What's in a Name?

Coming to Terms with the Child's Linguistic Environment

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Abstract

This article reviews the proliferation of terms that have been coined to denote the language environment of the young child. It is argued that terms are often deployed by researchers without due consideration of their appropriateness for particular empirical studies. It is further suggested that just three of the dozen or more available terms meet the needs of child language researchers in most instances: Child Directed Speech, Infant Directed Speech and exposure language. The phenomena denoted by these terms are then considered. The term register is generally borrowed for this purpose from sociolinguistics. However, close inspection of this concept reveals that the notion of register needs to be constrained, in specified ways, in order to be of any real value within the field of child language research.

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Chomsky (1965:31) characterised the input available to the language learning child as 'fairly degenerate in quality,' further observing that 'much of the actual speech observed consists of fragments and deviant expressions of a variety of sorts' (ibid:201). However, as soon as the input was examined with any rigour, from the 1970s onwards, it became apparent that, far from being degenerate, the linguistic input from adults was remarkable for its well formedness and for the numerous adaptations and simplifications made at every level of linguistic analysis. Phonology, lexis, syntax and pragmatic factors were all discovered to be subject to a wide range of modifications when speakers address young children (for a review, see Clark, 2003).

As research flourished, so too did the number of terms used to describe this special mode of speech. At least a dozen different terms have made an appearance in the literature, with the most notable being: (1) baby talk (Lukens, 1894); (2) nursery talk (Jakobson, 1941/1968); (3) motherese (Newport, 1975); (4) caregiver speech (Ochs, 1982); (5) caretaker talk (Schachter, Fosha, Stemp, Brotman & Ganger, 1976); (6) verbal stimuli (Skinner, 1957); (7) exposure language (Gillette, Gleitman, Gleitman & Lederer, 1999); (8) input language (Ninio, 1986); (9) linguistic input (Schlesinger, 1977); (10) primary linguistic data (Chomsky, 1965); (11) Infant Directed Speech (Cooper & Aslin, 1990); and (12) Child Directed Speech (Warren-Leubecker & Bohannon, 1984). This list is by no means exhaustive. One might add, for example, variations on a theme, like caregiver talk (Cole & St. Clair Stokes, 1984) or verbal environment (Chomsky, 1980). It should also be noted that, although efforts have been made to trace the origins of these

terms, no claims are made as to the definitive nature of this list with regard to the first uses of each term.

Fortunately, one can reduce this burgeoning list at the outset, because some of the terms have not been taken up with any real enthusiasm in the literature. Nursery talk, caretaker talk, verbal stimuli, input language, primary linguistic data, caregiver talk and verbal environment could all, with some justice, be rejected on these grounds. Even so, there remains an embarrassment of riches when it comes to terminology. The aim of this brief review is to consider some of the pitfalls that ensue when the use of terminology is so loosely constrained. In particular, it will be suggested that a lack of scientific precision is almost inevitable when there are so many terms for what, at first blush, appears to be the same phenomenon. In particular, research designs often neglect the implications of the terms selected, with potentially significant, but largely unconsidered, impacts on research outcomes. In consequence, it will be argued that even more drastic pruning of the list above is warranted, for the sake of clarity and consistency. And for the terms that survive, one might advocate a more careful approach in their use.

Choosing One's Terms

The discussion in this section is organised around the limitations inherent in particular terms. The discussion will focus only on those terms that have actually been used with any frequency in the literature. Less popular terms (listed above) will not be considered. It will be argued that just three terms meet the needs of child language researchers on most occasions: Infant Directed Speech; Child Directed Speech; and exposure language.

Ambiguous Terms: Baby Talk

Baby talk is perhaps the oldest term we have, but the term suffers from a fundamental ambiguity. It is not clear whether reference is being made to the language of the child or to that of the person addressing the child (or both). This problem is apparent from the very earliest uses of the term, evident in the following exasperated comment from Lukens (1894:443):

> 'One unfortunate infant, brought up under the tutelage of such a Georgy-porgy, wheely-peely baby-talk mother, called a dog a "waggy," a cow a "horny," a horse a "haha," a nut a "cacker," his nurse "wow-wow," and a banana a "parson," and kept it up till he was four years of age.'

