the stereotypic attribute, confused thought. However, it does not seem to carry particularly negative overtones, but seems to have the ring of a much repeated "class homily". Hence subjects in the pupil condition might have assigned themselves this criterial attribute without the need for defensive intragroup comparisons. Second, the item seems particularly subjective, so that to answer it, social comparisons might not only be unnecessary but also impossible.

In toto therefore, there seems to be reasonable support for the second hypothesis that identifying with a special class results in an improved self-concept of ability. As previously argued and as present results suggest, the shield placement provides in this way, seems only of limited use, since it functions when the retardate social identification is salient and intra group comparisons are made. Clearly, it is likely to become an inwardly directed weapon in situations of salient social identity where only intergroup comparisons are possible. An anecdote illustrates the point: a social services worker whose job includes

placement of unemployed school leavers, said she immediately recognises children from Florence Brown School by their reluctance to give away their special school status and subsequently, their low opinion of themselves. In these circumstances, it seems likely that their special school social identity is salient but instead of the easy competition provided by classmates, self-assessment derives from comparisons with representatives of other regular schools. It would be interesting to test this adapting the present paradigm.

Subsidiary hypotheses

1. Negative stereotypic traits

Low ability, of course, is not the only negative attribute of retardates, and a number of additional variables were designed to investigate these, with the same hypothesis, that intra group comparisons would result in relatively positive self assessment in the pupil condition.

Item 41 was designed as a "translation" for the negative stereotypic trait, social incompetence, but subjects responded "I know how to behave with people" *less* when they were in the pupil condition. Similarly, they responded "I am easy to get on with" (item 2) *less*, although neither was significant. Superficially therefore, it looks as if the trend is for subjects to assign themselves negative stereotypic attributes, unameliorated by intragroup comparisons. On closer inspection, another possibility arises. Since both involve the notion of other people, these items might have fallen into the category reflecting perceived intergroup distance, an interpretation supported indirectly because results on "I am easy to get on with" are in the opposite direction to the superficially similar "I am a friendly person", which does not involve the notion of others.

Three variables concerned the attributes clumsiness and poor co-ordination. When they were in the pupil condition, subjects responded "I am good at things like PT and dancing"

(item 13), together with "I don't break things" (item 37) more, but "never fall over things" (item 50) less, no difference being significant. The latter contradicts predictions, but during testing, subjects seemed rather keen to laugh "I'm always falling over things" which seemed almost to become a positive group norm.

Two variables concerned the stereotypic attribute, impaired speech. In the pupil condition, subjects reported "people know what I'm saying" (item 18) more, but "I'm good at saying what I mean" (item 29) less, both being nonsignificant. The latter despite being particularly small, is contrary to predictions but like "I get mixed-up when I'm thinking", it was coined by the teacher, does not seem negatively valued and perhaps represented a group norm, which (pupil) subjects assigned themselves, and in including "people" it might again represent increased perceived intergroup difference.

Similarly, five items were intended to represent the negative attributes childish excitability and unpredictability. In the pupil condition, subjects reported "I am not moody" (item 20) and "I am adult" (item 6) more. On the other hand, they responded "sometimes I do things without thinking" (item 5) more and "I stay calm" (item 33), less, and they tied exactly on the items designed to measure frustration, "I get angry if I can't do something" (item 23). Again differences in connotation might account for

this unimpressive record. Intragroup comparisons might be triggered to avoid self-assessments of immaturity, for example, but "I get excited a lot", seems to convey enthusiasm rather than negative over-excitability.

Finally, this might also have been the case with three items designed to investigate the attributes, dependency and helplessness, since subjects responded "I need help with things" (item 24) and "I like looking after myself" (item 19) together with "I decide what I do" (item 44) less in the pupil condition.

The attribute, ugliness, was represented by item 16, but in the pupil condition, subjects responded "I am good looking" non-significantly less, perhaps because of chance factors, the afore mentioned Matthew, for example, responding with pimples in the pupil condition and without in the personal!

A cluster of items was designed to cover the stereotypic notion that retardates are shameful to their families and a burden to caregivers.

In the pupil condition, subjects reported "looking after me is no bother" (item 54) significantly less, and "I am a help to my family" (item 45) and "my family is proud of me" (item 4), insignificantly so. They tied exactly on "my parents like me" (item 32) and believed "my parents understand me" (item 58) and "I am nice to live with" (item 53) marginally more.

By way of summary, it is superflous to add that results relating to this hypothesis are tedious and inconclusive. Four important general points, however, need making. First, subjects are special school children, whereas the negative stereotypic traits were generated originally by their relevance to "retardates" and therefore may not have been suitable. Clearly, in further research, items should be collected for their empirical relevance. Second, evaluative connotation, particularly in interaction with subjects' age, needs careful consideration: "getting excited a lot" and "falling over things" to teenagers are a far cry from "unable to control myself" and "unco-ordinated" to adult discharges. Third, many items seemed subjective and may not have been relevant to intragroup comparisons. Finally, results were, in any case, non-significant.

2. Positive stereotypic traits

Predictions regarding the positive stereotypic characteristics friendliness, innocence and co-operativeness were easy to make. It was simply hypothesised that subjects would attribute higher levels of these to themselves when their special school social identification was salient.

In the pupil condition, they reported "I am a friendly person" (item 1), "I trust people easily" (item 12) and "I try hard" (item 52) more, although none was significant. There was an exact tie on "I like to join in with others"

(item 42), but here again, the notion of "others" might have triggered perceived exaggerated intergroup difference.

3. Miscellaneous Items

Since it is argued that retardates are probably expected to perform at a level below that of which they are capable, it was thought subjects might feel under-estimated in the personal condition compared with when they are in the pupil condition where they should be, as it were, the embodiment of such underestimation. Interestingly, they reported being cleverer than their parents (item 15) and teachers (item 31) think in the personal condition, but unfortunately, these two items posed difficulty to some, and the difference between means is very small. Nevertheless, follow-up research does seem worthwhile.

Finally, it was impossible to resist adding a handful of items relating to self-esteem which, it seemed might not accommodate intragroup comparisons and which might therefore reflect the negative effects of special school placement that, despite their elusiveness, "instinct" expects.

Subjects reported "I like to be me" (item 57) less when they were in the pupil condition although the considerable difference between group means was non-significant. There was an exact tie on "I'm nice" (item 36) and on the items included from Piers and Harris and Coopersmith measures, subjects reported "I can be trusted" (item 43) and "things

don't bother me" (item 39) less in the pupil condition. In other words, there is a smattering of evidence that self esteem is lowered by placement in a special school, (although it is important to point out that semantic differential scores averaged <4 and therefore, no subject evaluated himself negatively overall).

This covers all but a few miscellaneous items included as a courtesy to the teachers, which are in Table 5.1, but which will not be discussed here.

Ability Measures

Since it is hypothesised that retarded behaviour is the outcome of a functioning retarded social identification, poorer ability measures were expected from subjects when they were in the pupil condition, but unfortunately, this part of the study was overwhelmed with difficulties: apart from the likelihood of error resulting from experimenter and subject effects and the chaotic testing conditions, the measures themselves seemed insufficiently sensitive. The Project Administer at CHES kindly arranged for them to be scored by their Coders, so that marking would be comparable with their data on approximately 14,000 ten year olds, but this turned out to be disappointing because only one point was awarded for a right answer and nothing for a wrong, no matter how close or reasonable. In the BAS similarities subscale, for example, subjects were given three related items and asked to give their class name and an additional example, but if one was right and the other almost correct, no marks were awarded. Similarly, some matrices required upwards of half a dozen elements and a subject successfully and neatly drawing all but one received no more credit than one who failed to attempt the item at all.

With time and care, it might have been possible to rescore measures, allowing some marks for partially correct answers, but this was not undertaken, since there were only 8 widely different subjects in each condition and so many misgivings

about the testing conditions. Nevertheless, the simple step of counting correct answers for the similarities subtest was undertaken and these scores are included in bolding on Table 5.2.

At the time of writing, norms for the CHES Picture Vocabulary Test are not yet available, but in any case, these would refer to 10 year olds. Published norms for BAS exist, but the Administrator at CHES believes their coders mark more strictly, which, since the CHES sample is so large, is not a problem for them, (because their sample is effectively, normative.) but which means present results probably underestimate subjects' ability. For what it is worth, their average performance was approximately (1) at the lowest percentile of the national norms for the BAS word definition subtest; (2) for digit recall, it was between the 4th and 5th percentiles and (3), for similarities between the 3rd and 4th. Finally, (4), performance on the matrix completion subtest was around the fifth percentile.

Individual differences were enormous, particularly on digit recall, where performances ranged from the lowest percentile expected of a nine-year-old to the 83rd for the correct age.

Table 5.2 gives mean subtest scores and according to ANOVA, there was no difference between conditions, although subjects performed better on 4 subtests in the personal compared with 3 in the pupil condition, which at least, is in the right direction overall. It is tantalisingly

suggestive, however, that three of these four are the BAS subtests that are based on language and numbers, the traditional academic building blocks, to which, arguably, retarded behaviour is more relevant. Thus, if only the BAS had been employed, results would have been a deal more impressive. It is also interesting and important that the adjusted scores show a slightly increased trend in the predicted direction, which suggests that if the subtests were more sensitive, predictions might have been better supported. Clearly, more research is crying out to be done.

Table 5.2

TEST	Condition			
	Pupil		Personal	
	Mean	s.d.	Mean	s.d.
CHES 1	28.13	+ 5.0	29.78	+ 7.1
2	6.25	1.6	4.44	3.0
3	7.50	2.5	7.33	2.4
BAS 1	4.13	2.1	5.22	1.8
2	16.88	5.2	17.00	5.1
3	8.88	1.8	9.89	2.4
	22.50	3.3	23.78	4.1
4	8.75	3.3	6.89	1.9

(Bolding denotes the number of right answers given in subtest 3)

There is no point in discussing these unimpressive results further because they are based on samples of eight extremely divergent children. Increased numbers, preferably a repeated measures design together with improved testing conditions and more sensitive measures are required first.

The second area of interest, whether there are correlations between items related to self-concept of ability and ability measures, is paradoxical: in the pupil condition, higher self-concepts of ability (bolstered by intragroup comparisons) are expected to be accompanied by *lower* performances, (mediated by an ESN social identification). However, since correlations are insensitive to mean values, self-concept and ability measures may still correlate. In the personal condition, on the other hand, there is no obvious reason to expect correlations between self-concepts of ability and performance, because the former, it is assumed, result from interpersonal comparisons with unspecified others, whereas ability scores would be ranked with reference to classmates. It follows, therefore, that attention should be confined to the pupil condition, but since ability tests were only taken once, this reduces the sample to 8.

The six items relating to perceived ability were summed into a single score, because alone, each could range from 1 to 7, but since pupils tended to have highly positive opinions of

themselves, the actual ranges were much smaller. For example, "I'm quick at things" (item 27) had a mean of 1.87 plus or minus 1.3, and correlations between such tightly skewed measures and the wide ranging ability scores were unlikely to prove meaningful.

Spearman's rho between overall self-concept of ability and actual ability measures is given in Table 5.3.

Table 5.3

	Test	ρ
CHES	1	.24
	2	-.06
	3	-.11
BAS	1	.36
	2	.40
	3	-.23
		(.04)
	4	.36

Results were unremarkable - and again there is little point in discussing them further because of the small sample size and powerful sources of error that have already been mentioned, although it is worth noting that the more traditional BAS again were more promising. To leave statistics, however, it was interesting that the boy whose self-assessment was highest, invariably scored most on the ability measures. On the other hand, the two girls

consistently underestimated themselves, which seemed the major reason for the low correlations. This brings to mind the arguments (in the previous chapter) that the emotional aspect of self attitudes is important and can determine self-assessments whatever the more "external" criteria.

Finally, (if it does not smack too much of sour grapes) the present approach questions somewhat the usefulness of correlational studies between self-concept of ability and achievement. Since correlations are insensitive to absolute values, an improvement in the former, which might be achieved by providing an opportunity for intragroup comparisons, does not predict any effect on the latter. Perhaps then, more attention should be directed towards changes in self-concept which might accompany *better* performances. Paradoxically, this might involve a lower self-assessment of ability as salience shifts to personal rather than social identifications.

To conclude, this aspect provided no significant evidence to support the idea that performances would be better in the personal condition, but served its exploratory purpose in suggesting that further research is worthwhile.

Multidimensional Data

Intuitively, factor analysis seems an appropriate tool for exploring self-concept, or more accurately, self-image,

because it could reveal a hierarchy of dimensions along which self-assessments are made. However, since the present study is only exploratory, no detailed predictions were made beyond the broad hypothesis that different constellations or "gestalts" of self-descriptive elements might characterise personal and pupil identifications. For example, (unidimensional) self-concept of ability, according to the present viewpoint, depends on the strategies adopted for self-assessment, whereas, at the multidimensional level, the notion of ability might account for more variance in individuals whose retarded social identification is salient, irrespective of actual scores on specific items.

In a sense, this approach suggests that factor analysing class data for the personal condition might not be meaningful, because, in this case, subjects are hypothesised to have idiosyncratic self-images, which might be based on individualised semantic hierarchies. In other words, results from this condition are probably only valid for comparative purposes, and accordingly, too much emphasis will not be laid on them.

Separate factor analyses were performed on subjects self descriptions in personal and pupil conditions. Results are given below, and plainly, both structure and content of the factors differ, which is exciting when it is remembered that these represent self images of exactly the same children. It means that there is preliminary statistical evidence

consistent with the idea that the structure of self-images changes according to the situational salience of personal or social identification. However, it must be remembered that numbers are small and therefore, too much should not be read into results.

