# 1 The Effects of Socio-economic Status on Children's Language Acquisition and Use

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## INTRODUCTION

### OUTLINE OF CHAPTER

In the first part of this chapter, social disadvantage is defined in terms of socio-economic status (SES). Evidence that children from low-SES backgrounds are more likely to experience language delay than children from high-SES backgrounds will be presented. Environmental explanations, suggesting that children from high- and low-SES backgrounds experience different kinds of language environment, which influence both the rate of language acquisition and language competence on starting school, will be discussed. The second part of the chapter considers the extent to which the differences that have been found represent deficits. Given the importance of oracy and literacy in education, and the links between them, it is clear that children from low-SES backgrounds are more likely to be disadvantaged academically than those from high-SES backgrounds, thus renewing the cycle of social disadvantage.

### DEFINITIONS OF SOCIAL DISADVANTAGE

Social disadvantage is defined in a number of ways. Research into the association between social disadvantage and developmental outcomes frequently measures SES in terms of level of parental education (usually maternal), or occupation (usually parental) (e.g. Bee, Van Egeren, Streissguth, Nyman & Leckie, 1969; Bernstein, 1962a, 1962b; Hart & Risley, 1995; Tizard & Hughes, 1984; Tough, 1977). Alternatively, social disadvantage is represented by economic deprivation: for example, low family income (Adams & Ramey, 1980), poverty (e.g. Brooks-Gunn, Klebanov, &

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Duncan, 1996; Patterson, Kupersmidt & Vaden, 1990), or income-to-needs ratio (Raviv, Kessenich & Morrison, 2004). Defining social disadvantage in different ways is problematic. Correlations found between parental education and occupation, and measures of income, are not high; the duration and timing of poverty varies from one family to another, and has different effects on developmental outcomes; even if the family itself is not economically-deprived, living in a poor neighbourhood can affect development (Duncan, Brooks-Gunn & Klebanov, 1994). In recent years, researchers have attempted to distinguish between poverty status and SES (see McLoyd, 1998, for a review). In this chapter, however, I define social disadvantage, generally, as 'low SES'.

## EVIDENCE FOR DIFFERENCES IN THE LANGUAGE COMPETENCE

There has long been concern that children from low-SES backgrounds underachieve academically in comparison with more privileged children. Academic underachievement has often been attributed to language skills inadequate for accessing the curriculum. Early evidence for differences in the language competence of children from high- and low-SES backgrounds was proposed in the UK by Bernstein (e.g. 1958, 1962a, 1962b, 1973), Tough (1977, 2000) and Tizard and Hughes (1984); in the USA (where low SES is often associated with minority ethnic background), similar evidence was put forward by Bereiter and Engelmann (1966), Stewart (1970), Baratz (1970) and Labov (1969). More recently, the results of a large-scale longitudinal, observational study of the development of spoken language in young children from high-, mid- and low-SES backgrounds (Hart & Risley, 1995, 1999; Walker, Greenwood, Hart & Carta, 1994) suggest that children in lower-SES environments have slower rates of vocabulary growth associated with lower IQ when they are three years old, and poorer educational achievement when they are nine or ten. Similar studies have confirmed these findings (Arriaga, Fenson, Cronan & Pethick, 1998; Fish & Pinkerman, 2003; Hoff, 2003). Peers, Lloyd, and Foster (2000) carried out a survey of children's language skills as part of the standardization process for the Clinical Evaluation of Language Fundamentals Preschool (CELF-Preschool$^{UK}$). This suggested that UK children from low-SES backgrounds are almost twice as likely to experience receptive language delay than children from mid- and high-SES backgrounds; moderate or severe expressive language delay is more than five times as likely in children from low-SES backgrounds.

In this chapter, I will be focusing on environmental explanations for the differences in language competence and use that have been observed in children from different backgrounds. I will attempt to consider in turn – given the high correlations between these factors – the effects of low SES, generally, on cognitive and language development; the level of parental education; home environment; the relationship between principal caregiver and child; the nature of the interaction between mother and child, including the quantity of speech addressed to the child and the nature of the child-directed speech, and the language environment experienced by the child, more generally.