We see here that baby talk has often been associated with the small set of lexical items that figure uniquely in speech directed at children (e.g., ickle, wee-wee, and beddy-bye). The significance of this special vocabulary for language acquisition is probably strictly limited, if only because it is so limited in extent compared to the total number and range of words children are exposed to. In this way, baby talk distracts attention from the wider array of adaptations and modifications that may influence language development. In all, there is no good case for maintaining baby talk, but surprisingly, it continues to feature in the literature, noticeably in fields tangential to child language research (e.g., the discussion of language evolution in MacNeilage, & Davis, 2004). If child language researchers were perhaps more judicious in their use of terminology, inappropriate usage might be less likely beyond the field.

Focus on the Speaker: Motherese, Caregiver Speech

Some terms in science develop a life of their own and enter the popular imagination. One might think of black holes or global warming in this regard, or, in a rather more modest way, motherese. The light-hearted wit that inspired motherese must, in part, explain its hold on the world beyond the confines of Journal of Child Language. But it should be apparent that its value for research within the field is severely limited. The main problem with motherese is that it 'does not seem dependent upon actually being a mother' (Bohannon & Marquis, 1977:1002). Fathers, elder siblings, other family members and complete strangers have all been observed to adapt their speech in characteristic ways. A problem which then ensues is that, although many of the modifications are shared by all groups of speakers, other features vary systematically. Even the more egalitarian option, caregiver speech, suffers in this regard. This latter term suggests that the speech of different caregivers, say, fathers and mothers, does not differ appreciably when talking to their children. But it is well established that certain differences do exist. For example, the so-called Bridge hypothesis was promulgated on the observation that mothers and fathers not only employ distinct speech styles, but that differential impacts on language development therefore ensue (Mannle & Tomasello, 1987). Evidently, the choice of a particular term carries with it a number of assumptions that, without careful consideration, might obscure important facts about the child's linguistic environment.

One arrives at a situation where potentially important differences between different addressers are actually obscured by terms that, by their very nature, seem designed to acknowledge such differences. Often when motherese is used, there is no intention to focus on mothers only (see Gergely, Egyed & Kiraly, 2007, for a recent

illustration). In other cases, a range of different speakers is reported to have taken part, but any differences are obscured under the umbrella term, caregiver speech (e.g., Tardif, Shatz & Naigles, 1997). Conversely, caregiver speech has been used, even when the participants sampled are exclusively mothers (e.g., Rowland, Pine, Lieven & Theakston, 2003). In many cases, there is perhaps no intention to draw attention to differences among distinct groups of speakers. And there may well be no adverse ramifications for the design of such studies. But any term that focuses on a particular group of speakers automatically assumes that the members of that group share certain characteristics in their talk to children. If those features are predicted to influence language development, then it is legitimate to adopt terms that highlight the particular speakers addressing the child. In most cases, however, the focus of research is on the child, rather than on the people addressing the child. That is, we wish to discover what use the child can and does make of available information sources. Terms that focus on the speaker, therefore, are rarely required, but if they are, then one might advocate more care in their use than is generally observed.

Neglect of Interaction: Linguistic Input

Linguistic input seems very broad in its remit, and tends to be used in a neutral, all-embracing fashion. But the focus on input, that is, the presence or absence of linguistic forms, automatically excludes at least two substantial factors. First, all features of interaction and other pragmatic characteristics are neglected. And yet, the way that adult-child conversation is structured has often been shown to exert a significant influence on language development (e.g., Nelson, Denninger, Bonvillian, Kaplan &

Baker, 1984). Second, confinement to the notion of input also neglects the concept of intake. Corder (1967) first pointed out that a subset only of the child's linguistic environment is important for language acquisition, namely, those aspects that the child actually attends to and processes in some meaningful way. The distinction between input and intake is theoretically important, though it must be allowed that, empirically, little progress has ever been made in distinguishing between the two concepts. Nevertheless, when selecting a broad-based term that avoids reference to the particular addresser (or even addressee), one might turn to exposure language in preference to linguistic input (see below).

Neglect of Ambient Language: IDS and CDS

Child directed speech (CDS) probably holds sway as the most popular and useful of the terms available to child language researchers. CDS avoids many of the pitfalls discussed above. Yet it acknowledges that the child's linguistic environment is distinguishable from other sources of language (most notably, Adult Directed Speech). One drawback is that all language within the child's orbit, but not specifically targeted at the child, must be excluded, including, television, radio, song lyrics and printed matter. However, what research there is points to weak effects only (or none at all) of ambient language sources on language development (e.g., Anderson & Pempek, 2005). Nevertheless, it is important to be clear that ambient language is excluded when using the term Child Directed Speech.