TABLE 5.4
Multi-dimensional self concepts of a class of special school children

Personal condition		Pupil condition	
FACTOR 1(20.2% variance)		FACTOR 1(24.9% variance)	
I'm cleverer than parents think	.88	I'm quick at things	.87
people want me around	.83	I'm good at schoolwork	.81
I can manage by myself	.80	I'm good at sports	.79
my family is proud of me	.78	people like me	.75
I think clearly	.74	I know a lot	.76
I try hard	.74	I'm cleverer than teacher thinks	.72
I'm clever	.68	I'm the same as my group	.67
people know what I'm saying	.66	I try hard	.61
my group & I feel the same	-.58	kids on the street like me	.59
in my class we help eachother	-.58	I'm cleverer than parents think	.58
people know what I'll do	.53	people want me around	.54
I'm the same as my group	.52		
I like looking after myself	.51		
I know a lot	-.47		
people arent frightened of me	-.46		
people in my class like eachother	-.45		
I know why I'm at this school	-.44		
FACTOR 2(15.1% variance)		FACTOR 2(11.7% variance)	
looking after me's easy	.85	my group understands me	.92
I'm good at saying what I mean	.81	I can concentrate	.77
I'm adult	.80	people arent frightened of me	.75
I'm a help to my family	.79	my teachers like me	.73
my teacher understands me	.77	kids on the street understand me	.66
I decide what I do	.71	my teacher understands me	.55
I never fall over things	.71	if a classmate's upset we all are	-.53
my parents understand me	.70	I'm nice	.52
I don't break things	.68	I know a lot	.51
I trust people easily	.59	kids on the street like me	.49
kids on the street understand me	.43	my group likes me	.47
this school is great	.42	I'm good at saying what I mean	.43
FACTOR 3(10.2% variance)		FACTOR 3(10.7% variance)	
I'm a friendly person	.80	in my class we help eachother	.88
people like being with me	.79	my group & I feel the same	.80
things don' bother me	.71	my family is proud of me	.76
I like my classmates	.70	people in my class like eachother	.75

my group likes me	.70	I like to be me	.74
people in my class like eachother	.63	people want me around	.56
I'm not moody	.58	I'm a friendly person	.48
I decide what I do	.48	people know what I'll do	-.44
my group & I feel the same	.44	kids on the street like me	.43
people like me	.43	I'm nice	.43

FACTOR 4(9.2% variance)

I can be trusted	.89
I'm quick at things	.89
kids on the street understand me	.75
I'm good at PT & dancing	.70
I know a lot	.61
my group understands me	.57
I'm good at schoolwork	.50
I trust people easily	.47
I'm good at sports	.44
my other school was good	.43

FACTOR 4(8.2% variance)

my parents understand me	.88
looking after me's easy	.84
I'm adult	.80
my group likes me	.61
I'm good at schoolwork	.47
I'm good at PT & dancing	.47

FACTOR 5(8.6% variance)

my parents like me	.78
I like to join in with others	.72
I'm easy to get on with	.63
my teachers like me	.58
I know why I'm at this school	.57
I can concentrate	.54
I'm not moody	.45
I like my classmates	.44
people like me	.40

FACTOR 5(7.8% variance)

I mind if I can't do something	.75
things don' bother me	.72
I'm not moody	.72
I like to join in with others	.65
I can be trusted	.62
I'm nice	.52
I like to be me	.50
people want me around	.47
I'm good looking	.46
if a classmate's upset we all are	-.45
I can concentrate	.44
people like me	.41
I can manage by myself	.41

FACTOR 6(7.5% variance)

I stay calm	.81
I'm cleverer than teacher thinks	.77
I know how to behave with people	.76
I'm good at schoolwork	.67
I never fall over things	.47
I don't break things	.46
my group & I feel the same	-.46
I'm the same as my group	-.43
I think clearly	.43
I can concentrate	.42

FACTOR 6(7.0% variance)

I know how to behave with people	.86
I'm easy to get on with	.79
I decide what I do	.78
I'm clever	.72
I never fall over things	.68
I can manage by myself	.53
I'm the same as my group	.49
I trust people easily	-.42
kids on the street understand me	-.40

FACTOR 7(6.2% variance)

I'm good looking	.77
I'm good at sports	.69
I mind if I can't do something	.67
I like looking after myself	-.61
I'm the same as my group	-.45

FACTOR 7(6.5% variance)

people like being with me	.85
I'm nice to live with	.83
I like my classmates	.63
this school is great	.54
I like looking after myself	.43

FACTOR 8(5.8% variance)		FACTOR 8(5.2% variance)	
kids on the street like me	.72	people know what I'm saying	.88
this school is great	.68	I think clearly	.64
I'm nice to live with	.64	I'm a friendly person	.63
people know what I'll do	.50	I don't break things	.59
I'm nice	-.46	I know why I'm at this school	.48
my teacher understands me	.44	people know what I'll do	.46
I like to be me	.42		
people arent frightened of me	.41		
people like me	.40		
		FACTOR 9(3% variance)	
		my parents like me	.81
		I know why I'm at this school	.73
		I stay calm	.66
		I'm clever	-.56
		this school is great	-.47
		I never fall over things	.44
		I decide what I do	.78
		I'm clever	.72
		I never fall over things	.68
		I can manage by myself	.53
		I'm the same as my group	.49
		I trust people easily	-.42
		kids on the street understand me	-.40

The content of Factor 1 in the pupil condition, which accounts for almost a quarter of the variance is exciting, because it seems primarily concerned with ability, specifically school ability, which covaries with an item representing the "hallmarks of group belongness" (i.e. "I'm the same as my group" (item 51)) and which is consistent with the idea that higher self-assessments of ability co-incide with salient social identity (and therefore, intragroup comparisons). Other items do not fit easily into this interpretation: among the lower loading, are "people like me" (item 8), "kids on the street understand me", (item 22) and "people want me around" (item 38), which were intended to represent outgroup processes, and therefore

their presence might be more understood if they had negative loadings. On the other hand, the vagueness of these items has already been mentioned, and perhaps, within this context they simply reflect that self-assessed social acceptability varies with ability.

Factor 1 when subjects were in the personal condition, seems long and diffuse, which by contrast, adds significance to its relative clarity in the pupil condition, and which might indeed indicate that factor analysing data based on various personal identifications is, as already mentioned, theoretically unsound. However, on close inspection, it becomes fascinating. Again it centres on ability, but of a very different nature to that of the Pupil condition. It seems to refer to competence and independence in the home and what is most interesting is the presence of 3 items relating to intragroup cohesiveness with negative loadings (my group and I feel the same, (item 14); in my class, we help each other, (item 9) and people in my class like each other, (item 58)) which suggest that (personal) competence at home covaries with rejection of the special class social identification. These negative loadings seem to some extent to validate treatments, and in addition, they suggest that ability ratings bolstered by intragroup comparisons under conditions of salient social identification, might be confined to academic ability, i.e. to the most relevant area.

Factor 2 in the pupil condition seems to concern intragroup cohesiveness, and secondly, ability. The presence of "people aren't frightened of me" (item 49) which was originally intended to refer to the outgroup seems to refer, as previously suspected, to classmates. The same seems true of "kids on the street like me" (item 10) (and teachers). Finally, the negative loading on "if a classmate's upset, we all are" (item 26) suggests, as suspected, that the item was unsuitable to represent intragroup empathy. The primary theme of Factor 3 also seems intragroup cohesiveness, this time with undertones of affiliation as well as empathy.

For the personal group, Factor 2 seems to focus primarily on family, competence and maturity, perhaps representing self evaluation in the home context, and the notion of group per se, is conspicuous by its absence. Factor 3, in contrast, apparently relates to likeability, and is interesting, because although items relating to intragroup liking are present, within this context, they seem to refer to (interpersonal) liking, because only one low loading item concerns perceived intragroup similarity. Reference to Table 5.4 shows that the personal emphasis seems similarly sustained throughout the remaining factors. Again, in Factor 6, items relating to ability seem to be "disconnected" from intragroup processes by the negative loadings of "my group and "I feel the same" (item 14) and "I'm the same as my group" (item 51).

Finally, in the pupil condition, Factors 4 onwards make interesting browsing, but perhaps there is a danger of reading too much into them, in speculating that they might relate to stereotypic traits. Factor 4 might concern dependency, because without the items relating to autonomy and helping others that appeared in Factor 2 in the personal condition, it seems passive in tone. Factor 5 seems fairly directly concerned with frustration, 6 with social competence and 8 with social acceptability.

To summarise, this aspect of the study seems to indicate that further research would be rewarding, since it offers more than a hint that the hypothesised changes in current self-image that reflect cultural beliefs actually occur, and might be measured using factor analytic techniques.

Concluding remarks

Although this exploratory study was always "noisy" (statistically and literally!), and often inconclusive, it has been valuable in a number of ways. First, it follows Gibbons (1981) in demonstrating again that experimentation with retarded subjects is entirely possible. Second, and most important, evidence in support of the main hypothesis that emphasis on special class membership enhances the salience of a shared social identification, although only sometimes individually significant, seemed strong overall. Thus, the study served its purposes in indicating

preliminary support of the social approach to the development of mental retardation and suggesting directions further research might take in the search for harder evidence. A few obvious points are that dependent measures relevant to social and personal identification together with treatments were derived a priori and both might be vastly improved through empirical development. Similarly, beyond questionnaire responses, no link between behaviour and (hypothesised) personal and social identifications was demonstrated. In that dependent measures were insensitive, testing conditions were chaotic and there were only 8 subjects ranging from so-called severely subnormal with aggressive behaviour to low normal in each condition of a completely randomised design, it would have been astonishing, or more likely, worryingly indicative of experimenter bias if such a link had been found. Clearly, more research is needed in which these difficulties are overcome.

The present paradigm could be extended into different areas, for example, the attribution studies of Severance and Gasstrom (1977) and Gibbons (1981) suggest children's reasons for their success and failure might interact with identifications. Indeed, following Hoffman and Weiner (1978), this should determine effort on subsequent tasks.

An improved version of the present self-image instrument could be used (without experimental manipulations) in a

range of special schools and institutions, since it not only seems to offer a better method of assessing the effect of placement on the self-concept than self-esteem measures, but also might be used to grade schools and hopeful, correlations between King and Raynes' scale (institution vs. person oriented) might be established.

One naively black and white thought was that placement is "bad" since it probably provides children with the additional handicap of a negative social identification, whatever the advantages of tailor made education and intragroup comparisons. Needless to say, this area is full of shades of grey and it seems possible that the present approach might provide a means to cheat, as it were, placement of some of its disadvantages. Simple emphases on personal identities and social identifications that cut across ESN/Normal boundaries should all help to reduce the salience hence any power of special school social identifications. Similarly, a subtle change to an interest in personal rather than school attainment might avert much handicap in employment situations. In addition, attempts could be made to establish positive criterial attributes associated with special schools, for example through charitable community work.

Finally, the subjective experience of running the study, of becoming a part of Florence Brown School, was also invaluable, in providing alarming confrontations with my own

stereotypic expectations and their subsequent dissolution in human contact. For example, I was first relieved at the normal appearance of the class, then worried at the clamour of the first break, when kettles were boiled and coffes made - inches from my ear. Next, reassured by their competence and my safety from scalds, I was surprised again when some of my pilot items simply were not understood.

Amid the clamour of the classroom and the nexus of new acquaintances, it seemed impossible that the behaviour of this riotous handful of problem teenagers could ever be encompassed within a single conceptual paradigm, and a conviction that they might be better helped by a trip to the zoo than a study on social identification began to grow. That is why the glimmer of some results consistent with the present approach are exponentially welcome. Of course, they represent a couple of faltering steps in an extensive, wide open field, but they do suggest that social identity theory and its descendants might ultimately become invaluable and practical allies.

CHAPTER 6

Summary and concluding comments

The purpose of the present work has been to suggest a social psychological orientation towards mental retardation, in which it is not "all over" for the retardate who cannot be cured in the conventional sense. It rests on a transactional model of development that stresses the existence of potential for change throughout life and the role of ongoing mutual transactions between the individual and his environment in producing such changes. (e.g. Lerner and Busch-Rossnagel, 1981). Accordingly, it rejects the notion of developmental fixity and the conception of the individual as a passive recipient of genetic or environmental determinants.

In order to articulate the present approach, Bronfenbrenner's (1979) view of "environment" was first adopted. Thus, the individual is seen as embedded in a hierarchical, socially constructed context. At the first level, the *microsystem* consists of the individual and the objects and people he responds to *as he experiences them*. At the second, the *mesosystem* refers to the relationship between microsystems, like the child's school and his home. The third level, the *exosystem* describes settings that the child never enters, which nevertheless effect his development, for example, a brother's school or parents' place of work. Finally, the *macrosystem* refers to organisational structures within cultures and subcultures

and their underlying ideologies.

The present approach then began (in Chapter 2) with a consideration of macrosystem influences, the area Bronfenbrenner complains is most often neglected. Based on Mercer's (1973; 1977) social model, it was argued that the understanding of mental retardation and consequently, who is labelled retarded, is not only a function of intra-organismic pathology, but also a matter of interpretation, which depends on the normative expectations of the prevailing social system (i.e. macrosystem influences). At the same time, a link was drawn to the inductive aspect of Tajfel's (1972) categorisation theory to argue that normative expectations evolve together with the interests and purposes of social groups.