## ENVIRONMENTAL EXPLANATIONS FOR DIFFERENCES IN LANGUAGE COMPETENCE

### THE EFFECTS OF POVERTY ON COGNITIVE AND LANGUAGE DEVELOPMENT

Poverty affects children psychologically (see Bradley & Corwyn, 2002, for a review). It can also affect them psychosocially and physically (Brooks-Gunn, et al., 1996; Evans, 2004). For example, family income is a better predictor of non-verbal and verbal IQ measured at five years of age than ethnicity, maternal education and single motherhood (Duncan et al., 1994). In terms of the physical effects of poverty, poor health – particularly in the perinatal period for infants who were born prematurely (Siegel, 1982) – and nutrition (Smith, Brooks-Gunn, & Klebanov, 1997) can give rise to physiological or neurological deficits, as can exposure to environmental pollutants (Klebanov, Brooks-Gunn, McCarton & McCormick, 1998; McLoyd, 1998; Needleman, Schell, Bellinger, Leviton & Allred, 1990).

### LEVEL OF MATERNAL EDUCATION

Even though, as we have seen, family income has been shown to be a more effective predictor of developmental outcomes than maternal education, it has been argued that it is worth studying the relationship between maternal education and cognitive development simply because it is a more stable measure than family poverty (Duncan et al., 1994; Huston, McLoyd & Garcia Coll, 1994). It is usually correlated with paternal education (Entwisle & Astone, 1994) and many low-income families are headed by single parents, usually the mother (Hernandez, 1997). Adams and Ramey (1980), for example, undertook a longitudinal study of low-SES infants at risk of 'mild mental retardation'. The higher the level of risk, the lower the level of maternal education and IQ.

Why should this be? Belsky (1984) and Wells (1986) take an ecological approach, suggesting that parenting is influenced by parents' own personality and developmental history as well as the child's temperament. Such an emphasis on the wider social context of the family is supported by Parks and Smeriglio (1986), who link parental education to knowledge about parenting, child development and the level of stimulation provided in the home, where such factors influence children's cognitive development. While some aspects of language development, such as the appropriate use of tense, seem to be acquired irrespective of level of maternal education (Rice, Wexler & Hershberger, 1998), others have been shown to be related to maternal education. Dollaghan, Campbell, Paradise et al. (1999) studied interactions between mothers and their infants. The mothers were categorised as black or white, with one of four levels of education, from college graduates to those who had not graduated from high school. The researchers found significant correlations between level of maternal education and 3-year-old children's receptive and productive language. Measures of productive language included mean length of utterance in morphemes

(MLUm) (Walker et al., 1994), number of different words and total number of words. Analysis showed that there were significant differences between the three groups on all the measures, such that the children of college graduates had higher scores than both the other groups, and for receptive language, the children of high-school graduates had higher scores than the children whose mothers had not graduated from high school.

Finally, in a recent investigation of risk factors underlying speech delay in 3-year-old children, Campbell, Dollaghan, Rockette, et al. (2003) calculated the odds ratios for seven variables thought to be linked to speech delay. The highest risk factors were the mother not having completed high school and the child being male; odds ratios were high, too, for a family history of developmental communication disorder and Medicaid health insurance (representing low SES, but highly correlated with low level of maternal education).

## HOME ENVIRONMENT

As we have seen, the home environment is very important for developmental outcomes (Belsky, 1984; Bradley & Caldwell, 1984; Brooks-Gunn et al., 1996; Snow, Barnes, Chandler, Goodman & Hemphill, 1991). However, the kind of home environment experienced by children is not necessarily affected by SES. Olson, Bates and Kaskie (1992) measured interactions between mothers from different SES backgrounds and their children, when the children were 6, 13, and 24 months old, and then followed them up when they were 6 years old. The results suggest that – over and above the effects of SES – differences in language competence at the age of 6 years were attributable to two aspects of mother–child interaction at the age of 2 years: the mother's non-restrictiveness of the child, and the amount of verbal stimulation she provided.