It is also worth noting that the language aimed at infants can be distinguished in certain key aspects from that directed at older children. For example, exaggerated

intonation contours and other well-observed phonological adaptations are principally in evidence during the child's first year (Fernald, 1989). Although a systematic comparison between child-directed versus infant-directed speech has not yet been attempted, there are nevertheless good grounds to suggest that a clear distinction can be made and that, therefore, separate terms are warranted. The ultimate vindication of separate terms (CDS versus IDS) would be provided by evidence that the distinct features of each were implicated in distinct developmental outcomes. Undoubtedly, Child Directed Speech remains one of the most useful terms available in the field of child language research. And Infant Directed Speech, potentially at least, appears to have its own intrinsic merits as a term to describe a distinct, and theoretically important, mode of speech.

Theoretically Neutral: Exposure Language

Exposure language makes perhaps the fewest unwarranted assumptions of all the terms available, and on many occasions, might present a preferred option. Elements of interaction are not precluded, nor are particular groups of language users. Additionally, no assumptions are made about the language targeted at the child versus alternative linguistic sources. In particular, there is scope to focus not only on those features that stand out as distinct (or even unique) in the child's experience of language, but also those features held in common by all language users. Furthermore, no theoretical assumptions are made about the status of the child's language environment in explanations of language acquisition. Thus, one need not subscribe to the view that the distinct features of the language available to children are actually responsible, in and of themselves, for any observed effects on development. This pre-theoretical neutrality is perhaps less clearly

apparent in the case of either CDS or IDS, where one might more readily assume (or rather, predict) an explanatory role for the special features observed. Exposure language, on the other hand, embraces (but is not confined to) the view that the information available to the child comprises a set of linguistic forms no different in any qualitative respect from other forms of language (e.g. Adult Directed Speech). Researchers from both nativist and non-nativist perspectives can therefore find some common ground, at least in this respect (Gillette et al., 1999; Dan Slobin, personal communication, December 2006).

A Name for What?

What is the concept that researchers have been struggling to name with their multiplicity of terms? An answer to this question takes natural precedence over the problem of finding an appropriate label, but, unfortunately, it has attracted scant attention in the child language literature. If reference to this issue is made at all, then the notion of register is typically invoked (e.g., Warren-Leubecker & Bohannon, 1984:1383). The concept of register has been appropriated from sociolinguistics, with two unfortunate consequences. First, it is not acknowledged that, even within sociolinguistics, the notion of register is deeply problematic. Second, there has been very little consideration of how relevant or useful the concept of register is for the study of child language.

Within sociolinguistics, two main sources of confusion can be identified. First, there is no consensus on what might distinguish the three concepts of style, dialect and register. In this regard, there are echoes of the central problem addressed here concerning an excess of poorly defined terms that are ill-constrained in their usage. Second, it is not

clear from sociolinguistic research what the defining features of a register might be. On the first point, style and register are sometimes used interchangeably in describing 'changes in situational factors, such as addressee, setting, task or topic' (Holmes, 2001:246). In a similar vein, register and dialect often occupy the same territory. Thus, Sanders (1993) includes regional background as a defining feature of register, even though this characteristic is quintessential to the notion of dialect. Similarly, Solano-Flores (2006:2364) argues that 'registers tend to be associated with a dialect.' No wonder, then, that Hudson (1980:51) has remarked that 'one man's dialect is another man's register.'

Isolating the defining features of a register is also a fraught issue, perhaps not surprisingly, given the noted overlap with other concepts. Situation of use tends to feature in many descriptions, with a speaker's register being subject to the influence of a wide range of factors, including age, sex, socioeconomic status, social distance, occupation, regional background, degree of intimacy, and the formality of the situation (Sanders, 1993; Iwasaki & Horie, 2000; Holmes, 2001). Some even argue that the language deployed in particular types of text can be described under the heading of register. Thus, for Biber (1995:1) 'novels, letters, editorials, sermons and debates' can all be viewed as exemplars of different registers.

