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Speaker Perspective and Lexical Acquisition

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Speakers can choose among different perspectives when they present entities and events to their addressees in conversation. Each perspective may be marked by a combination of syntactic and lexical choices on the part of the speaker. In this paper, I focus on lexical choices and on how they affect assumptions we make about the acquisition of meaning in the lexicon. In exploring speaker perspective, I will take both non-linguistic and linguistic skills pertinent to perspective-taking, and show how very young children already appreciate certain aspects of perspective-taking, both in terms of line-of-sight and in terms of lexical choice. These skills, I will suggest, should lead us to modify some proposals that have been made about constraints on the early acquisition of word meaning.

Choice of perspective leads speakers to categorize entities and events in different ways. Each perspective leads to the selection or highlighting of different properties pertinent to the goal in discourse while leaving other properties unmentioned because they are not currently relevant. As Lakoff and Johnson (1980:163) put it:

"In making a statement, we make a choice of categories because we have some reason for focusing on certain properties and downplaying others."

For example, I can talk about one of my neighbors as *the cellist*, *the climber*, *the mother*, *the teacher*, or *the rose-grower*, depending on who I am talking to and why. That is, I choose how to present my neighbor to my addressee, and that choice depends in part on my goals in the conversation (and in part on what my addressee already knows). In essence, choice of PERSPECTIVE is always relative to the speaker's purpose in talking to the addressee:

"...the truth of a statement will always be relative to the way a category is understood for our purposes in a given context [Lakoff and Johnson, p. 164]."

What implications does this have for language acquisition? First, children hear multiple labels for the same entities from the very start. Parents, for instance, may talk about the family pet on one occasion as *the dog*, and on others as *our pet*, *Tim's pup*, *the collie*, *the destroyer of shoes*, or *the rubbish bin* (Ravn 1988). So young children hear a range of different labels, each presenting a different perspective, and they do so from long before they themselves begin to speak. To give a couple more commonplace examples, children may hear their parents talking about another child as *the baby*, *Jan's son*, *the little boy*, *Duncan's cousin*, *Kate's nephew*, *the pest*, or *our messy eater*. Or they may hear them talk about a particular piece of china as *the bowl*, *the dish*, *the rose-bowl*, *the center-piece*, *the Dresden china*, *Grandma's treasure*, or even *the gold-rimmed basin*. The point I want to underline here is that adults continually vary the perspectives they take and choose their words accordingly. They do not choose one single perspective and present only that to their young children on every occasion. So the children have heard several labels for many of the everyday entities around them for many months before they themselves begin to speak.

Exposure to different labels, of course, by no means guarantees that children will grasp the fact that different lexical choices mark differences in perspective. But they will be highly familiar with the notion that the same referent may be talked about in several different ways. The next question, then, is, Do one- and two-year-olds have any perspective-taking skills that would help them grasp the fact that lexical choice, like physical position, can mark different perspectives? The answer is critical for some of the assumptions being made today about how children map meanings onto forms as they build up their lexicon (see Clark 1993). For example, several researchers have assumed that children impose certain constraints as they try to isolate meanings and map them onto forms. One of these is that young children assume that an entity can have only one label and no more. Another is that there is no overlap in meaning among labels, and another is that all labels contrast at a single level in the lexicon. Yet none of these assumptions is consistent with the input children are being exposed to, and children as young as one or two are very sensitive to many properties of the input they hear (e.g., Choi & Bowerman 1991).

I will argue that in fact very young children exhibit quite sophisticated perspective-taking skills, both non-linguistic and linguistic, from as young as 1;6 to 2;0 years old. The early emergence of these skills is quite consistent with the lexical input children receive, but it is inconsistent with many recent formulations about lexical acquisition. I first present some of the evidence that children develop perspective-taking skills at an early age, and show that these skills are relevant to their learning of linguistic distinctions that we all, as speakers, exploit to mark distinct perspectives. I then look at some of the implications for research on early meaning acquisition.