Evidence was sought in an attempt to relate cross-cultural and historical views of mental retardation to prevailing interests and circumstances. Subsequently, many attitudinal studies no longer seemed "confusing and contradictory" (Gottlieb, 1975a), since differences were attributed to differences in normative structures, not ignorance or deceit on the part of subjects or methodological error on the part of experimenters. Finally, empirical support was provided by an ecological experiment (Bronfenbrenner, 1979) in which the beliefs of members of different social systems (lay people with and without personal experience of retardates, and in subsidiary aspects, psychologists and teachers) were contrasted. Differences were attributed to shared group

memberships rather than averaged individual characteristics of group members. For example, lay people without personal contact evaluated retardates more negatively than those

with:- the individualistic explanation that the former were unsympathetic people, each of whom would be changed and enlightened by contact with a retardate, was rejected, and indeed, closer examination yielded evidence that beliefs were influenced by the normative interests and purposes of different social systems, since those of subjects without contact concerned the negative implications of deviant appearance and behaviour, while those of subjects with contact seemed to concern giving care to retarded human beings.

The subtle, and optimistic conclusion was that the change to accepting attitudes within a social system is not a "bottom-up" matter of providing pleasant personal experiences for the majority of its members, but a "top-down" matter of changing normative beliefs. The latter might be achieved by a change in public policy, or what is highly relevant both to current attempts at integration in schools under the Warnock Report (1978) and community integration programs, by a change in public practice. In other words, the macrosystem, attitudes and the status quo need not be an immutable block to integration: they are determined by, as well as determinants of public practice.

The main lesson to be drawn from Chapter 2 is that mental retardation does not simply correspond to pathology in the

individual. It is also a handicap, dependent on prevailing social norms, which reflect the interests and purposes of social groups. Thus, its amelioration need no longer wait for scientific breakthroughs in the prevention and treatment of impairment, but may begin now, with a change in the beliefs of others and public policy.

Chapter 3 went on to identify the deductive aspect of Tajfel's approach to categorisation as a mechanism whereby macrosystems influence the perception, and by extrapolation, the treatment and hence the development of retardates. Following Tajfel's lead, it was argued that stereotypic perception (enhanced perceived intragroup similarity and intergroup dissimilarity along relevant dimensions) would be mediated by the label "mentally retarded". Its precise effect, however, would depend on the information it holds for perceivers (macrosystem influences), its usefulness (which depends on the perceived attributes of the person about to be labelled) and the judgements which are to be made. Subsequently, these three principles enabled apparent inconsistencies in the literature to be resolved.

Study 2 predicted and found that the labels "normal" and "mental retarded" mediated stereotypic perception in judgements made about (slides of) 4 normal and 4 subnormal children. As expected, the strength of the phenomenon was greatest on dimensions most closely associated with the normal/subnormal dichotomy and its biasing effect on the perception of individual targets was strongest where the

label carried most information - in other words, on borderline cases.

By extrapolation, labels are likely to influence not only the perception of retardates in real life, but also, the perception of so-called normals. Thus, Study 2 has implications in the field of education, and again, this is highly relevant to the notion of integration under the Warnock Report. For example, one argument against delabelling was the notion that retarded children would be stripped of special tolerances, but the present approach suggests these are an aspect of a wider stereotypic belief that retardates are not responsible for *anything*. Similarly, while expectations about children at the lowest ends of perceived subnormality and normality continua might be improved by categorising them, a heavy price would be paid by those at the highest ends. Indeed, because of the previously mentioned stings in the tails of special tolerances and the effect of evaluative bias, improvements are likely to be niggardly, and the cost, too high.

Study 2 also suggested that delabelling is unlikely to work without further back-up, for the simple reason that an explicit label is not necessary to trigger stereotypic perception, since following the inductive aspect of Tajfel's theory, perceivers are more than likely to infer one for themselves. Such back-up could include programs designed to change beliefs and the evaluative gradient associated with the label; undermining its usefulness by emphasizing its lack

of correlation with the characteristics of real individuals or by basing administrative groupings on criteria that cut across cognitive ability. Clearly, educating educators with the effects of social categorisation would be invaluable.

Chapters 2 and 3, in a sense, identified the sociological and *mechanistic* psychological building blocks of the present approach. In Chapters 4 and 5, its heart was reached in an attempt to identify a *social* psychological pathway, consistent with a transactional orientation, whereby macro-, exo-, meso- and micro- systems might influence retardates' development.

Chapter 4 concentrated - like an overheard telephone conversation - not on the retardate himself, but on others in his environment. Turner's (1981, 1981a, 1982) referent informational influence (self-stereotyping), provided the mechanism whereby individuals would conform to and hence, mediate, normative expectations. (In other words, referent informational influence is a formal expression of the "top-down" mechanism of Chapter 2). Thus, it was argued that macrosystem influences depend on individuals' self-definitions as group members, their social identifications, and subsequent intergroup behaviour (Tajfel, 1974), rather than on personal traits, experience or training that group members, on average, share.

Two experiments supported this argument: Study 3 suggested that expectations associated with social-identifications

(roles) were sufficiently detailed to include beliefs about retardates, appropriate for individuals occupying them. However, results might not have been generalisable because subjects, for the most part, were unlikely to have detailed knowledge of the norms in question, and therefore, were unlikely to represent normative behaviour of people in real life. Study 4, on the other hand, unconfounded salient social identification and actual group membership: opinions and perceptions characteristic of medics were shown by medics who received a treatment to ensure their clinical self-definition was salient, but not by medics who received a treatment designed to make them think of themselves as individuals.

The conclusion from Chapter 4 was that the handicapping effects of beliefs about retardates are not inevitable, but dependent on perceivers' conceptualising interactions in intergroup, not interpersonal terms. This has immediate and important implications for practice since client/professional interactions, it was noted, are intergroup by definition. Thus, the trappings of "professionalism", for example, clinical settings, scientific terminology, white coats and even the self-esteem derived from being a doctor, are likely to contribute to salient medical social identifications, biased perception and perhaps iatrogenic mental retardation.

In addition, the present approach suggests a strategy which might prove fruitful if applied to residential staff: the

quick reversion to the status quo at the end of intervention projects has recently been mentioned (Barrett, 1984; Coles and Blunden, 1978). However, if staff are actively involved and given responsibilities, improvements do not appear to fade when experimenters depart, (Coles and Blunden, 1978). This fits exactly the present framework: in the first case, co-operation with experimenters may be seen as compliance (Kelman, 1961), which depends on their presence to mete out rewards in the form of approval and encouragement. Active involvement and retraining, on the other hand, may result in a new self-definition and hence, new behaviours mediated by referent informational influence which do not require the presence of others for their continuance. Alternatively, normalising the self-concepts of those in the caring professions might be the first step to normalising those in their care.

Finally, in Chapter 5, an attempt was made to introduce the principal actor, the retardate, into the scene. Turner's referent informational influence (self-stereotyping) was reconsidered in more detail and introduced as a mechanism whereby salient social identifications (self-definitions as retarded) could mediate retarded behaviour that is role determined. This extends the notion of role implied in Mercer's social model of retardation: rather than a set of expectations that others socialise the individual into according to the social system in which he finds himself, it is seen as a set of expectations (as he perceives them) that

he conforms to as a result of an act of self-definition. In this way, *self-generated* handicap in addition to handicap dictated by external social demands contributes to mental retardation.

It was argued, and hopefully illustrated that institutionalisation in particular, together with special placements and intergroup rather than interpersonal level interactions (perhaps triggered by *others'* self-definitions) are likely to legitimate and enhance retarded social identifications and hence retarded behaviour. However, the curtain did not fall at this point because the final and most important act was yet to come: until then, the notion of self generation had been something of a misnomer, since it approximated more than anything, to an internalisation of and conformity to prevailing norms. Thus, social creativity (e.g. Tajfel and Turner, 1979) was introduced as a set of strategies whereby the individual can resist or avoid self-definition as retarded and so emancipate himself from (self-generated) handicap.

The literature provided anecdotal evidence in support of these ideas, most strikingly in the form of studies in which personalisation mediated greater improvements in adaptive behaviour than training designed directly to improve it. The latter, it was argued, could be counter productive since it was predicated on a retarded social identification.

In Study 5 an informal and preliminary attempt was made to

manipulate the salient self-images of a class of ESN school children. Emphasis on their social identification as special school pupils as opposed to their personal identities, seemed associated with increased intragroup cohesiveness, liking and perceived similarity, and, though less clearly, a changed self-image structure. Concomitant behavioural effects as indexed by ability measures, however, were not pinned down and the field was left wide-open for further research: more sensitive measures more rigorously applied, it was hypothesised, would reveal deficits in test scores when children's self-definitions as special pupils are salient. Furthermore, the relationship between such hypothesised deficits and increased self-concept of ability based on intragroup comparisons, in particular, needed further theoretical consideration and experimentation. Nevertheless, it was concluded that self-concept measures designed to show whether self-images are personalised or based on membership of special schools or institutions, might provide a means to index the handicapping (or otherwise) effects of such placements, both directly and in employment and other situations.

Chapter 5, in being particularly informal and attempting to extend the present principles to self-concept of ability and ability measures (an area that requires a thesis on its own), highlights the preliminary, exploratory methodological status of the present work, which throughout has tried to find a conceptual fit between a transactional view of

development and social identity theory and to begin to apply the resultant synthesis in the field of mental retardation. Little direct guidance was found in the literature. Brehm, Kassin and Gibbons (1981) argue that theirs is the first comprehensive presentation of efforts to integrate social and developmental psychology. Furthermore, Bronfenbrenner (1979) notes the unconventional nature of his conception of the individual's environment and Lerner and Busch-Rossnagel (1981) cite the recentness of the emergence of the transactional view of development, together with its theoretical pluralism. Finally, social identity theory is still very much in the course of its development (e.g. Turner, 1981a, 1984), and indeed, the present approach has suggested that the effects on behaviour (as well as on self-esteem) particularly of a negative social identification, might be one useful direction for future consideration. Given this background, it is not surprising that the present work is predominantly heuristic, not confirmatory (Everitt and Dunn, 1983).

A great advantage of the present approach, on the other hand, is its inherent optimism, since in addition to public and professional beliefs, handicap might be alleviated by intervention directed at the retardate himself. I agree with the Gunzburgs (1973) and Zigler (1966), that we simply do not know what improvements might arise if they experienced a more normal environment and history. Thus, perhaps the most important contribution is that a normal

environment, at least in part, can be conceptualised as a psychological state within the individual. It need not wait for changes at the macrosystem level, in public policy, ideology, or building work to permeate the beliefs of others, professional roles or interactions. Rather, a normal environment may begin with an emphasis on idiosyncratic personal identities as opposed to shared social identifications. In this sense, the present approach offers a theoretical vehicle for the principles of normalisation and personalisation (e.g. Gunzburg and Gunzburg, 1973). Furthermore, implementation of present ideas do not require extensive financial investment in new buildings, increased staffing levels or materials.

Another advantage in the present approach is its wide potential use in other fields and a plethora of exciting possibilities for research is envisaged. Informally to name just three areas of personal interest, Emler (1984) emphasises the importance of *social* psychological (as opposed to dispositional factors or mob instincts), in understanding delinquency, which he suggests, might be mediated by behaving consistently with a reputation. Clearly, this is very close to the present approach in which delinquency might represent conformity to a social identification. Indeed, a recent BBC Nationwide program detailed the success of a scheme being piloted in Sheffield, which involves facing young offenders with their victims, to whom they have to explain themselves and make restitution. In the present view, it is not that

this punishment is more severe than conventional methods that deters further crimes, so much as the shift from intergroup (criminal-victim) to interpersonal interactions. Successful rehabilitation of hardened criminals in last resort special units with no bars on the windows, no attempt to lock-up potentially dangerous implements and first name relations with staff (N.B. the opposite to Zimbardo's regime) clearly suggest the present social psychological framework might be a source of fascinating research and useful application in penology.

A second, more harrowing area in which the present approach might prove fruitful is cancer research and research into physical handicap, illness and mental illness in general. While methodological and more especially, ethical considerations might preclude some investigations, particularly in the first area, on a personal note I have known 2 people who have died of cancer, one within weeks and the other, within months of diagnosis and treatment, and I found it impossible not to be struck by the possibility that a resultant social identification as a doomed cancer victim hastened their deaths. On the other side of the coin, the present ideas, linked with medical research, offer fascinating, exciting and potentially valuable possibilities. In very general terms, the discovery of encephalins produced in accordance with subjects' beliefs, suggests that changes in self-images can perhaps produce chemical effects in the human body. Research could reveal whether correlations

exist between beliefs and, for example, certain recovery rates. If found, the possibility of changing beliefs to aid recovery could be explored. Similarly, in the light of both academic and popular publications (e.g. Rosenhan, 1969; Kesey, 1973) it is interesting to hypothesise that much insane behaviour is role determined, legitimated by institutionalisation and sometimes even maintained or triggered by depersonalised intergroup behaviour of staff.

Ageing is a third area in which the present approach might be fruitful. Schaie and LaBouvie-Vief (1974), for example, present serious challenges to the notion of a generalised intellectual decline in the elderly, which they demonstrated was frequently an artefact of cross-sectional measurement, indicative of generational rather than ontogenetic change. Within the present framework, behaviour deficits might occur with age as a result of an ageing self-definition, rather than the ageing process per se. Indeed, in a geriatric unit in a Bristol hospital, the primary problem for a number of residents was constipation, exacerbated by inactivity. The "treatment" was frequently sympathy from relatives, together with the advice that they could not expect to feel well at their age, and should take it easy (Perry, 1979).

Clearly, with earlier retirement and longer life expectancy, research into psychological as opposed to physical ageing is vital, and the present approach might prove invaluable.

As these examples suggest, the range of application for the

present approach is enormous. It could be applied to sex differences in behaviour or any instance of what Bronfenbrenner calls an ecological transition, for example, entering school, marriage, having a baby and so on. Indeed, the conceptual distinction between adults and children that was mentioned in Chapter 1, might itself be responsible for much childish behaviour, and it would be fascinating to examine expectations about children, together with their self-concepts and behaviour in other cultures.