On the other hand, a potential link between SES, home environment and language is illustrated in a study carried out by Lawrence and Shipley (1996), who examined black working- and middle-class, and white working- and middle-class parents' use of language with their 3–5-year-old children. Differences between the language used by parents in the four groups were discovered. Given that the black parents differed from the white parents in the same way that working-class parents differed from middle-class parents, the researchers postulate a single underlying factor: 'distance from mainstream culture' (Labov & Harris, 1986).

## NATURE OF INTERACTION BETWEEN MOTHER AND CHILD

'Interactional style' was identified long ago as a predictor of children's cognitive development (Bee et al., 1969; Hess & Shipman, 1967). Interactional style comprises factors such as attachment, the child's temperament and quality of interaction (Fish & Pinkerman, 2003; Murray & Hornbaker, 1997); it can predict childhood language skills (Bee, Barnard, Eyres et al., 1982). Other features of interaction that are considered to facilitate language acquisition include joint attention

(Harris, Jones, Brookes & Grant, 1986; Tomasello & Todd, 1983) and mothers' verbal responsiveness to early infant vocalisations (Tamis-LeMonda, Bornstein, Baumwell & Damast, 1996).

Given that features of mother–child interaction can differ, does this have implications for the interaction of mothers and children from high- and low-SES backgrounds? Low-SES mothers may have less time or energy for playing or engaging in conversation with their children (Farran & Haskins, 1980; Snow, Dubber & de Blauw, 1982), display more restrictive and authoritarian parenting (Hashima & Amato, 1994) and talk less to their children, using a more directive than facilitative manner (Hoff, 2003).

There is thus much evidence to show that the nature of mother–child interaction plays a part in language development. However, the crucial aspects of mother–child interaction have yet to be identified. While in some cases interactional differences have been attributed to SES, other studies have shown that effective mother–child interaction can enhance the language skills of low-SES children. We turn now to examine children's language environments more closely in an attempt to explain differences in the language competence and use of children from high- and low-SES backgrounds, starting with evidence that the sheer quantity of speech addressed to children has a vital role to play (Huttenlocher, Haight, Bryk, Seltzer & Lyons, 1991).

## QUANTITY OF CHILD-DIRECTED SPEECH

Hoff and Naigles (2002), in their review of the literature pertaining to children's lexical development, point out that there are two views of language input. The social-pragmatic view focuses on the interaction between caregiver and child. The alternative view, put forward by Hoff and Naigles, is 'that language acquisition is a data-crunching process and conversation is a delivery mechanism whose value lies, to a substantial degree, in the nature of the data that it delivers' (p. 422). Hoff and Naigles cite Schwartz and Terrell (1983) and Smith (1999), who showed empirically that words are learned faster by children the more often they are heard. Thus, the words that children produce first when they begin to speak are likely to be those that their parents say most often (Naigles & Hoff-Ginsberg, 1998). Bornstein, Haynes and Painter (1998) showed that the size of children's comprehension and production vocabularies was related to the number of word types used by their mothers when talking to them as well as their MLU. Vocabulary size is not the only measure of language competence, of course: Hoff-Ginsberg (1997; 1998) investigated the effects of birth order as well as SES on the development of syntactic skills and argued that firstborns develop the ability to understand and use syntax faster than do their younger siblings because more speech is addressed to them.

Meanwhile, the findings of Hart and Risley (1992, 1995, 1999), who carried out a longitudinal, naturalistic, observational study of 42 children and their families, illustrate SES-related differences in the quantity of language to which young children are exposed, and their potential long-term consequences. Thirteen families were defined as 'professional/managerial'; 23 were defined as working class (equivalent to 'blue-collar workers' in the UK), and six were living on welfare benefits

(equivalent, arguably, to 'working-class' in the UK). Each family was visited once a month, from when the child was 8 months old until their third birthday, and everything that was said to the child, by the child or around the child, for an hour, was documented. At the end of the study each child's vocabulary growth rate, use of vocabulary and IQ were measured. When the children were 9–10 years old, a follow-up study was carried out, involving 29 of the 42 children.