Evidence for perspective-taking

Evidence for perspective-taking comes from several sources, some non-linguistic and some linguistic. Combined, they strongly suggest that by age two, children are quite aware that one can look at and talk about the same object from different perspectives.

Pretend play. In non-linguistic domains, one source of evidence for perspective-taking comes from the ability to consider an object on one occasion in its canonical or usual role—a spoon as a spoon, or a block as a block—and on another occasion in some other role—a spoon being treated as a walking stick or a block treated as a cup. In fact, young children begin to exhibit symbolic play, often using one object to “stand in” for another, from as young as 10 months old (e.g., Bates 1979). For example, 10- to 12-month-olds readily hold a spoon up to their ears as if it were a telephone receiver, yet they know perfectly well that they are holding a spoon, and at mealtimes use the spoon for eating. The same infants will take a block, a pebble, or a matchbox and make it move across the table, with accompanying car-noises (“vroom-vroom”) when pretending it is a car, but on other occasions show clearly that they know what a matchbox is for, where one might find pebbles, and how to place one block on top of another when building. And the same infants will also pick up a bread-basket, familiar from mealtimes as a container for slices of bread, invert it, and place it on their heads. (Notice that nothing inherent to these objects leads to their particular “assignment” as something else in pretend-play.) In effect, in pretend-play, children assign to familiar objects a different role and in so doing, they temporarily take another perspective on the object and through their actions demonstrate to the observer just what perspective they have chosen.

Physical perspective. Children are also able to take different physical perspectives at an early age. For example, they become adept quite early on at taking someone else's point of view. They realize that what people can see depends on where they are looking from (Lempers, Flavell, & Flavell 1977). For example, if 18-month-olds are shown a cup with a picture pasted on the inside bottom surface, they already know that when showing it to another person, they must tilt the cup towards that person so the inside bottom picture will be visible. Similarly, infants as young as one year will turn a book towards an observer, although they typically do so by turning the book through the vertical plane towards an observer seated facing them. (That is, the page is therefore upside down for the observer.) By age two, though, children realize that, in such contexts, they need to rotate a book in the horizontal rather than the vertical plane, and consistently do so when asked to show someone a picture. Finally, by age two, children can also comment explicitly on the fact that for people to see something, they must be looking towards it, as in the following interchange (Clark, unpublished diary data):

D (2;0,9), after supper, playing with two small plastic rabbits and another small figure; he first placed all three on a low table, on the edge, so they faced his Mo, and said:

— *∂ watching Eve, rabbits watch Eve.*

Then D carefully moved them across the table to an adjacent side, turning them so they faced his Fa:

— *∂ watch Herb.*

Fa: Can you make them watch television, can you make the rabbits watch television?

— *Yes.*

Then D re-arranged them again, along another edge of the table, so they faced the TV, and added some other toys to the array; then, pointing at them, he said to his Mo:

— *Eve, Eve, ∂ all watching TV.*

In summary, by 1;6 to 2;0, children can appreciate differences in perspective, and so know how to make objects available for someone else to see. This physical perspective-taking complements children's ability to pretend that one object is another, effectively presenting it from a different perspective.

Multiple levels. Young children also display their perspective-taking ability in their spontaneous speech. By age two, they can often use labels from more than one level to talk about many of the objects around them. They may call a dog *dog* on some occasions and *collie-dog* on others; or a car *car* on some occasions and *Volvo-car* on others. Young two-year-olds are adept at coming up with labels, built from the words they already know, for subcategories of basic categories, as in the following examples:¹

- GR (1;7) *crow-bird* (picture of a crow)
 HL (1;11) *oil-spoon* (spoon used for cod-liver oil)
 EP (2;0) *coffee-churn* (coffee-grinder)
 D (2;2) *tea-sieve, water-sieve* (small and large strainers)
 D (2;3) *boat-shirt* (T-shirt with picture of boat)
 A (2;3) *car-smoke, house smoke* (exhaust, smoke from chimney)

And young two-year-olds, as well as still younger children, also reveal a quite extensive ability to use several different labels for the same referent, as in these examples from D (Clark, diary data):

D (1;7,1) looking at his bowl of cereal at breakfast:

— *Food.*

A moment later, looking at his own and his parents' cereal:

— *Cereal.*

D (1;7,20) doing his animal puzzle, D named each animal type as he took it out (e.g. *lion, zebra, monkey*, etc.); then on completion, with all of them back in the puzzle:

— *Animal back.*

D (2;1,27), after his Mo asked what he was usually called;

Mo: Are you 'lovey'?