At first sight, perhaps this example seems to go too far: it is difficult to imagine that children behave childishly for any reason other than the fact that they are children, a thought which introduces the final, self-referential point (which was also one of the first points raised in Chapter 1): the pursuit of science itself in many respects exemplifies the present framework, the choice of subject matter and the interpretation of data depending not on objective reality so much as on prevailing world views and professional allegiance (Kuhn, 1974). Thus, it is hoped that in addition to suggesting a social psychological pathway whereby mental retardation might be alleviated, the present work has also stressed the socially constructed and hence the permeable nature of "scientific fact".

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APPENDICES

For all the coming appendices, raw data and complete computer outputs are available.

2.1 The item pool

awareness of stigma	can be affectionate
being different	mentally subnormal
childlike emotions	are not made of glass
difficulty in communicating	usually friendly
suffer in institutions	uncomplicated
a social problem	literacy poor
sometimes shy	need careful looking after
may feel inferior	have feelings
extrovert	they like friends
outcasts	slow witted
can't stand frustration	happy when treated nicely
must be treated firmly	awkward
discriminated against	odd eyes
an important part of society	treat as equals
clinging	incongruous facial expressions
generally happy	numeracy poor
tendency to frustration	smile too much
might feel unwanted	can be lovable
less attractive than normal	craving for love
incongruous facial expression	misfits
always people	are people
not vegetables	a bit trying to parents
sometimes clumsy	socially unacceptable
sallow faced	backward
act oddly	nice to know
not as clever as normal	may be inhibited
intelligence often under-rated	may be one ahead
untidily dressed	lonely
changeable moods	reduced developmental potential
are independent	offensive sometimes
uncommunicative	"them"
often set apart in institutions	deviant
might feel rejected	smelly
need loving	easily pleased
low intelligence	slow learners
often not accepted socially	difficult to provide for
low IQ	dependent on other people
deprived	frightening
repulsive	group that disconcerts others
difficult to employ	people are afraid
inequality	have exaggerated expressions
treated as aliens	have sparse hair growth
make me pity	often withdrawn
arouse sympathy	are very loving
fits of excitement	in a class of their own
strange	socially inept
show a certain innocence	scarey
happy in their own way	must be lonely
very strong	should be disciplined

unpredictable
normally happy
like to join in if possible
vulnerable
physically distinguishable
are unintelligent
might feel backward
lumbering
make me feel uneasy
should go to special schools
emotionally labile
tend to be childlike
are misunderstood
need a lot of compassion
need a lot of attention
look funny
are ugly
a danger to society
surprising if good looking
can be spiteful
difficult to relate to
might feel self-conscious
placed in old hospitals
trying
probably feel happy
clean
sometimes appear morose
often underestimated
costly to parents
are outcasts
make people uneasy
need specialised care
loud
extremes of mood
often too sheltered
more likely to be exploited
sometimes look very strange
subject of social taboos
appear odd
embarrassing
can be overpowering
helpless
appearance is slightly unusual
sad
still human beings
hard to accept
isolated
tend to become introverted
very trusting
low general knowledge
are happy
gets depressed
difficult for families
cheerful
dependent
frustrated

aggressive
are stupid
wear old clothes
can respond to other people
make me feel self conscious
helpers must be saints
want to live like normal people
bit frightening
try to be helpful
may be ignored
difficult to communicate with
strong personalities
minority group
homely
often look unusual
often rejected by parents
socially less mature
upsetting
are annoying
simple minded
affectionate
are poor mixers socially
appear different
poor speech
unhappy
are loving
seem to be overweight
different
not as intelligent as normal people
don't seem to feel self-conscious
enjoy eachothers company
helpful
friendly
might be friendless
quiet
look slow and stupid
often have low self-esteem
suffer a lot
beautiful
low mental age
harmless
easy to talk to
loving appearance
likeable
sometimes violent
clever in their own special way
gullible
get over excited
usually appear dirty
have problems communicating
frustrating
uncaring
usually shy
all look fairly similar
stand out from others
difficult to get on with

not really understood	cannot communicate coherently
get hurt	vacant
ostracised	try but don't always understand
unkempt	tend to shout or talk loudly
draining	are sometimes uncontrollable
feel underprivileged	make me feel strange
lack of concentration	want affection
upset by society's rejection	dress differently
react to kindness	individual
hidden away	often with childlike way of life
reduced potential for learning	difficulty in following arguments

often bewildered and hurt by others reaction
can lead a normal life for capabilities
have to be well looked after
get frustrated because they can't express needs
can interpret emotions if not too retarded
less able to cope with social and intellectual life
find it hard to adjust to society
probably register more than we realise
are people and need to be treated as such
not able to participate in normal society
should be in a home environment where possible
perhaps feel insecure because have to rely on others
can find a place to fit in and do a useful job
need people with a lot of patience
feeling of inadequacy in self as should do more for them
often felt they should be locked away
difficult to assess how aware they are
bring them into ordinary work as much as possible
usually feel lonely as many don't take notice of them
should be treated as normally as possible
have to rely on other people
might appear frightening to others
couldn't live with someone like that
slower to respond in most situations
not discriminating in their relationships
not equipped with normal social skills
I feel sorry for them because I have more intelligence
show them you have affection as with any child
communicate more by physical contact than normal
liable to abuse, physical or mental
not able to work things out for themselves
are demanding on their families
never forget they're human beings
they are humans no matter how they look
should not be swept under the social carpet
for many, hospital is the only place
often used in describing children
unawareness of other people
alarming to meet for first time
may still be very bright and should not be humiliated
can hurt people when they grab them but don't realise
have childish simplicity in reasoning
sometimes frightening to younger people
some have no control over their actions

can be happy in a secure environment
if severe, unable to live in the community
might have no control over their actions
make people feel guilty
society has a responsibility to them
often see things more clearly than we do
it's important to train them to integrate
great strain to parents unless family is united and caring
like to join clubs and meet friends
physically identical to normal people
often their physical appearance puts people off
need a great deal of contact and security
let them mix with other children under supervision
have problems with social relationships
unaware of someone else's feelings
inability to cope with normal classroom situation
can often tell by physical appearance that they are retarded
simple but genuine in their affection
shouldn't be trained but left to develop in whatever way they can
have own personality like anyone else
difficult to understand their speech
given company, retarded child likely to get better
may have difficulty in communicating
poor conceptual knowledge on entering school
never thought of as growing old
if I met one, I would try to be friendly
slow development in relation to normal
stopped developing earlier than usual
they like to do things for themselves
keep the same mental age groups together
sometimes appear likely to freak out
have more to offer than most realise
more integration so normal people meet them
often have poor motor coordination
can be intelligent but not in some ways
found embarrassing by normal people
appearance probably normal except a little untidy
often have a lot of love for people willing to be friendly
feel very upset about how they differ from others
respond lovingly by grabbing your hand
may not be able to look after themselves completely
hidden in special schools, when integration into the
community would help
would be able to run about the same as normal people
have few concepts of good and bad
may show socially inappropriate reactions
to be able to get on with things in their own way
happier than a lot of ordinary people
susceptible to exploitation e.g. prostitution
haven't got as much intelligence as us
often stronger than normal people
if I met one, I would make them feel happy
can't really enjoy the things we enjoy
have not found success as measured by exams
send to special schools if badly retarded

usually stand out from others
criminal tendencies, public should be safeguarded
one feels they show more contentment with life at times
mostly look happy as they don't know a lot to worry them

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AVAILABLE

Poor text in the original
thesis.

Some text bound close to
the spine.

Some images distorted

OCCUPATION	AGE	SEX	
trusting	___:___:___:___:___:___:___		wary
unco-ordinated	___:___:___:___:___:___:___		graceful
uncommunicative	___:___:___:___:___:___:___		talkative
secure	___:___:___:___:___:___:___		insecure
noisy	___:___:___:___:___:___:___		quiet
friendly	___:___:___:___:___:___:___		unfriendly
healthy	___:___:___:___:___:___:___		unhealthy
valuable	___:___:___:___:___:___:___		worthless
relaxing to be with	___:___:___:___:___:___:___		upsetting to be with
loving	___:___:___:___:___:___:___		cold
over-estimated	___:___:___:___:___:___:___		under-estimated
ugly	___:___:___:___:___:___:___		good-looking
speech clear	___:___:___:___:___:___:___		speech unclear or impeded
dependent	___:___:___:___:___:___:___		independent
frustrated	___:___:___:___:___:___:___		contented
active	___:___:___:___:___:___:___		passive
unable to cope	___:___:___:___:___:___:___		able to cope
good at concentrating	___:___:___:___:___:___:___		bad at concentrating
lonely	___:___:___:___:___:___:___		not lonely
moody	___:___:___:___:___:___:___		even-tempered
easy to relate to	___:___:___:___:___:___:___		difficult to relate to
family's pride	___:___:___:___:___:___:___		family's shame
unemployable	___:___:___:___:___:___:___		employable
predictable behaviour	___:___:___:___:___:___:___		unpredictable behaviour
self-content	___:___:___:___:___:___:___		would like to be different
well dressed	___:___:___:___:___:___:___		badly dressed
childlike	___:___:___:___:___:___:___		mature
frequently ill	___:___:___:___:___:___:___		resistant to illness
quick	___:___:___:___:___:___:___		slow
over-protected	___:___:___:___:___:___:___		underprotected
understood	___:___:___:___:___:___:___		misunderstood
embarrassing	___:___:___:___:___:___:___		soothing
strong	___:___:___:___:___:___:___		weak
good at expressing meaning or desires	___:___:___:___:___:___:___		bad at expressing meaning or desires
sad	___:___:___:___:___:___:___		happy
attractive friend	___:___:___:___:___:___:___		unattractive friend
introvert	___:___:___:___:___:___:___		extrovert
will find a job easily	___:___:___:___:___:___:___		will have trouble finding a job
abnormal	___:___:___:___:___:___:___		normal
clean	___:___:___:___:___:___:___		dirty
frightening	___:___:___:___:___:___:___		reassuring
development determined from birth	___:___:___:___:___:___:___		development shaped by environment

APPENDIX 2.2 Cont.

like others in the same social group	___:___:___:___:___:___:___	not acquainted with the same social group
asset to society	___:___:___:___:___:___:___	burden to society
confident	___:___:___:___:___:___:___	hesitant
low intelligence	___:___:___:___:___:___:___	high intelligence
sexually permissive	___:___:___:___:___:___:___	sexually restrained
sensitive to others	___:___:___:___:___:___:___	insensitive to others
excitable	___:___:___:___:___:___:___	calm
high self-esteem	___:___:___:___:___:___:___	low self-esteem
repulsive	___:___:___:___:___:___:___	lovable
cheering	___:___:___:___:___:___:___	depressing
confused thinker	___:___:___:___:___:___:___	clear thinker
rich family background	___:___:___:___:___:___:___	poor family background
knowing right from wrong	___:___:___:___:___:___:___	not knowing right from wrong
simple	___:___:___:___:___:___:___	complicated
aggressive	___:___:___:___:___:___:___	not aggressive
good at concentrating	___:___:___:___:___:___:___	easily distracted
nice	___:___:___:___:___:___:___	nasty
accident prone	___:___:___:___:___:___:___	always careful/never hurt
wanted	___:___:___:___:___:___:___	unwanted
vulnerable	___:___:___:___:___:___:___	tough
wide general knowledge	___:___:___:___:___:___:___	limited general knowledge
unacceptable neighbour	___:___:___:___:___:___:___	acceptable neighbour
well treated	___:___:___:___:___:___:___	hard done by
untidy	___:___:___:___:___:___:___	tidy
socially skilled	___:___:___:___:___:___:___	socially inept
unusual appearance	___:___:___:___:___:___:___	normal appearance
wanting to join in	___:___:___:___:___:___:___	preferring to be alone
neurotic	___:___:___:___:___:___:___	stable
deceitful	___:___:___:___:___:___:___	trustworthy
fine facial features	___:___:___:___:___:___:___	coarse facial features
controlled by others or Fate	___:___:___:___:___:___:___	controlled by self
popular	___:___:___:___:___:___:___	friendless
dangerous	___:___:___:___:___:___:___	safe
strain for family	___:___:___:___:___:___:___	tonic for family
nasty to live with	___:___:___:___:___:___:___	nice to live with
Predictable personality	___:___:___:___:___:___:___	unpredictable personality
helpless	___:___:___:___:___:___:___	capable
unhelpful	___:___:___:___:___:___:___	helpful
demanding	___:___:___:___:___:___:___	undemanding

Thankyou for co-operating. Please check that you have not missed any items.

Finally, please indicate if you are personally acquainted with any member of the target group.

YES _____

NO _____

APPENDIX 2.3
Instructions for completing
the semantic differential

INSTRUCTIONS

The purpose of this study is to measure the meaning of certain things by getting various people to judge them against a series of descriptive scales.

You will be given a list of scales and a target word to be judged on each of the scales in order. Please judge what the target MEANS TO YOU PERSONALLY, AND NOT what you think it ought to mean, or what MIGHT BE MORE TRUE OR ACCURATE.

Don't puzzle over scales because your first impressions are wanted - On the other hand please don't be careless, since it's important to have a true picture of your beliefs.

Make each scale a separate item, uninfluenced by any others. Don't try to remember how you checked similar scales earlier. Don't look back and forth through the scales.