The most striking differences in the language experiences of children in the three types of family related to utterances – measured as the average numbers of words per hour – that were addressed to them. A total of 600 words per hour were addressed to children in the welfare families, 1200 in the working-class families and 2100 in the professional families. In terms of time spent interacting with their children, adults in the professional families spent twice as long as the adults in the welfare families. However, there were differences in the nature of the language used, too. The average numbers of adult utterances per hour representing affirmative feedback and prohibitions to their children were calculated for each group. In professional families affirmative feedback was offered more than 30 times. In working-class families, affirmative feedback was offered 15 times. However, in welfare families, affirmative feedback was offered only six times per hour, and children were twice as likely to hear a prohibition.

As might be expected, the children's vocabulary growth rate and use were reflected by the amount of language they had experienced; so were their IQ scores. There were also significant positive correlations between their test performance on the vocabulary measures at the age of 3 years and at the age of 9–10. Hart and Risley conclude that 'the most important difference among families was not the relative advantages conferred by education and income but the amount of talking the parents did with their children' (1999, p. 181).

## NATURE OF CHILD-DIRECTED SPEECH AND THE LANGUAGE ENVIRONMENT MORE GENERALLY

Although quantity of child-directed speech is crucial, then, Hart and Risley's study illustrates the importance, too, of the nature of child-directed speech, and the language environment more generally. At the beginning of this chapter, Bernstein's evidence for differences attributed to SES was cited. In order to examine this in more detail, we need to take a step back, as it were, from young children's language acquisition and development, and look at the theory underlying so much subsequent research, before returning to specific aspects of child-directed speech and how these may influence language outcomes.

Basil Bernstein (1924–2000) was the British sociologist who put forward the verbal deprivation hypothesis – one of the most influential and controversial explanations for educational underachievement. This hypothesis arises from the theory of socio-linguistic codes, whereby it is argued that language can be used in different ways in different social contexts. These different ways of using language are known as codes, or sets of principles that underlie shared systems of meaning. Thus,

language is used not only to communicate information but also to establish position in social relationships – within the family, at school, at work – and, more broadly, within the class structure of our society. Elaborated codes are relatively context-free; they enable language users to call on universalistic meanings, to be reflexive, and thus to manipulate ideas. Restricted codes, meanwhile, limit language users to their immediate, specific, context.

Bernstein and his colleagues carried out empirical research from the late 1950s into the 1970s, the findings of which support his argument that the middle classes use elaborated codes, while the working classes are more likely to use restricted codes (Bernstein, 1996). For example, in one early study Bernstein (1958) found that a group of working-class youths aged 15–18 gained higher scores on non-verbal than verbal IQ tests. In a follow-up study (Bernstein, 1960), a group of middle-class youths, also aged 15–18, scored equally well on the same tests, while a second sample of working-class youths, like the group from the earlier study, also scored higher on the non-verbal than the verbal IQ tests. A third study (Bernstein, 1962a, 1962b) compared the spontaneous use of language in the context of small-group discussions held by working-class and middle-class youths. The former was described as 'restricted': in comparison with middle-class youths, the working-class youths used shorter words, longer phrases and were less likely to pause when speaking; they also used more personal pronouns. The language used by the middle-class group was described as 'elaborated' . The youths used longer words, shorter phrases and paused more often. They also used more 'uncommon' adverbs and adjectives, subordinate clauses and passive verbs.

Subsequent research confirms that mothers from low-SES backgrounds use more directive speech and prohibitions than do mothers from high-SES backgrounds (Bee et al., 1969; Hart & Risley, 1992; Hoff, 2003; Lawrence & Shipley, 1996). Although directive speech, in the form of imperatives, has been associated with poorer outcomes (e.g. Adams & Ramey, 1980; Hart & Risley, 1995, 1999), this is not to say that directive speech is necessarily less helpful than facilitative speech to language development (Murray & Hornbaker, 1997); Barnes, Gutfreund, Satterly and Wells (1983), for example, argue that it is useful where it contributes to reciprocal interaction.

In contrast to research on parents' child-directed speech, the British educational psychologist Joan Tough carried out a longitudinal study to investigate the nature of the language used by 12 'disadvantaged' children, whose parents had left school at the minimum age and were in unskilled or semi-skilled employment, and 12 'advantaged' children, with highly-educated parents in 'professional' careers (Tough, 1977). Observations and recordings were made of each child talking on three occasions when they were 3½, 5½ and 7½ years old.