— *No, I 'Damon', I 'cookie', I 'sweetheart'! Herb 'lovey'.*

D (2;2,24), playing with some small dolls:

Mo: Do you call them people?

— *They not people, they childrens. They kids.*

Notice that on each of these occasions, the child readily applies two or more labels to the same entity. Such exchanges and uses of multiple labels turn out to be common in two-year-old speech, as in this conversation between Eve (2;1) and her mother (from transcript 16, CHILDES; Brown 1973):

E: *We don't like the fan. People and Momma, and Fraser and Nanna and Papa and Cromer.*

Mo: They're all people.

E: *Huh?*

Mo: They're all people.

E: *And all children.*

Mo: No, they're not children. Mom and Fraser are grownups and you're a child. You and Sarah.

E: *Daughters.*

.....

Mo: Oh, daughters. Daughters, that's right you and Sarah are daughters. That's right. You're a daughter and Sarah's a daughter.

E: *And Papa a daughter.*

Mo: No, Papa's not a daughter. Papa's the papa.

E: *Eh?*

Mo: Papa's the papa. We're a family. We're called a family.

E: *Family.*

Mo: Uhhuh.

E: *You and Cromer.*

Mo: No, not me and Cromer. Me and Papa.

Multiple labels for the same referents are often commonplace by age two or two and a half, and the numbers only increase from that point on.

More elaborate perspective marking appears in children's speech around age four, as they explicitly take on the perspective of other creatures that are larger or smaller, for instance, than humans (Clark, diary data):

D (3;11,17) at a wild animal park:

— *ANTS think people are walking trees.*

D (4;5,2), Mo reading K. Graham's *The reluctant dragon*, D holding his fingers an inch apart:

— *...and I would be this big to the dragon.*

D (4;5,27), thinking about giants:

— *You know what hours are for giants from other people? Years! They have twelve years every day!*

(That is, each giant day would be made up of 12 human years.)

D (4;5,27), on giants again:

— *For a GIANT, a year is just an hour, and an hour is just a minute! (pause) And for an ANT, an hour is a year!*

In summary, multiple labels and explicit reference to point of view have already begun to emerge by age two. These linguistic markers of perspective parallel children's non-linguistic skills in knowing what it means to take different perspectives.

Using the lexicon to mark perspective

Speakers can present entities to their addressee at different levels of categorization, on some occasions relying on the basic-level term like *car* or *tree*, on others relying on subordinate terms like *Fiat* or *Volvo*, *beech* or *oak*. There is often no morphological relation between the basic-level term and its subordinates, but speakers sometimes mark this relation explicitly, by using the basic-level term as the head of a compound labeling the subordinate category, e.g. *car* in *Fiat-car* or *tree* in *beech-tree*. This option is frequently adopted spontaneously, from around age two on, by children acquiring Germanic languages such as English, German, or Swedish (Clark 1993).

Using noun compounds. The generality of these observations is supported by experimental evidence from both comprehension and production tasks. For example, English-speaking two-year-olds are close to adults in their ability to identify the initial, stressed element in a novel noun-noun compound as the modifier and the second element as the head (Clark, Gelman, & Lane 1985). Young Hebrew-speaking children equally reliably identify the first element in a noun-noun combination as the head, and the second as the modifier (Berman & Clark 1989). That is, children as young as 2;6 (or younger) know which element in a novel

compound is the head and therefore picks out the kind of category being talked about, and which the modifier, that then picks out the specific sub-type.