Here is how to use the scales:

If you feel the word you are given is very closely related to one end of the scale, place your check mark so:

fair X : ___ : ___ : ___ : ___ : ___ : ___ : unfair

or so

fair ___ : ___ : ___ : ___ : ___ : ___ : X : unfair

If you feel the word is somewhat related to one end of the scale, place your check mark so:

fair ___ : X : ___ : ___ : ___ : ___ : ___ : unfair

or so

fair ___ : ___ : ___ : ___ : ___ : X : ___ : unfair

If you feel the word is neutral on the scale, (equally related to both sides) or altogether unrelated to the scale, place your checkmark in the middle space.

fair ___ : ___ : ___ : X : ___ : ___ : ___ : unfair

IMPORTANT

1. Place your checkmarks in the middle of spaces, not on boundaries.
2. Be sure to check every scale.
3. Never put more than one checkmark on a single scale.
4. Make sure you have filled in your name, age, sex and occupation before starting.

2.4a One Factor completely randomised ANOVA
was appropriate to test whether mean differences in beliefs between groups along individual semantic differential items were due to sampling error or likely to indicate that the groups came from different populations. BMDP7D provided the relevant statistical package.

The theoretical justification for using parametric statistics to assess intensity of beliefs as opposed to evaluation was discussed in sections 7.2.1 and 7.4 of Chapter 2. In addition, data should satisfy 3 assumptions:

1. groups should have homogeneous variances, although McCall (1970) states that moderate violations of this assumption have little impact. P7D, however, automatically compares variances and offers an adjustment if they are unequal.
2. groups should be independent - which was achieved by random sampling and using different subjects for each.
3. distributions of data should be normal for each group. According to McCall (1970) and Siegel (1956) only severe violations of this assumption affect results, although as Siegel points out, there is no agreement as to what constitutes "serious". Hence parametric analyses were used unless there was a theoretical reason to expect departures from normality. Many such analyses were performed, for example, to test the effects of acquaintance for lay subjects, psychologists and teachers or (with six levels), the effect of age. Only 1 summary table showing the effect of contact for lay subjects on item 77 "nice/nasty to live with" is given below.

ANOVA Summary table for item 77 "nice/hasty" in Study 1, showing a significant difference in the beliefs of lay subjects with and without personal contact with retardates.

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F VALUE	TAIL PROBABILITY
BETWEEN GROUPS	10.9105	1	10.9105	8.84	0.0031
WITHIN GROUPS	483.8839	392	1.2344		
TOTAL	494.7942	393			

LEVENE'S TEST FOR EQUAL VARIANCES					
		1		8.14	0.0046
		392			

ONE-WAY ANALYSIS OF VARIANCE					
TEST STATISTICS FOR WITHIN-GROUP					
VARIANCES NOT ASSUMED TO BE EQUAL					
		1		7.55	0.0065
		218			
LEVENE'S TEST FOR EQUAL VARIANCES					
		1		7.55	0.0065
		218			

2.4b The Sign Test

Overall differences in evaluation between groups (or in later analyses, conditions) are assessed using the Sign Test, which rests on the single assumption that the variable of interest (evaluation) is continuously distributed. This is appropriate because, as discussed in sections 7.2.1 and 7.4 of chapter 2, semantic differential scores are not hypothesised to load equally on evaluation. That is, a score of 1 might be twice as "intense" as 2 on "happy/sad" but not necessarily twice as "good" - it being possible to say that it is better, but not how much better. Greenbaum and Wang (1965) also used the Sign Test in this way.

The Sign Test examines the directional difference between scores on matched pairs in two conditions, for example between scores on the same semantic differential item, given by unacquainted and acquainted lay subjects. In this case, the relevant (1 tailed) null hypothesis is that the probability that the score for acquainted subjects is smaller (i.e. more positive) = $1/2$ on any item. This may be tested using the binomial theorem, or when the number of pairs is greater than 25, the normal approximation to the binomial distribution, in which $z = \frac{x - .5 - 1/2N}{1/2 \sqrt{N}}$ divided by $1/2 \sqrt{N}$ (where x is the number of smaller acquainted scores, N the number of pairs and $.5$ the correction for continuity, subtracted because x is greater than $1/2 N$. See Siegel, 1956). Many such analyses were performed: for example, using the data from Table 2.1, page 86, where

acquainted subjects are more positive on 71/81 items, $z = 5.5$ and according to normal distribution tables, the probability of such an extreme score is $<.0001$.

2.4c Factor Analysis

In addition to differences in intensity on individual items and overall evaluation, it was thought that beliefs might be underpinned by different, higher-order dimensions. For example, a medical perspective might underpin psychologists' beliefs on a number of variables. R type factor analysis (based on correlations between pairs of variables rather than subjects) was appropriate to explore this idea, since it assumes the existence of a set of variates, or factors, which are sufficient to account for the interrelation between observed variables, (e.g. Maxwell, 1977; Everitt and Dunn, 1983; Kim and Mueller, 1978; Van de Geer, 1971; Morrison, 1967; Kerlinger, 1969; Gorsuch, 1983).

Futhermore, as discussed in section 7.2.2 of Chapter 2, its use with the semantic differential has been extensive. However, it must be stressed from the onset that its use in the present context is merely preliminary i.e. to see whether factor solutions can add meaning and richness to the primary (unidimensional) analyses, and hence, whether they are worth persuing in future research.

BMDP4M provided a suitable statistical program, however, since the present work load has been heavy, time has only permitted familiarisation with the conceptual bases of the technique together with the first principles of matrix algebra and factor extraction rather than with calculating algorithms, which even the experts (e.g. Gorsuch, 1983) describe as formidably complex. Indeed, consultation of the cited works transformed use of the powerful factor analysis

package into a subjective experience that must parallel that of the Sorcerer's Apprentice. For these reasons, the method advocated by the BMDP programmers, which is also that recommended by Gorsuch (1983) for preliminary exploratory analyses, has been adopted. Thus, initial factors were extracted using principal components analysis. This makes no assumptions regarding data structure, and is not based on an underlying factor model, the parameters of which are to be estimated. Rather, it is a mathematical technique for reducing the dimensionality of observed data. In practical terms, this means that the variance-covariance matrices to be factored are unadjusted and therefore have diagonal elements that are unity, that is, self correlations which are equivalent to variances. It is, however, worth noting Gorsuch's (1983) remark that with 30 variables or more - as is the case in all present analyses - this model differs little from others, because diagonal elements form a smaller proportion of the matrix so whether or not they are adjusted has less impact.

At this point, a note on terminology is helpful: "factor analysis" refers to the class of techniques concerned with discovering latent factor variates which account for observed variation in (a larger number) of responses. Writers like Gorsuch, (1983) describe principal components analysis (PCA) as based on a full-component as opposed to a common factor model of factor analysis and indeed, the arrangement of the BMDP package reflects this hierachical

conception. Confusion arises because different experts (e.g. Maxwell, 1978; Chatfield and Collins, 1980) employ different terminology, conceptualising PCA as distinct from factor analysis. The latter term, they reserve for the more complex technique of estimating the parameters of underlying factors assumed to account for the correlation between observed variables. In short, confusion is avoided if it is remembered that "factor analysis" in this thesis is used in its general sense and specifically refers to principal components.

The method derives a first component (or factor) which is a linear combination of variables, accounting for more variance than any other combination. The second component accounts for as much as possible of the residual variance and so on.

Although an underlying factor structure produces a unique pattern of correlations, the reverse is not the case (Kim and Mueller, 1978) and many statistically equivalent solutions may be derived from the same variance-covariance matrix. In order to obtain a simpler solution, therefore, Varimax (orthogonal) rotation was performed, which is an entirely empirical method of maximising (and minimising) the loading of variables on the derived components. Being orthogonal, this had the advantage of being less costly in computer time, easier to interpret and more important, it is appropriate to semantic differential scores, which were originally hypothesised to represent loci in terms of

uncorrelated cognitive dimensions (see Chapter 2, part 7.2.2 and Osgood et al, 1957).

BMDP automatically yields components or factors with eigenvalues of at least 1 (which ensures they account for at least as much variance as a single variable). However, in the interests of clarity, rotated solutions were examined to determine the minimum number of components accounting most meaningfully for the bulk of variance. Following Gorsuch (1983), 75% was taken as a useful cutoff, particularly when additional factors (components) explained little more variance. In addition, a rough intuitive scree test was performed, in that eigenvalues (ranked according to size) were visually scrutinised for a cutpoint below which decreases were comparatively small. New eigenvalues were then specified to yield this number of factors in terminal solutions, which were computed in the way described above.

At this point, since studies 4 and 5 have more variables than subjects, a note on sample size is appropriate: writers like Lawley and Maxwell (1971, 1973) for example, suggest as a rule of thumb, that the number of subjects should be at least the number of variables + 51. Similarly, Gorsuch, (1983) suggests a ratio of 5 to 10 subjects per variable, although he remarks that there is no generally recognised criterion. More generally speaking, the number of variables should be less than the number of subjects for multivariate techniques, and indeed, Cattell, (1978) describes this point as the "extreme indeterminacy". It must however, be

stressed that these comments apply to "classical" factor analyses (i.e. the common factor model) and not to principal components analysis, as used here: In the course of a technical exposition of the underlying matrix algebra, Chatfield and Collins, (1980) explain that the reason for having more subjects than variables is to avoid singularities. This, however, is not relevant to PCA since it does not involve matrix inversion. To illustrate, they write:

As another example of the use of PCA in reducing dimensionality, one of the authors recently attempted a discriminant analysis where data consisted of two groups of ten observations on 28 highly correlated variables. As the number of observations is less than the number of variables, there will be unpleasant singularity problems unless the dimensionality is drastically reduced. A PCA revealed two important dimensions and an effective discriminant function was constructed using these two new variables rather than the original 28.

1980, p. 76

Furthermore, they also suggest the use of PCA to reduce the number of variables for "classical" factor analysis. In other words, PCA is simply a mathematical method for reducing the dimensionality of observed data.

In addition, PCA does not involve assuming the existence of an underlying model and estimating its parameters. For this reason too, it is appropriate with smaller samples. Third, Gorsuch (1983) remarks that the strength of the phenomenon determines the replicability of factors, and primary analyses suggested the effects of social identification were indeed strong. Furthermore, the PCA's actually carried out

were often consistent with these, and therefore, cross-validated to some extent, and sometimes, they were also theoretically enlightening. Finally, in personal consultation, Bristol University Computer Centre's Statistical Advisor suggested that the real justification of PCA on the sample sizes actually used, is in the sense and fruitfulness of results.

Because factor analysis was desired for exploratory rather than confirmatory purposes, derivation of the underlying variates was the end and further analyses were not undertaken. More exacting use including perhaps that of Q techniques and common factor models, must await future theoretical development of the present approach together with greater personal mathematical expertise.

2.4d Two factor ANOVA

was used to examine directly the relationship between occupation (with 3 levels) and personal contact (2 levels), to see whether the mean differences in beliefs between psychologists, lay subjects and teachers, already implied by the previous analyses, represented population differences or sampling error, and whether occupation and contact interacted as hypothesised. BMDP2V provided the appropriate statistical program, and the assumptions underlying its use are the same as for one factor anova (discussed in appendix 2.4a) with the addition that factors are assumed to be fixed, not random. By definition, contact has 2 fixed levels and the occupations were designated that is, "fixed" rather than randomly selected (see McCall, 1970). One summary table, for item 1 "trusting/wary" is presented.

ANOVA summary table showing non significant main effects and interaction for occupation and contact on item 1 in Study 1.

SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROB.
OCCUPATION	1314.28611	1	1314.28611	540.92	0.0000
CONTACT	12.61533	2	6.30766	2.60	0.0756
INTERACTION	4.09377	1	4.09377	1.68	0.1949
ERROR	3.76836	2	1.88418	0.78	0.4611
	1154.11190	475	2.42971		

2.4e T tests

Where two factor ANOVA indicated a significant difference between occupational groups, it was desirable to test whether (as hypothesised) this was due to the psychologists. Thus T tests, which are specifically designed to test for differences between two means, were run on each item between each possible pair of groups. The assumptions are the same as those underlying one factor ANOVA (appendix 2.4a) and BMDP3D provided the appropriate program. Just one example table is given - that for psychologists versus lay people on "relaxing/upsetting to be with".

T test showing a non-significant difference between psychologists and lay people on item 9 in Study 1.

* X(10)	* VARIABLE NUMBER	10		GROUP	1 PROF (Ψ)	3 LAY
***** (i.e. dependent variable 9)						
	STATISTICS	P-VALUE	DF	MEAN	4.9231	4.8445
T (SEPARATE)	0.42	0.6737	70.4	STD DEV	1.2342	1.4409
T (POOLED)	0.38	0.7075	449	S.E.M.	0.1712	0.0721
				SAMPLE SIZE	52	399
				MAXIMUM	7.0000	7.0000
				MINIMUM	1.0000	1.0000
(FOR VARIANCES)						
LEVENE	4.37	0.0371	1, 449			

2.4f Chi Square

The Chi-square test makes no assumptions regarding the nature of data, except that observations are independent. It is used to test whether a significant difference exists between the number of responses falling into various categories, and the numbers expected on the basis of a null hypothesis. Chi square is simply the sum of the square of each difference between the observed and expected value, divided by the expected value. The known sampling distribution of chi-square is then consulted with degrees of freedom given by the number of categories minus 1 to obtain the (2 tailed) probability of any computed value. (Siegel, 1956).

For example, using the data on page 132, chi square was used to test whether the number of most positive responses falling into each of the 6 age groups differs from the number expected by chance (i.e. one sixth). Chi square = 26.6 with d.f = 5, $p < .0001$.

APPENDIX 3.0
The CHES Questionnaire
based on the semantic
differential for Study 1

Two sets of scales or profiles are provided. Please complete the first profile in accordance with your own concept of an average 11 year old child attending an ordinary school and of the same sex as the study child.