According to Tough's analysis of the transcripts of the children's talk, at the age of 3 years, the disadvantaged children were less likely than the advantaged children to: talk or reason about their experiences, past or present; talk or speculate about future events, and to make plans for themselves or other people; recognise or solve problems; project themselves into other people's thoughts and feelings; or

engage in imaginative 'pretend' play. Two years and four years later, the children were observed engaging in activities designed to encourage them to use talk for the purposes identified in the first part of the study. However, once again Tough found differences between the advantaged and disadvantaged children. The latter produced shorter answers to questions and Tough inferred from their talk that their thinking was 'less complex'; they did what was required of them, and no more (Tough, 1977, pp. 169–70). In Tough's view, academic underachievement can be explained in terms of verbal deprivation causing social and cognitive disadvantage. Shortly before she died, she summarised her findings from this, and subsequent research, thus: 'What is clear is that the character of talk used persistently in particular kinds of situation will play a part in how, and for what purposes children learn to use language, and in the development of attitudes and thinking skills. It is the way in which parents and others draw young children into their ways of thinking that determines the kind of skills, concepts and attitudes children will have established by the age of three and which may continue to affect them throughout their lives' (Tough, 2000).

Meanwhile Tizard and Hughes (1984) compared the conversations of 30 four-year-old girls, half from working-class and half from middle-class families, with their mothers. Middle-class mothers and children discussed a wider range of topics, used complex language more often than working-class mothers and children, and used a wider vocabulary. Furthermore, middle-class children asked more questions than working-class children, and their mothers answered more questions adequately than working-class mothers, who were more likely to ignore their children's questions. While Tizard and Hughes's findings supported those of Tough (1977), they disagreed with her conclusions; as we shall see, their focus was on individual differences, and the differences between the interactions of the two groups of girls at nursery school.

The effects of class on conversations between mothers and children aged between 1½ and 2½ years, but at similar levels of language development, were investigated by Hoff-Ginsberg (1991). Once again, the focus was on adults' language. Video-recordings of interactions between 30 working-class and 33 upper-middle-class dyads in four different contexts were analysed. Mothers were interviewed to assess their attitudes towards and beliefs about their children, and to assess mothers' adult-directed speech. Measures were taken of maternal speech rate, total number of word roots used, MLUm, directive speech, conversation-eliciting utterances and topic-continuing responses. In support of earlier findings (e.g. Bee et al., 1969), upper-middle-class mothers' speech was more contingent on their children's, and less directive; as we have already seen, this was found to be related to general conversational style rather than attitudes towards children as conversational partners or beliefs regarding children's language abilities. Differences were found between the language used in different contexts but there were no other significant differences between the two social groups on any of the other measures.

The work of Lawrence and Shipley (1996) has been mentioned, briefly, in the context of class- and race-related differences in the home environment. The principal

findings of their research were that black mothers and working-class mothers talk less to their children than do white mothers and middle-class mothers. Significant main effects of class and race, and a significant interaction between class and setting were identified.

We now return to the relationship between adults' language use and outcomes for children. Bornstein et al. (1998) investigated the determinants of vocabulary competence in children aged about 20 months and found that children's vocabulary competence is directly related to their social competence and their mothers' vocabulary and attitudes towards parenting. As we have seen, it is indirectly predicted by maternal vocabulary, which is in turn predicted by SES, verbal intelligence and knowledge of child development. Thus, mothers from higher-SES backgrounds with high levels of intelligence, who knew more about child development, were more likely to make longer utterances to their children, using a wider vocabulary.

In addition to vocabulary, the development of syntax as a measure of language competence should also be discussed. Analysis of syntax in the conversation of young children from mid- and low-SES backgrounds shows that children's syntax development is influenced by parental input but SES does not specifically predict the frequency of complex speech independently of parental input and teacher input (Huttenlocher, Vasilyeva, Cymerman & Levine, 2002).

We have seen, then, that language environment associated with SES has been put forward as an explanation for differences in adults' and therefore children's understanding and use of language; we have also explored the nature of those differences. We must now discuss the extent to which they are considered to represent deficits requiring intervention.