English-speaking two-year-olds have also mastered this modifier-head order in producing novel noun-noun compounds in an elicitation task. For example, an adult would hold up a card with pictures on both sides, and say of the side facing her but not visible to her child addressee either: "I have a bird-tree" or "I have a picture." She would then point at the side of the card invisible to her but visible to the child, which showed a picture of one tree with pencils on it and one tree with carrots on it, and ask, "What do you see?" Children typically reply with the compounds *pencil-tree* and *carrot-tree*, respectively. That is, they used the basic-level *tree* as the head noun and *pencil* and *carrot* as modifiers to pick out the two sub-types. By age two, children can produce both basic level terms like *car*, *tree*, *chair* or *cup*, and can pick out subcategories such as *Volvo-car* (for a Volvo), *bamboo-tree* (for bamboo), *telephone-chair* (for a chair where one sat when telephoning), and *juice-cup* (for a cup used for juice). Reliance on such compounds shows that young children can label objects at at least two levels, and hence from two distinct perspectives (Clark et al. 1985, Waxman & Hatch 1992).

Using multiple labels. Children as young as two turn out to be quite adept at switching perspective. In another study, we looked at whether two- to four-year-olds could switch labels either within a domain—as when a speaker shifts levels from *cat* to *animal*, for instance—or across domains—as when a speaker shifts from *cat* to a term in a distinct domain orthogonal to the first such as *pet* (Clark & Svaib, in prep.). Shifts like these are common in everyday speech and also in speech to young children, where adults are sensitive to which of many terms may be the most useful in different contexts (e.g. Brown 1958). We predicted that since children are exposed to multiple labels for the same referents from the start, they should readily accept multiple labels from the earliest stages on in acquisition. In addition, children should be able to produce multiple labels, marking different perspectives, again from an early point in acquisition. (The findings I have just reviewed all offer general support for this view.)

These predictions, however, are at odds with predictions based on some current research on the kinds of constraints children might bring to the acquisition of word meanings. For example, several investigators have argued that children assume each category can have only one label. A cat can at first only be called *the cat* and nothing else. This follows from the assumption that children treat all labels for objects as mutually exclusive.² That is, there should be no overlap (partial or full) between any pair of labels that young children accept or produce. If this were the case, young children (two- to three-year-olds) should reject one of the labels offered in utterances where the same referent is labeled in two or more ways, whether the added labels are drawn from the same domain or from a separate one (i.e. within- or across-domain uses).

Our study was designed to test these competing predictions. At the same time, we also predicted that because children are known to take some time to learn superordinate terms, they might find it easier to shift perspective when they moved from one domain to another (the ACROSS condition) than when they moved from one level to another in the same domain (the WITHIN condition). That is, the WITHIN shifts might be harder than the ACROSS ones. We therefore designed a picture-book for children to look at, with multiple figures in each picture, and then asked children aged 2;0 to 4;6 a series of questions about the arrays on each page. (The figures in

the pictures were based on the animal characters in human roles familiar to most children from Richard Scarry's books.) To study WITHIN-domain shifts, we asked questions using basic level animal terms (e.g. *bear*, *pig*, *cat*, *dog*) and their superordinate for the domain "animals", namely *animal*. For ACROSS-domain shifts, we used the same basic level terms (*cat*, *dog*, *bear*, *pig*) in our questions, plus terms for professions (e.g. *cook*, *painter*, *fireman*, *sailor*).

Overall, the results showed that even the two-year-olds did very well on both types of perspective-shift, and were able to use more than one label for each targeted reference over 97% of the time. There were no significant differences in children's ability to respond to questions involving WITHIN versus ACROSS shifts in perspective. One of the only differences between the two types of shift was that the younger children were more likely to produce lexical innovations in the case of ACROSS-domain shifts. When they didn't know the conventional profession-name for a particular profession, they would coin one. For example, a cat with a fishing-rod was called a *fish-cat* (in lieu of *fisherman*), a cat holding a lasso, a *jump-roper* (in lieu of *cowboy*), and a pig baking bread, a *caker* (in lieu of *baker*). In short, even the youngest two-year-olds were highly successful in switching their perspective on the characters they saw, and they did equally well in switching from one level to another (e.g. *animal* to *bear* or *cat* to *animal*) within a domain, and from one domain to another, from animal-type to profession (e.g. *pig* to *sailor*) or from profession to animal-type (e.g. *mailman* to *cat*) (Clark & Svaib, in prep.).