Work at fairly high speed through these scales. Do not worry or puzzle over individual items. It is your first impressions, your immediate "feelings" about the items that we want. On the other hand, try not to be superficial, because we want your *true* impressions. We realise that it may be difficult to picture an 'average' child. However, it is *your* impressions that we are interested in. Please fill in the scales as best as you can.

PROFILE OF AVERAGE CHILD OF 11 YEARS

sensitive to others	__:__:__:__:__:__:__	insensitive to others
obstructive	__:__:__:__:__:__:__	helpful
strain for family	__:__:__:__:__:__:__	easy for family
wanting to join in	__:__:__:__:__:__:__	preferring not to join in
physically unattractive	__:__:__:__:__:__:__	physically attractive
socially skilled	__:__:__:__:__:__:__	socially inept
easily distractable	__:__:__:__:__:__:__	not easily distractable
badly dressed, unkempt	__:__:__:__:__:__:__	well dressed, tidy
accident prone	__:__:__:__:__:__:__	always careful
aggressive	__:__:__:__:__:__:__	not aggressive
knowing right from wrong	__:__:__:__:__:__:__	unaware of right and wrong
confused thinker	__:__:__:__:__:__:__	clear thinker
high self-esteem	__:__:__:__:__:__:__	low self-esteem
excitable	__:__:__:__:__:__:__	calm
clean	__:__:__:__:__:__:__	dirty
popular with peers	__:__:__:__:__:__:__	unpopular with peers
sad	__:__:__:__:__:__:__	happy
persevering	__:__:__:__:__:__:__	unpersevering
good at expressing self	__:__:__:__:__:__:__	bad at expressing self
very immature	__:__:__:__:__:__:__	mature
predictable	__:__:__:__:__:__:__	unpredictable
easy to relate to	__:__:__:__:__:__:__	difficult to relate to
good at concentrating	__:__:__:__:__:__:__	bad at concentrating
easily frustrated	__:__:__:__:__:__:__	not easily frustrated
dependent	__:__:__:__:__:__:__	independent
speech clear	__:__:__:__:__:__:__	speech unclear or impeded
industrious	__:__:__:__:__:__:__	lazy
healthy	__:__:__:__:__:__:__	prone to illness
loving, friendly	__:__:__:__:__:__:__	cold, unfriendly
secure	__:__:__:__:__:__:__	insecure
uncommunicative	__:__:__:__:__:__:__	communicative
poorly co-ordinated	__:__:__:__:__:__:__	graceful, agile
co-operative	__:__:__:__:__:__:__	unco-operative
anxious	__:__:__:__:__:__:__	unworried

Tick one box

What was the sex of the child you have just described?

Male

Female

31. Reproductions of the slides used in studies 2 and 4.
 (due to the enormous cost, only b+w reproductions could be provided,
 the originals, which are available, are colour.)

4/4

13/12 12/11

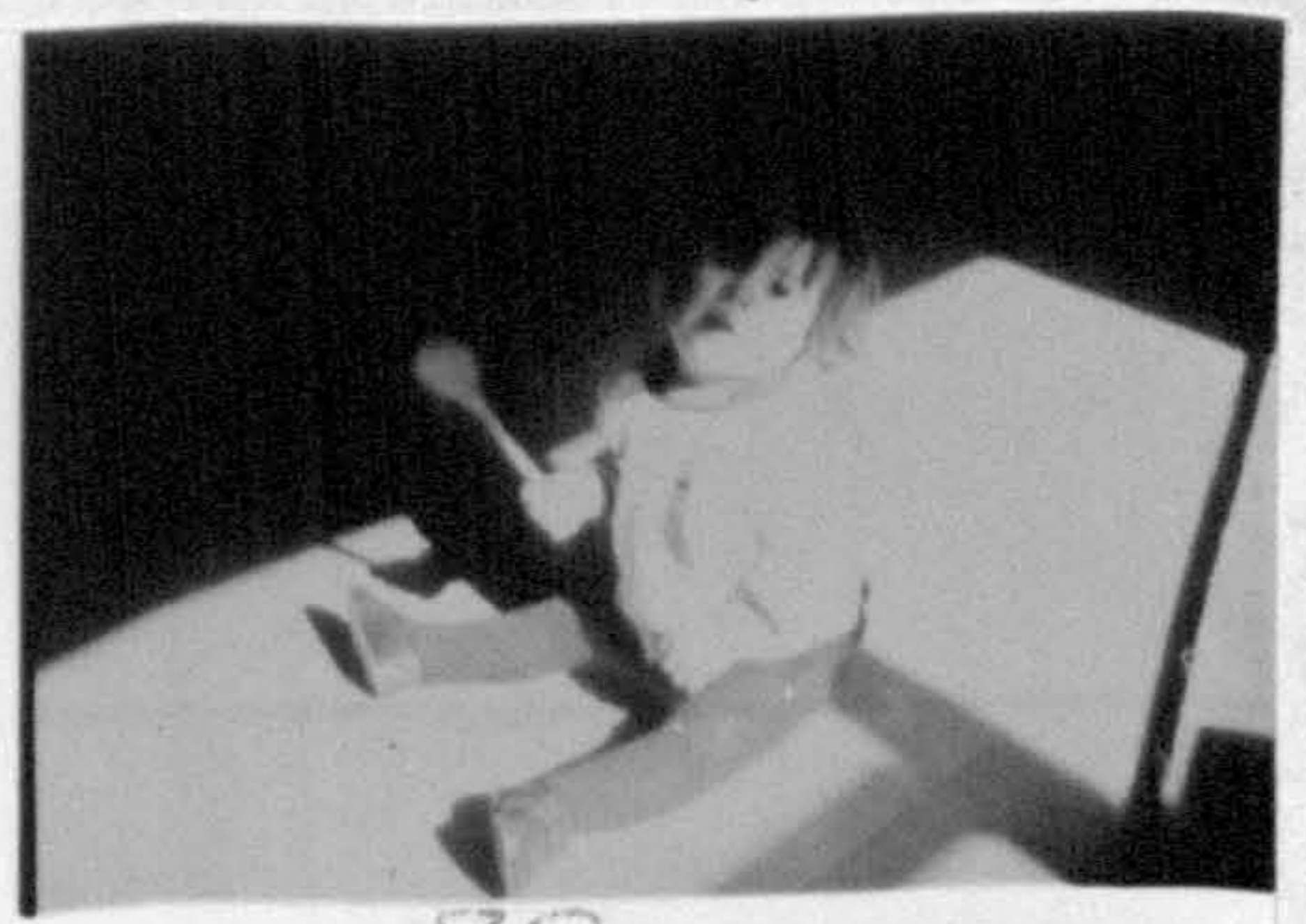
1



5



18/15



20



17



11

10/10



7/7



15/11



19/19



2/2



8



6/6



16



3/3



9



14/18



APPENDIX 3.2
 Semantic differential for
 Study 2

SLIDE NO. _____

GROUP NO. _____

poorly co-ordinated	: : : : : :	graceful, agile
uncommunicative	: : : : : :	chatty
secure	: : : : : :	insecure
loving, friendly	: : : : : :	cold, unfriendly
healthy	: : : : : :	prone to illness
speech clear	: : : : : :	speech unclear or impeded
over dependent, helpless	: : : : : :	wants to take care of self
frustrated	: : : : : :	contented
good at concentrating	: : : : : :	bad at concentrating, distractable
physically handicapped	: : : : : :	physically normal
family's pride	: : : : : :	family's shame
easy to relate to	: : : : : :	difficult to relate to
predictable	: : : : : :	unpredictable
childish for age	: : : : : :	mature for age
quick learner	: : : : : :	slow learner
noisy	: : : : : :	quiet
well understood	: : : : : :	poorly understood
embarrassing	: : : : : :	not embarrassing
good at expressing self	: : : : : :	bad at expressing self
sad	: : : : : :	happy
attractive as a friend	: : : : : :	not attractive as a friend
clean	: : : : : :	dirty
frightening	: : : : : :	not frightening
asset	: : : : : :	burden
low intelligence	: : : : : :	high intelligence
excitable	: : : : : :	calm, stable
high self esteem	: : : : : :	low self esteem
confused thinker	: : : : : :	clear thinker
knowing right from wrong	: : : : : :	unaware of right and wrong
aggressive	: : : : : :	not aggressive
accident prone	: : : : : :	always careful, never hurt
wanted	: : : : : :	unwanted
untidy	: : : : : :	tidy
socially skilled for age	: : : : : :	socially inept for age
strange facial appearance	: : : : : :	normal facial appearance
wanting to join in	: : : : : :	preferring not to join in
strain for family	: : : : : :	easy for family
nasty to live with	: : : : : :	nice to live with
obstructive	: : : : : :	helpful, well meaning
normal	: : : : : :	abnormal
sensitive to others	: : : : : :	insensitive to others, living in 'own little world'
unwelcome to live next door	: : : : : :	welcome to live next door

3.3a One factor completely randomised analysis of variance using BMDP7D was employed to test whether (1) mean perceived intergroup differences on each variable between subjects in labelled and unlabelled conditions and (2) labelling effects on each variable for each target were due to chance factors. Since the situation is analogous to that described in Appendix 2.4a, further justification will not be undertaken.

3.3b Two factor completely randomised analysis of variance was used to examine the effect of personal contact and condition on intergroup differences in a manner analogous to Appendix 2.4d.

3.3c Two factor analysis of variance including a repeated measure was appropriate to analyse intraclass differences. The first factor was between subjects with 2 levels: label vs no label. The second, target type, also had two levels (normal vs subnormal) but was within subjects - i.e. a repeated measure, each subject yielding a score for both.

3.3d Three factor ANOVA including a repeated measure was appropriate simultaneously to examine the effect of personal contact on intraclass differences, and was added to the foregoing design. BMDP2V performed the appropriate calculations and an example summary table for each type follows.

Analyses for the subsidiary experiment followed exactly the same course, and as before, the sign test assessed overall effects.

3.3c

ANOVA summary table showing significant main effects for label and target type on perceived intraclass differences in Study 2 (on item 6, speech clear/unclear).

ANALYSIS OF VARIANCE FOR 6-TH
DEPENDENT VARIABLE - X(7) X(49)

SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROB.
MEAN	83.37705	1	83.37705	236.17	0.0000
G (LABEL)	1.98669	1	1.98669	5.63	0.0234
ERROR	11.98802	34	0.35259		
R (TARGET TYPE)	2.67575	1	2.67575	6.87	0.0130
RG	0.20480	1	0.20480	0.53	0.4732
ERROR	13.23284	34	0.38920		

3.3d: ANOVA summary table showing significant main effects for label and personal contact together with a target x label interaction on "secure/insecure".

ANALYSIS OF VARIANCE FOR 3-RD
DEPENDENT VARIABLE - X(5) X(47)

SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROB.
MEAN	86.98962	1	86.98962	232.53	0.0000
G (LABEL)	7.22955	1	7.22955	19.32	0.0001
H (CONTACT)	1.57141	1	1.57141	4.20	0.0487
GH	0.02331	1	0.02331	0.06	0.8045
ERROR	11.97133	32	0.37410		
R (TARGET TYPE)	0.44240	1	0.44240	3.06	0.0896
RG	1.47765	1	1.47765	10.23	0.0031
RH	0.01853	1	0.01853	0.13	0.7225
RGH	0.04225	1	0.04225	0.29	0.5923
ERROR	4.62012	32	0.14438		

3 2 2 2

MEDICAL DIAGNOSIS AND SUBNORMALITY - OPINIONS ABOUT RETARDATEES

poorly co-ordinated	7 ✓	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	graceful, agile
quiet, uncommunicative	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	noisy, chatty
secure	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	insecure
X loving, friendly	3	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	cold, unfriendly
healthy	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	prone to illness
speech clear	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	speech unclear or impeded
dependent, helpless	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	independent, can care of self
frustrated	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	contented
good at concentrating	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	bad at concentrating, distractable
physically handicapped	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	physically normal
family's pride	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	family's shame
easy to relate to	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	difficult to relate to
13 predictable	3	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	unpredictable
childlike	7 ✓	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	mature
15 quick learner	7	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	slow learner
protected and provided for by		:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	not protected and provided for by
X the government	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	the government
X well understood	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	poorly understood
embarrassing	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	soothing
4 good at expressing self	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	bad at expressing self
sad	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	happy
attractive as a friend	7	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	not attractive as a friend
clean	3	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	dirty
X frightening	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	not frightening
development was fixed by birth	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	development shaped by environment
asset to society	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	burden to society
low intelligence	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	high intelligence
rather alike	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	very different to each other
28 excitable	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	calm, stable
high self esteem	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	low self esteem
confused thinker	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	clear thinker
knowing right from wrong	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	unaware of right and wrong
aggressive	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	not aggressive
33 accident prone	7 ✓	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	always careful, never hurt
wanted	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	unwanted
unacceptable neighbour	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	acceptable neighbour
badly dressed, unkempt	3	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	well dressed, tidy
socially skilled	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	socially inept
abnormal facial appearance	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	normal facial appearance
wanting to join in	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	preferring not to join in
mentally ill	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	mentally stable, sane
strain for family	6	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	easy for family member
nasty to live with	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	nice to live with
43 X obstructive	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	helpful, well meaning
normal	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	abnormal
X sensitive to others	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	insensitive to others
should be in special classes	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	should be taught in normal classes
please give your name, age, sex		:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
do you know any retardates		:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	

May 18 F.

same response if individual answers rather than as "medical student"

4.2a Three factor ANOVA including a repeated measure tested the effects of personal acquaintance (2 levels, between subjects), sex (2 levels, between subjects) and predicted social identification (3 levels, within subjects) in a manner analogous to that described in Appendix 3.3c. An example summary table is given below. The effect of actual contact on predictions was similarly examined.