## DIFFERENCE OR DEFICIT?

### NO DIFFERENCE: A METHODOLOGICAL PROBLEM

It is sometimes argued that differences between the language competence of children from low- and high-SES backgrounds are exaggerated. If the standardisation of norm-referenced language measures is not carried out using genuinely representative samples of the population, rather than just the children of well-educated, middle-class parents, the performance of children from low-SES and/or ethnic minority backgrounds is likely to appear lower than it really is (Dollaghan et al., 1999). Findings based on parental reports, such as the Communication Development Inventory (CDI), are also likely to be affected (Arriaga et al., 1998). Cultural bias in tests, and even in the variables that are coded in observational research, is perceived as a problem (Campbell, Dollaghan, Needleman & Janosky, 1997).

### NO DIFFERENCE: INDIVIDUAL VARIATION

Research focusing on differences between groups sometimes fails to recognise the similarities between them. Although Tizard and Hughes (1984) found differences

between working-class and middle-class children's use of language, as we have seen, they argue that these differences are small; there was considerable variation within the groups and overlap between them. Important similarities between the groups included the frequency of conversations held between mothers and children, the length of conversations, the number of words uttered in each 'turn' and the amount of time mothers and children spent playing together.

Language development is also affected by children's sex, intelligence and personality, as well as their upbringing and relationship with their parents. Individual variation may explain many differences. An early proponent of this view, Wells (1986) directed a longitudinal study of 128 UK children aged 1–10 years, which involved recording and analysing samples of their interactions with parents, peers and teachers as well as taking more formal measures of children's talk. The results of the study in relation to social background showed no differences in how often, or in what contexts children talked, or the pragmatic functions of their speech. Wells did observe certain differences between the groups in the number of auxiliary verbs used by children by the age of 3½ years, MLU and oral comprehension, but he minimises these: again, the differences are small; performance, rather than competence, was being measured; MLU may be affected by use of dialect; some children may have scored worse on the oral comprehension scale as a result of being in a test situation.

Since the mid-1980s, however, a large number of studies has been carried out to explore the effects of multiple factors; in this chapter alone we have considered research of this nature by Parks and Smeriglio (1986), Hart and Risley (1992, 1995, 1999); Walker et al. (1994), Duncan et al. (1994), Brooks-Gunn et al. (1996), Bornstein et al. (1998); Dollaghan et al. (1999), Campbell et al. (2003), Fish and Pinkerman (2003), and Raviv et al. (2004).

## DIFFERENCE BUT NOT DEFICIT

The verbal deprivation hypothesis was put forward by Bernstein in response to concern in the UK that many children from working-class backgrounds were not achieving their full educational potential. This concern was echoed in the USA in President L. B. Johnson's 'War Against Poverty', which sought to redress the linguistic and cultural deprivation from which poor, and particularly black, children were thought to suffer. Initiatives such as Project Head Start – the forerunner of Sure Start in the UK – were the result.

The research outlined in this chapter focuses on the identification of factors that influence the development of language and cognition. Some of these factors have been shown to differ in families from different social backgrounds; children from different social backgrounds have different levels of language competence, which may in turn affect their subsequent academic progress. Given these findings, it is easy to assume that children from low-SES backgrounds are exposed to inadequate language environments and are therefore deficient in their language acquisition and use – particularly when, for example, distinctions are made between the use of 'simple' and 'complex' language (Huttenlocher et al., 2002; Tough, 1977).

The American sociologist, William Labov, was one of the first researchers to be highly critical of this assumption. He argues that the language of the black urban ghetto children whom he observed inside and outside the classroom is highly skilled, imaginative and communicative, when they speak to each other. These characteristics are much less in evidence, however, when they speak to adults. If their poor academic achievement is to be ascribed to their use of language, it must result from the asymmetry of interactions between children and adults, whether teachers or researchers (Labov, 1969/1979). Tizard and Hughes also reject the notion of 'working-class language deficit' (Tizard & Hughes, 1984, p. 159), and suggest, rather, that their findings reveal 'a difference in language *style*, related to a difference in [mothers'] underlying values and attitudes . . . [that] obviously make sense in terms of the different educational and occupational careers of the two groups of women' (p. 159). Meanwhile, contemporary researchers in the USA are unhappy with the interpretation of the findings of many studies that appear to reinforce the notion that privileged children's language is the norm and that of low-SES/ethnic minority children is inadequate in comparison (Garcia Coll, Lamberty, Jenkins et al., 1996); worse, that this is so because of deficiences in their environment or genetic inheritance (Herrnstein & Murray, 1996; Jensen, 1969).