Beyond situation of use, some authors highlight the circumscribed use of a particular set of linguistic forms as a defining feature of a given register. For example, in their discussion of Thai, Iwasaki & Horie (2000) point to the restricted use of pronominals, formality-marking particles, personal names, occupational titles, kin terms and pragmatic particles. In a similar vein, Holmes (2001) points to particular sets of

lexical items that tend to become associated with particular occupational groups. In many cases, though, registers are not distinguished by exclusive use of particular sub-sets of language forms. In the case of talk directed at children, of course, the vast majority of the language forms used by parents (and others) also feature in speech to others. What is unusual in the case of children is that they are typically exposed to a special sub-set only of the full range of language forms available. But this characteristic does not apply in the case of other registers, where considerable overlap in language forms is the norm from one register to another. Exclusive association with a given register is typically confined to just a small set of lexical items (e.g., the baby talk words described above). But, irrespective of lay perceptions, few child language researchers would cast such lexical curiosities as the main player in conceptualising the child's language environment.

It is apparent that attempts to define register on the basis of a restricted set of language forms will founder, at least within the field of child language development. Unfortunately, though, attempts to find an alternative set of core, defining features have not fared well. Biber (1995:7) argues that 'register distinctions are defined in non-linguistic terms, by differences in purpose, interactiveness, production circumstances, relations among participants, etc..' The unspecified 'etc.' in this definition is a warning sign that matters are not well resolved. And Biber (ibid:8) acknowledges that no consensus exists within sociolinguistics on the definition of register. The aim here is not to explore the merits of competing positions. It is sufficient simply to point out the considerable discord within sociolinguistics in defining the notion of register.

Of import here, the concept of register has been appropriated without due consideration for its worth within the field of language acquisition. In the event, it

emerges that the value for sociolinguistic research is questionable and, at the very least, some re-evaluation is warranted. If one retains the notion of register for child language research, then it becomes apparent that at least seven constraints might be invoked: (1) The particular language forms deployed will not uniquely identify a 'child language' register (CLR). (2) The language forms observed in a CLR comprise a sub-set of the forms available in adult language, that is, those registers adopted for communication by two or more adults. (3) While a small (typically, very small) set of lexical items might be uniquely identified with a CLR, they cannot be a necessary feature because their universal occurrence for all speakers has not been established. (4) A CLR can, in part, be identified by categories of language forms and language use beyond part of speech and aspects of grammar. Concrete (rather than abstract) vocabulary, high levels of expansions and the frequent placement of new information utterance-finally are but three examples in this respect. (5) Situational factors are critical to the constitution of a CLR. In particular, one might predict that communication between a young child and a conversational partner who is, in some degree, cognitively and linguistically more mature, provides a key contextual impetus for the creation and deployment of a CLR. (6) It follows that, unusually (though not uniquely), a CLR is constrained by its asymmetry, in the sense that only one conversational partner uses the register; the language learning child has a different mode of speech. (7) The CLR is essentially dynamic; it changes over time, both in terms of the particular categories of language forms deployed and also in the frequency and patterns of usage of those categories (Bohannon & Marquis, 1977). To conclude, identifying the object of enquiry is critical in any scientific enquiry. If there is a case to be

made for the distinctiveness of the child's language environment, then the notion of register, more rigorously constrained, might have some value.

Concluding Remarks

The introduction of new terms can sometimes be taken as a sign of increasing maturity within a given research domain. This is true to the extent that terminology helps researchers specify and explain the object of enquiry both more precisely and more accurately. In the case of the child's linguistic environment, however, it is not always easy to discern a sense of progress with the advent of new terms. One might even argue that the mushrooming of terminology is potentially harmful to the field, since it betrays both a lack of consensus and a lack of clarity with regard to an important basis for research. The foregoing review has attempted to demonstrate the value of curtailing the menu of terms in use. Otherwise, confusion is almost inevitable. For example, Sokol, Webster, Thompson & Stevens (2005:479) suggest that 'motherese is the child-directed speech (CDS) used by caregivers to communicate with preverbal children.' This definition is not only inaccurate, but confounds a number of factors which researchers have been careful to tease apart over the past forty years or so. These include: (1) the source of language information (e.g., mother or caregiver or television); (2) the age of addressee (e.g., an infant or a child post-infancy); and (3) the type of language information under investigation (e.g., types of linguistic forms or features of interaction or a combination of both). By keeping these factors in mind, potentially important distinctions remain open to enquiry and are less likely to be obscured. In conclusion, this review has proposed a number of constraints that might help define the phenomenon of

interest (register). And it has been suggested that a restricted menu of terms can satisfy most of the requirements of empirical research, namely: (1) Child Directed Speech; (2) Infant Directed Speech; and (3) exposure language. Of course, Pandora's Box was opened long ago, so the best one might hope for is greater care and more explicit consideration in the use of existing terms.

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