4.2b, 4.2c and 4.2d

One factor completely randomised ANOVA tested the effects of personal contact on subjects' own beliefs, exactly as in Appendix 2.4a, and factor analysis explored the hypothesis that expectations about social identifications prevailed at multidimensional levels, as described in Appendix 2.4c. Once more, sign tests assessed overall differences in evaluation.

ANOVA summary table showing a significant main effect of predicted social identification and sex x contact interaction on item 4b "should/should not be in special classes."

SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROBABILITY
	2026.33846	1	2026.33846	419.91	0.0000
SEX	4.59487	1	4.59487	0.95	0.3382
CONTACT	5.39259	1	5.39259	1.12	0.3002
SXC	25.01652	1	25.01652	5.18	0.0313
ERROR	125.46667	26	4.82564		
IDENT.	45.74676	2	22.87338	8.11	0.0009
IDXS	3.77753	2	1.88877	0.67	0.5163
IDXC	3.76614	2	1.88307	0.67	0.5173
IDXSXC	8.98323	2	4.49162	1.59	0.2132
ERROR	146.68571	52	2.82088		

PERSONALITY AND PERSON PERCEPTION (Visual cues)

APPENDIX 4.3

Rating forms for Study 4

Please give your "name"
Do you know anyone who's retarded?.....

age.....

sex.....

Please indicate whether you think the children in the slides are subnormal, i.e. mentally retarded:-

	+++ certainly retarded	++ probably retarded	+ possibly retarded	- may be not retarded	-- probably not retarded	--- certainly not retarded
1 (holding a wooden spoon)						
2 (wearing a tartan dress)						
3 (wearing a nurses uni- form)						
4 (playing with wooden shapes)						
5 (playing with toy house)						
6 (wearing a red jumper)						
7 (wearing a blue jumper)						
8 (playing with telephone)						
9 (wearing dungarees)						
10 (in the bath <u>RIGHT SIDE</u>)						
11 (in the bath <u>LEFT SIDE</u>)						
12 (blue jumper <u>RIGHT SIDE</u>)						
13 (striped T-shirt <u>LEFT SIDE</u>)						
14 (wearing blue patterned dress)						
15 (playing with mower)						
16 (sat in basket <u>FRONT</u>)						
17 (sat on a go-cart)						
18 (playing with water <u>BACK</u>)						
19 (wearing blue jumper <u>LEFT</u>)						
20 (sleeping)						

Please indicate whether you think the children in the slides are subnormal, i.e. mentally retarded:-

	+++	++	+	-	--	---
	certainly retarded	probably retarded	possibly retarded	may be not retarded	probably not retarded	certainly not retarded
1 (holding a wooden spoon)						
2 (wearing a tartan dress)						
3 (wearing a nurses uniform)						
4 (playing with wooden shapes)						
5 (playing with toy house)						
6 (wearing a red jumper)						
7 (wearing a blue jumper)						
8 (playing with telephone)						
9 (wearing dungarees)						
10 (in the bath <u>RIGHT SIDE</u>)						
11 (in the bath <u>LEFT SIDE</u>)						
12 (blue jumper <u>RIGHT SIDE</u>)						
13 (striped T-shirt <u>LEFT SIDE</u>)						
14 (wearing blue patterned dress)						
15 (playing with mower)						
16 (sat in basket <u>FRONT</u>)						
17 (sat on a go-cart)						
18 (playing with water <u>BACK</u>)						
19 (wearing blue jumper <u>LEFT</u>)						
20 (sleeping)						

4.4a Sensitivity (area) measures were computed using a program in Bristol University's Psychology Department statistical library. An example is given below.

Rating categories range from "certainly retarded" to "certainly not retarded" and the input is the number of retarded and non-retarded targets falling into each.

THERE ARE 6 RATING CATEGORIES FOR THIS DATA SET.

INPUT		CUMULATED INPUT	
1	3	1	0
1	3	2	0
4	1	6	1
1	2	7	3
3	7	10	10
0	0	10	10

AREA UNDER THE ROC IS .765

See p.294 for a discussion of response bias measures

Mann Whitney's U

tested whether subjects in medical and personal conditions differed in their ability to distinguish retarded from normal targets (2 tailed test) and whether those in the former condition were more biased towards classifying targets retarded when in doubt (1 tailed). This test was appropriate because it makes no assumptions respecting the distribution of scores, which need only be at an ordinal level of measurement. The null hypotheses were simply the probability that (1) sensitivity scores in one condition are higher than those in the other = $1/2$ and (2) response bias scores in the medical condition are smaller (more biased) = $1/2$.

To find U in each case, scores from both conditions were ranked in order of size, and U is the total number of times a score in the medical condition is preceded by a score in the personal. (See Siegel, (1956). The normal approximation to the sampling distribution of U gives the probability for the occurrence of the computed U under the null hypothesis. For convenience, calculations were performed with the help of BMDP3S and relevant figures were given in section 8.3 of chapter 4 · page 294.

4.4c Sign Tests

assessed overall differences in evaluation between conditions and males and females, and (4.4d) 2 factor completely andomised ANOVA assessed the effects of condition (medical vs. personal, 2 levels, between subjects) and method of testing (group vs. individual, 2 levels between

subjects) and the significance of sex and contact effects within conditions in a manner analogous to that described in Appendix 2.4b and 2.4d.

4.4e Variance ratios

were examined using F distribution tables to see whether conformity was greater in medical as opposed to personal conditions. However, statistical variance was found to be inappropriate as a measure of behavioural conformity, as discussed in section 8.4 of chapter 4 p. 310 and section 4.4 of chapter 5, p. 416.

4.4f and 4.4g

Chi square tested whether condition and method of testing were independent in their effects on overall evaluation as described in Appendix 2.4f. Factor analysis explored multi-dimensional structure of beliefs in medical as opposed to personal conditions.

5.1 Preliminary treatment questionnaires

The Personal Treatment

I'm finding out all about different people, and I'd like you to help with these questions.

My name is.....

I amyears old.

My date of birth is

I have.....brothers andsisters.

My favourite pop group is.....

My favourite TV programme is.....

I live in

My hobby is.....

I sometimes go:

skating	to the disco	to the pictures
to club	to church	to scouts or guides or boys brigade
to the library		

Ilistening to records

My father's job is

When I leave school I would like to be.....

The Pupil Treatment

I'm finding out about people at Florence Brown school and about people in your group. I'd like you to help with these questions.

I have been at Florence Brown School for.....

I am in 's group

I came to Florence Brown School because

Here's a list of the people in your group. We'll read them together and I want you to tell me who you like best.

Here's your group's timetable

My group likes.....best

My group does craft on

My group thinks the good thing about being in S7 is.....

5.2 Semantic Differential Instructions

The next questions all look the same.

This is how they work

A question about how happy you feel would look like this:

I am happy _:__:__:__X:__:__:__ I am sad

If you don't know if you're a happy or a sad person, you'd make a cross in the middle:

I am happy __:__:__:__X:__:__:__ I am sad

If you are usually a happy person, you would make a mark towards the happy end and if you are usually a sad person, you would make a mark in a box towards the sad end.

If you are always very happy, your mark would look like this:

I am happy X:__:__:__:__:__ I am sad

If you are always very sad, your mark would look like this :

I am happy __:__:__:__:__X I am sad

If you are nearly always happy, you'd make a mark like this:

I am happy ___:___X:___:___:___:___:___ I am sad
 If you are nearly always sad, you'd make a mark like this:
 I am happy ___:___:___:___:___:___X:___ I am sad
 If you are usually quite happy, you'd make a mark like this
 I am happy ___:___:___X:___:___:___:___ I am sad
 If you are usually a bit sad , you'd make a mark like this
 I am happy ___:___:___:___:___X:___:___ I am sad

5.3 A note on the self-image instrument

No published self-concept measure seemed relevant to the present interest in retardate social identification, so reluctantly, one had to be devised. In its development, however, the benefit of the present theoretical approach was reaped.

Self-concept was defined as the total of an individual's thoughts about himself, and conceptualised in the form of a constellation of attitudes, (see chapter 3.2). As an aside, it seems impossible that a single instrument could ever encompass this for an individual, let alone a group or society but fortunately, present intentions were less ambitious, confined to whether experimental treatments could enhance a retardate, or more specifically, special school social identification. Thus, the present instrument needed only to concern relevant aspects of self-image at the time of testing.

A semantic differential format was chosen and the search for items began.

1. Items with mean scores $>5<3$ and s.d. <1.3 were chosen from Study 1 as being most relevant, apart from three

relating to employment prospects, neuroticism and abnormality, which were of little interest.

2. Most important, items relating to "group belongingness", - perceived intragroup similarity, empathy and liking were added.

The next stage was to translate the items into a counterbalanced semantic differential-type self image measure, that was suitable for ESN children. Intuition was freely used, and help was gleaned from published instruments, which, incidentally, seemed to be covered by the present item pool, with the exception of self-esteem, about which 3 items were added.

At this stage, I was asked to help devise an instrument as part of a large research program, directed by Dr. Pomeroy at Bristol University's Department of Child Health and hence, the item pool was the basis for the Avon School Leavers Pupil Questionnaire, (Appendix. 5.5).

The prototype semantic differential and its instructions were piloted on a handful of pupils at Florence Brown school. Osgood et al (1957) had recommended only 5 s.d. categories for use with retardates, but 7 appeared to be suitable. Much phraseology needed simplifying - an operation in which the teachers proved invaluable, and a couple of items they were interested in, were added. Similarly, their help was instrumental in constructing and piloting experimental treatments.

A second pilot was run before the final form was confirmed. Before leaving this note, two points need brief discussion. First, validity concerns the ability of a test to measure what it purports. In the present case, criteria of face and content validity and, to some extent, concurrent validity against a variety of other instruments are met a priori. Predictive and construct validity for the time being, remain somewhat circular, since if the predicted results support the expected relation between theoretical constructs, this is as much a validation of the theory as the instrument. Second, reliability, which concerns consistency and accuracy of an instrument, is not strictly relevant for present purposes. Indeed, stable results on a test designed to capture changes in self image, would indicate invalidity. Given more resources, of course, it might be possible to attempt to reconstruct the same testing conditions and look for correlations between test results, although intra individual changes in coping strategies, for example, could never be eliminated. Similarly, no alternative form of the present test exists, and there is no clear unitary underlying construct to accommodate split half reliability.

5.4 The Self-Image Instrument

<i>I'm easy to get on with</i>	_____	<i>I'm hard to get on with</i>
<i>my group doesn't understand me</i>	_____	<i>my group understands me</i>
<i>my family is proud of me</i>	_____	<i>my family isn't proud of me</i>
<i>sometimes I just do things</i>	_____	<i>people always know</i>
<i>without thinking</i>		<i>what I'm going to do</i>
<i>I'm childish</i>	_____	<i>I'm adult</i>
<i>my other school was awful</i>	_____	<i>my other school was good</i>
<i>people like me</i>	_____	<i>people don't like me</i>
<i>people in my class don't help</i>	_____	<i>people in my class help</i>
<i>each other</i>		<i>each other</i>
<i>kids on the street don't</i>	_____	<i>kids on the street</i>
<i>like me</i>		<i>like me</i>
<i>I'm clever</i>	_____	<i>I'm not clever</i>
<i>I trust people easily</i>	_____	<i>I don't trust people easily</i>
<i>I'm good at things like</i>	_____	<i>I'm clumsy at things like</i>
<i>dancing or P.E.</i>		<i>dancing or P.E.</i>
<i>my group & I fool the same</i>	_____	<i>we don't fool the same</i>
<i>about a lot of things</i>		<i>about a lot of things</i>
<i>I'm cleverer than my parents</i>	_____	<i>I'm not as clever as my parents</i>
<i>think I am</i>		<i>think I am</i>
<i>I am good looking</i>	_____	<i>I am not good looking</i>
<i>my group doesn't like me</i>	_____	<i>my group likes me</i>
<i>people know what I'm saying</i>	_____	<i>people don't know what I'm saying</i>
<i>I like people looking after</i>	_____	<i>I like looking after</i>
<i>me</i>		<i>myself</i>
<i>I'm moody</i>	_____	<i>I'm not moody</i>
<i>I don't know why I'm at this</i>	_____	<i>I do know why I'm at this</i>
<i>school</i>		<i>school</i>
<i>kids on the street don't</i>	_____	<i>kids on the street do</i>
<i>understand me</i>		<i>understand me</i>
<i>I get angry if I can't do</i>	_____	<i>I don't mind if I can't do</i>
<i>something</i>		<i>something</i>
<i>(for example, if a piece of work is too hard, or if I'm not allowed out)</i>		
<i>I can manage things myself</i>	_____	<i>I need help with things</i>
<i>I can't concentrate</i>	_____	<i>I can concentrate</i>
<i>if someone in class is upset</i>	_____	<i>if someone in class is upset</i>
<i>we all feel upset</i>		<i>we don't all feel upset</i>
<i>I'm quick at doing things</i>	_____	<i>I'm slow at doing things</i>
<i>my teachers understand me</i>	_____	<i>my teachers don't understand me</i>
<i>I'm good at saying</i>	_____	<i>I'm bad at saying</i>
<i>what I mean</i>		<i>what I mean</i>
<i>people like being with me</i>	_____	<i>people don't like being with me</i>
<i>I'm not as clever as</i>	_____	<i>I'm cleverer than</i>
<i>my teacher thinks I am</i>		<i>my teacher thinks I am</i>
<i>My parents don't like me</i>	_____	<i>my parents like me</i>
<i>I get excited a lot</i>	_____	<i>I stay calm</i>
<i>I like people in my class</i>	_____	<i>I don't like people in my class</i>
<i>I think clearly</i>	_____	<i>I get mixed up when I think</i>
<i>I'm nice</i>	_____	<i>I'm nasty</i>
<i>I break a lot of things</i>	_____	<i>I don't break things</i>
<i>(for example when I'm washing up)</i>		
<i>people want me around</i>	_____	<i>nobody wants me around</i>
<i>I get upset at home or school</i>	_____	<i>things don't bother me</i>
<i>I know a lot about things</i>	_____	<i>I don't know a lot about things</i>