Labov argues that children use different registers at home and school. Similarly, conversational settings at home or at school can also influence the language used by adults and children, attenuating the effects attributed to SES. Thus, middle-class mothers are perceived as interacting with their children in more 'working-class' ways when they are helping them manipulate toys (Brophy, 1970) or trying to control their non-verbal behaviour (Wooton, 1974); working-class mothers interact with their children in more 'middle-class' ways when they are reading books together (Dunn, Wooding & Herman, 1977; Snow, Arlman-Rupp, Hassing et al., 1976). More recently, Hoff-Ginsberg studied working-class and upper-middle-class mother–child interactions in different communicative settings: at mealtime, while dressing, reading books and playing with toys. In the four settings, 'reading stood out as the most different . . . mothers' child-directed speech had the greatest lexical diversity, the greatest syntactic complexity, and the highest rate of topic-continuing replies. [It] was also among the two highest settings in terms of the overall rate of maternal speech. These findings support the widespread notion that book reading is particularly conducive to a supportive style of mother–child conversation' (Hoff-Ginsberg, 1991, p. 792). While book reading is clearly an effective context in which parents can talk with their young children, another implication of these findings – as Hoff-Ginsberg observes – is that it may be unwise to draw general conclusions from studies of adult–child interactions in this setting.

## DEFICIT: IMPLICATIONS OF DIFFERENCE FOR EDUCATION

We have considered the possibility that differences in children's language competence, occurring for whatever reason, are simply a matter of register, or style. As we

have seen, however (Hart & Risley, 1995, 1999), they have implications for educational achievement, and these in turn have implications for the kinds of intervention that are devised and implemented (see Part II of this volume).

To return to the verbal deprivation hypothesis, Bernstein himself was at pains to make it clear that he did not see children themselves as deficient. Language codes, he argues, reflect the division of labour, and therefore the balance of power, in society: context-dependent, restricted codes are needed for the production of goods, while elaborated codes are used for the reproduction of ideas. Ideas are communicated principally through education, which is controlled by the middle classes; they determine the purposes of education and the curriculum. The values of our education system are such that children are required to use elaborated codes in order to achieve academic success.

This is illustrated in Tizard and Hughes's (1984) comparison of children's language at home and at nursery school. While they underplay the differences they observed between working- and middle-class interactions at home, they report striking disparities at school. These arise, they suggest, from school routines, and the need for children to conform to rules, whether implicit or explicit. Interactions between members of staff and groups of children are quite different from the one-to-one interactions of a mother and child; they often involve a teacher asking questions and the child answering – briefly – so the next child can be questioned. Above all, interactions at nursery school are decontextualised; staff relationships with children are professional, rather than emotional, and it is likely that when children do have the opportunity to talk about the things that interest them, nursery staff do not possess the relevant knowledge to encourage them appropriately. Tizard and Hughes found that the working-class children in their sample were particularly affected by the nursery school setting; they were more subdued, passive and more dependent than at home. The staff, in turn, were more likely to pitch their talk at a 'lower' level to the working-class children, suggesting that they had lesser expectations and standards for this group of children. In other words, they were *socially* – and potentially academically – disadvantaged as the result of perceived differences in their behaviour, including language competence.

More recently, Wood (1998) discusses (and dismisses) this 'self-fulfilling prophecy' (Rosenthal & Jacobson, 1968). He considers the possibility that some children underachieve at school because of a clash between their family values and those of school, but points out that this is difficult to address without asking more basic questions, such as 'what is education for?'. Finally, he suggests that 'language and cognition are fused in verbal reasoning. Comprehension problems . . . act as a barrier to learning and understanding. Lacking expertise in the processes of creating coherent, "disembedded" or "decontextualized" accounts of what they know and understand, children may appear intellectually incompetent when, in reality, they are still grappling with the problem of making sense to other people' (Wood, 1998, p. 180).