Rejecting labels. Lastly, let me turn to some data on children's rejections of words offered by adult speakers. Such data have often been relied on to support the view that children do not allow two labels for the same entity. However, reports of such rejections turn out to be extremely rare, and analysis of detailed records shows that most appear to involve *not* rejections of words that are new, and therefore unfamiliar, but rejections of words already well-known to the child (Clark 1993). That is, the vast majority of such rejections do not support "single level" or "no overlap" accounts of early lexicons since *both words*—the one rejected and the one chosen in its place—are already known to the child. Rather, the rejection data offer further support for the view that children as young as two are able to mark different perspectives through lexical choices between pairs like *bear* versus *doll* or *parrot* versus *bird* (Clark 1993):

D (1;10,9), Fa reading book about dolls, picks up a small Paddington Bear,
Fa: This is a doll.
— *No, bear!*

D (2;0,29), Fa giving D last spoonful at supper,
Fa: Clean up the whole plate!
— *Don't have ∂ plate, have ∂ bowl.*

D (2;2,20), looking at a book with Fa,
Fa: Look at those birds.
— *That's not birds, those PARROTS.*

D (2;2,24), D playing with small Fisher-Price dolls,
Mo: D'you call them people?
— *They not people, they childrens. They kids.*

Data from children's rejections of some labels in favor of others, then, offer further evidence that they already have some understanding of speaker perspective in language use.

Some Implications

These findings—non-linguistic and linguistic, observational and experimental—all show that even very young children can and do use the lexicon to present objects from different perspectives. The findings reported here have implications for some of the work being done on early lexical acquisition. One tenet of some of that research is that children themselves impose certain constraints on what they consider as a potential meaning for an unfamiliar word form.

The predictions from some of these constraints are not supported by the present data. For example, the Mutual Exclusivity assumption proposes that children act as if lexical items do not overlap in meaning, and are therefore mutually exclusive. Something called *the cat* can't also be called *the dog*. But notice that the cat can be called *my pet*, *the animal next door*, *the Siamese*, *the bird-catcher*, or *the purrer*, all terms that overlap and that can have the same reference. Some of these labels are superordinate to *cat* (e.g. *animal*), some subordinate (e.g. *Siamese*), some orthogonal (e.g. *pet*), and some focus on specific characteristics (e.g. *purrer*, *bird-catcher*). And children are exposed to at least this range of perspectives in the input around them from the start.³

In effect, these findings show that by age two, children do not place restrictions on the number of labels applicable to a specific individual, but allow multiple labels; these may be subordinate, superordinate, or orthogonal, or they may pick out parts or specific characteristics. Even when they reject a label, they appear to do so in order to propose their own in place of the already familiar label offered by the other speaker. The point is that these observations are entirely consistent with young children having already grasped the notion of speaker perspective. But they are not consistent with children's assuming just one label per entity, assuming a single level in the lexicon, or assuming no overlaps in meaning.

Some assumptions about the nature of the constraints on young children's mappings of meanings onto words will therefore need drastic revision. Children themselves show us that they can look at many things from more than one perspective by their second birthday. And they can do this both with respect to physical location and word choice.

NOTES

¹ These children already knew the basic-level terms for the categories in question, and were coining compounds in order to label sub-categories (see also Clark, Gelman & Lane 1985).

² See, for example, Woodward & Markman (1991): "To preserve mutual exclusivity children should not allow labels to overlap".

³ Notice that these data are in no sense incompatible with the principle of contrast (e.g. Clark 1990). They simply underline the fact that sense and reference are not equivalent. Terms with different senses may be applied to the same referent.

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