I don't know how to behave
 with people
 I like to be alone
 I can be trusted
 other people decide what I do
 I'm a trouble to my family
 I'm good at sports
 I'm good at school work
 my teachers like me
 people are frightened of me
 I'm always falling over things
 I am different to my group
 I try hard
 I'm nasty to live with
 looking after me is hard work
 people in my class like
 each other
 this school is great
 I like to be me

I know how to behave
 with people
 I like to join in with others
 I can't be trusted
 I decide what I do
 I'm a help to my family
 I'm bad at sports
 I'm bad at school work
 my teachers don't like me
 people aren't frightened of me
 I never fall over things
 I am the same as my group
 I give up easily
 I'm nice to live with
 looking after me is no bother
 people in my class don't like
 each other
 this school is terrible
 I wish I was someone else

Score sheet for the Ches Pictorial Language Comprehension Test

1. elephant

2. playground

3. plug

4. rhubarb

5. aeroplane

6. eyebrow

7. elbow

8. sun

9. church

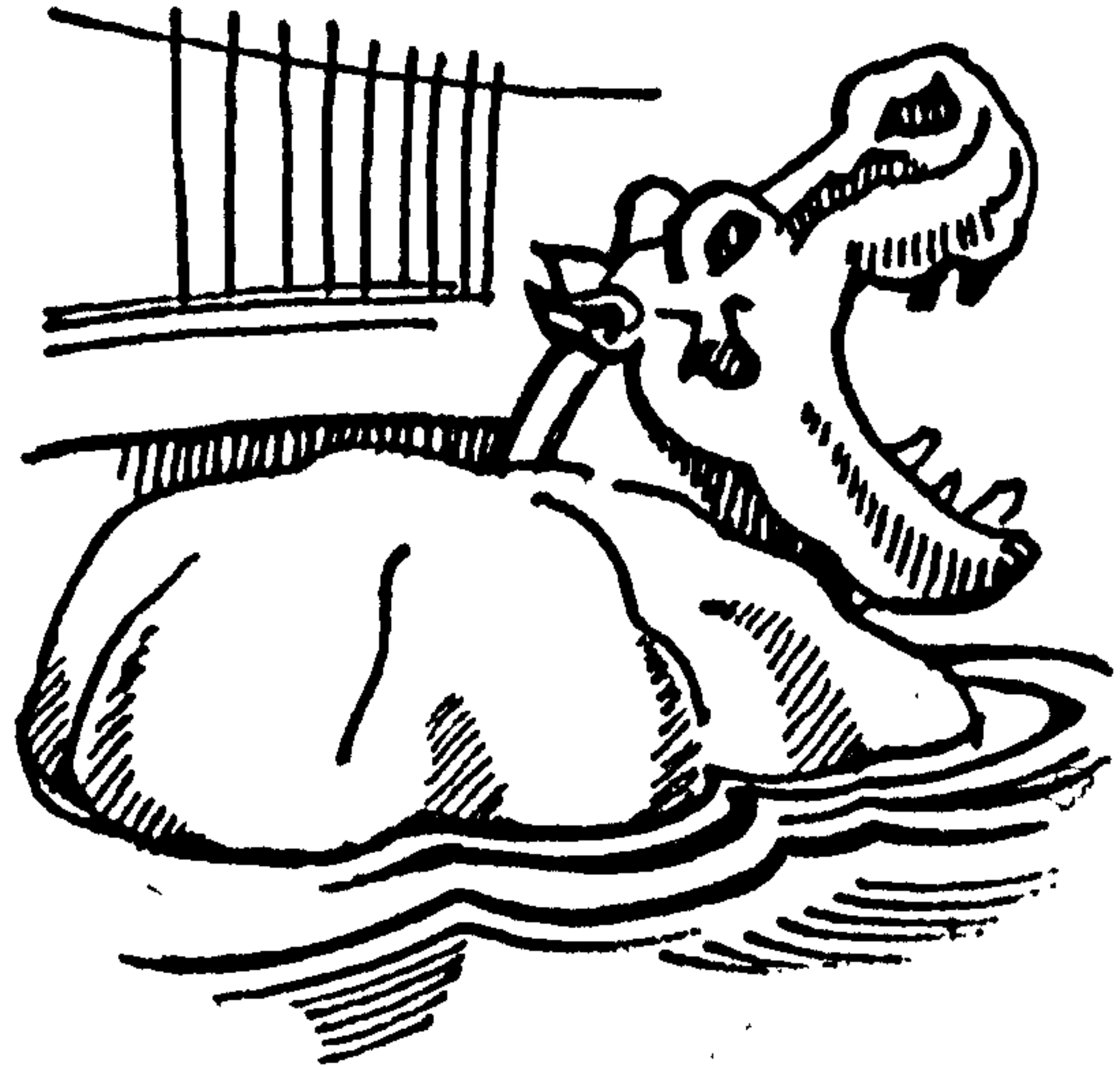
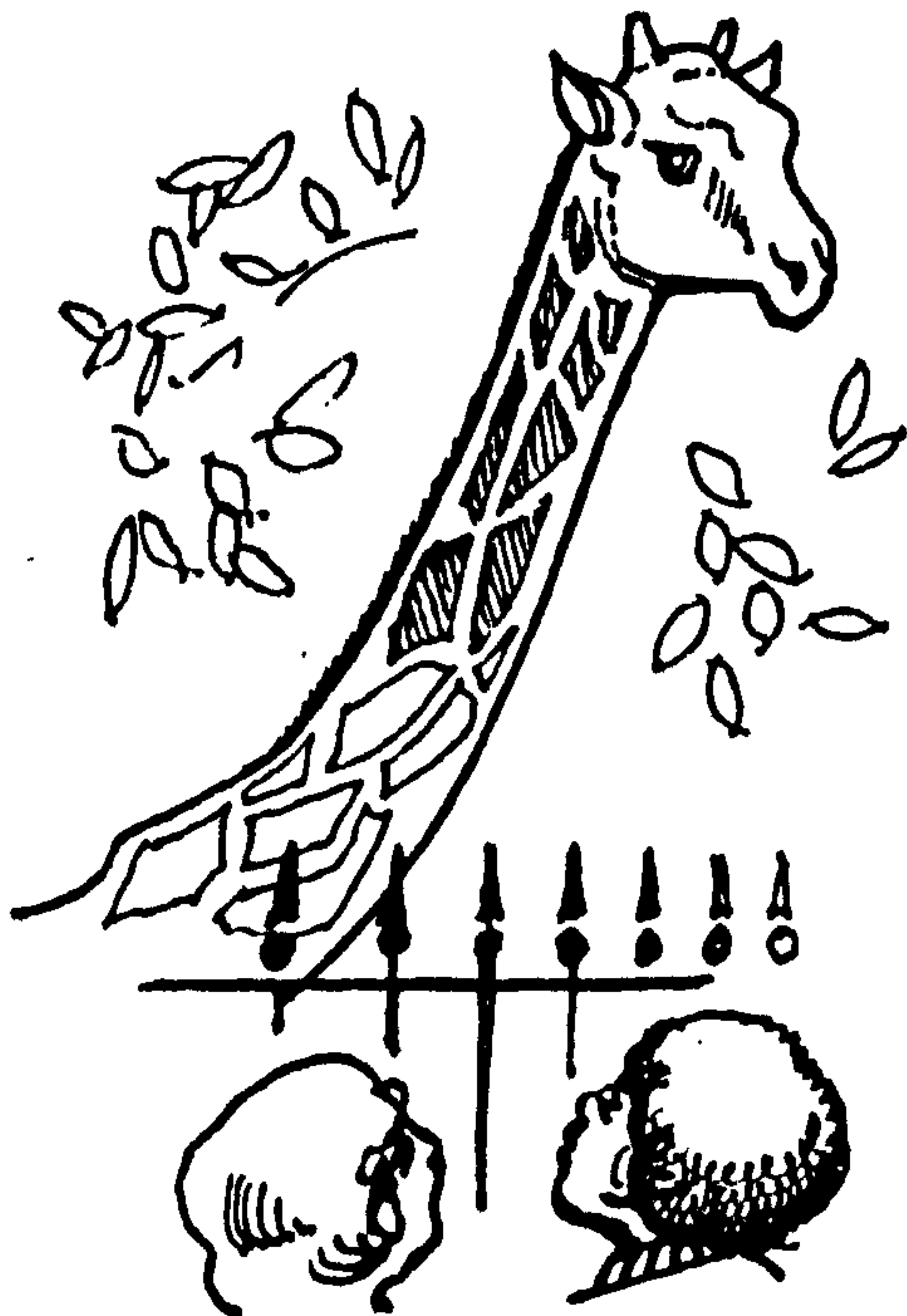
10. projector

11. fossil

12. diver

13. wardrobe

14. hyena



14

27. reptile

28. toboggan

41. detritus

42. apex

⓪ ②
③ ①

⓪ ②
① ④

⓪ ②
③ ④

⓪ ①
③ ④

⓪ ②
③ ④

⓪ ②
③ ①

TOTAL ZEROS _____

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MAKE NO MARKS OR SMUDGES NEAR THESE LINES

WORD DEFINITIONS

The words used in this scale appear on the following answer form.

LET'S SEE HOW MANY WORDS YOU KNOW. I SHALL SAY A WORD AND I WANT YOU TO TELL ME WHAT IT MEANS.

In turn, read out each word on the list.

“ ” WHAT DOES MEAN?

Please write the child's answer or answers verbatim on the following three pages. It is important that everything the child says should be recorded (whether correct or otherwise).

- a. If the child merely repeats the indicated word when trying to define it, this is incorrect and the child should be asked, without giving any further clues: TELL ME MORE *or* WHAT DO YOU MEAN BY?
- b. If the response is ambiguous or on the right lines but not fully correct, use non-directional questioning such as: YES? or TELL ME A BIT MORE or CAN YOU THINK OF ANYTHING ELSE?
- c. All responses, correct or incorrect, should be greeted with mild encouragement, such as YES or GOOD!
- d. If the child's response on the *first* item is incorrect, the incorrect response(s) should be written down and the child should then be told what would be the correct responses. (Correct responses: any games such as football, racing or similar diversions. Incorrect responses: School sports, snakes and ladders.)

Note: This help is given only with the first item and *not* with any subsequent items.

Use your judgment to decide when the child has failed to give correct or partly correct definitions of *four successive* words. If you are sure that there have been four successive incorrect definitions, move on to the next scale (recall of digits).

- 1. Sport
- 2. Travel
- 41. Alacrity
- 42. Hirsute

SCHOOL LEAVERS STUDY-AVON

PUPIL QUESTIONNAIRE

APPENDIX 5.6

Excerpt from Avon School
Leavers' Questionnaire

	Always	Often	Sometimes	Never	
22. I am interesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 42 <input type="checkbox"/>
23. I worry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 43 <input type="checkbox"/>
24. I hate fighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 44 <input type="checkbox"/>
25. I am calm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 45 <input type="checkbox"/>
26. I can concentrate on things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 46 <input type="checkbox"/>
27. People dislike me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 47 <input type="checkbox"/>
28. I am a good person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 48 <input type="checkbox"/>
29. I feel bad about things I have done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 49 <input type="checkbox"/>
30. I am different from other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 50 <input type="checkbox"/>
31. I am friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 51 <input type="checkbox"/>
32. I think bad thoughts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 52 <input type="checkbox"/>
33. I like the way I am	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 53 <input type="checkbox"/>
34. I feel I am an important person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 54 <input type="checkbox"/>
35. People can depend on me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 55 <input type="checkbox"/>
36. I feel unsure of myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 56 <input type="checkbox"/>
37. I like winning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 57 <input type="checkbox"/>
38. I like helping other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 58 <input type="checkbox"/>
39. I am moody	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 59 <input type="checkbox"/>
40. I think life is hard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 60 <input type="checkbox"/>
41. I have a poor memory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 61 <input type="checkbox"/>
42. I wish I was someone else	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COL 62 <input type="checkbox"/>

5.7a One factor ANOVA with a repeated measure examined whether subjects' self-images differed between personal and pupil conditions. An example summary table is given below.

ANOVA summary table for item 25 "if someone in class is upset we (don't)/ all feel upset," showing a significant effect for identification.

Source

SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROBABILITY
168.03333	1	168.03333	48.54	0.0000
48.46667	14	3.46190		
2.70000	1	2.70000	4.85	0.0450
7.30000	14	0.55714		

5.7b One factor completely randomised ANOVA
was used in a manner like that described in Appendix 2.4a to assess differences in ability between pupil and personal conditions.

5.7c Spearman's rho
was calculated as a measure of association between self concept of ability and ability scores. This test makes no assumption regarding the nature of each distribution, except that at least ordinal measurement has been achieved, which was most appropriate because the self concept of ability score was simply the sum of scores on items selected because they concerned ability, the extent to which each loaded on the dimension being unknown. (Although, if loadings varied widely it is possible that even this assumption was not met). Rho is simply derived from the differences in rank between an individual's scores on each variable, and the distribution of critical values is consulted to assess its probability (Siegel, 1956). In the present case, however, calculations and assessment of probability were conveniently performed using BMDP3S.

5.7d Factor analysis
was used to see if the structure of self-images differed between pupil and personal conditions.