Children's use of spoken language, then, may influence the way they are taught at school, and the way they learn. However, it is also crucial to the development

of literacy (Shankweiler, Lundquist, Dreyer & Dickinson, 1996; Snow, Burns & Griffin, 1998). Phonological awareness is predicted by spoken language measures (Cooper, Roth, Speece & Schatschneider, 2002); phonological (Bryant, MacLean & Bradley, 1990) and metalinguistic awareness (Chaney, 1992, 1994, 2000; Griffin, Hemphill & Camp, 2004), and narrative ability (Roth, Speece, Cooper & De La Paz, 1996) have all been linked to successful early reading, as have vocabulary (Dickinson, McCabe, Anastasopoulos, Peisner-Feinberg & Poe, 2003), semantic knowledge and metasemantic skills (Roth, Speece & Cooper, 2002).

The NICHD Early Child Care Research Network (2005) reports the most recent findings from a longitudinal study of reading development involving more than a thousand children. The aim was to determine the roles played by comprehensive oral ability and phonological awareness (measured when the children were 3 years old), and vocabulary comprehension and performance (measured using when the children were 4½ years, and in first grade, at 6 or 7 years). Reading was measured via decoding skills and word recognition at 4½ years and in first grade, and comprehension in third grade, when the children were 8 or 9 years. Comprehensive oral ability at 3 years predicted oral ability and vocabulary development at 4½ years, but more importantly, the decoding component of reading at 4½ years. Meanwhile, word recognition in first grade and reading comprehension in third grade were predicted by oral ability at 4½ years.

There were only two findings specifically related to SES. The relationship between oral ability when the children were 3 and 4½ was even stronger in low- than high-SES children, as was the relationship between decoding skills in first grade and reading comprehension in third grade. The authors suggest that these relationships are even more critical for children who may experience home language environments in which they are unlikely to learn letter-sound correspondences (Senechal & LeFevre, 2002). These findings confirm Snow's (2001) proposal that the language environment at home predicts not only language competence at school but also the development of reading skills and subsequent reading comprehension.

## IMPLICATIONS FOR INTERVENTION

Interventions such as Project Head Start in the USA, and Sure Start in the UK, are designed to address many of the issues discussed in this chapter relating to the potential effects of social disadvantage. They begin early; they involve whole families, within communities; they aim to improve children's health, well-being, and readiness for education. It should be noted, however, that there is little evidence yet as to the kinds of intervention that are most successful, given the huge differences in the language environments to which children are exposed before the age of 3 years (Dollaghan et al., 1999). Hart and Risley (1995) argue, for example, that 41 hours of high-quality intervention would be needed, each week, merely for the lowest-SES children in their sample to hear the same number of utterances addressed to them as the highest-SES children. In contrast, Huttenlocher and her colleagues claim, on the basis of their findings, that 'children from low-SES families, whose

syntactic level is quite low at the beginning of the year, may grow as much or more than children from higher-SES families, if their teachers provide input comparable to or greater than the input in the higher-SES preschools' (Huttenlocher et al., 2002, p. 366). We explore this debate further in Part II of this volume, where we report a series of current interventions to enhance young children's spoken language.

## SUMMARY AND CONCLUSION

In this chapter we have looked at the relationship between social disadvantage and children's language competence. Differences have been observed in children from high- and low-SES backgrounds, and a range of explanations have been put forward: poverty, level of maternal education; the home environment; the relationship between mother and child including the nature of the interaction between mother and child; the quantity of speech to which the child is exposed; the nature of that speech and the language environment more generally. These explanations are highly intercorrelated, and recent research has attempted to disentangle them. We then considered the question of whether the language competence of children from low-SES backgrounds should be considered deficient, or merely different. Some researchers would argue that 'differences' are methodological artefacts arising from the way in which language competence is measured; others emphasise the roles of individual variation, language diversity and context-dependent differences. Given, however, the importance of oracy and literacy in education, I would argue that children who are already disadvantaged face the prospect of even greater disadvantage unless they are given the opportunity, through intervention, to make full use of the educational opportunities available to them.

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