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Journal of Pragmatics

journal homepage: www.elsevier.com/locate/pragma

Perspective-taking and pretend-play: Precursors to figurative language use in young children

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ARTICLE INFO

Article history:

Received 6 June 2018

Received in revised form 12 November 2018

Accepted 13 December 2018

Available online xxx

ABSTRACT

At what point do children move from literal uses of language to figurative ones, making use of metonymy and metaphor, for example? In this paper, I explore the contributions of **perspective-taking** and **pretend-play** as precursors to the emergence of figurative language in children. Speakers mark *conceptual perspective* with lexical choices to indicate kind and level of categorization (for example, *Siberian tiger* vs. *tiger* vs. *animal*), membership in orthogonal domains (*bear* vs. *mailman*, in a Richard Scarry book), and re-categorization (*waste-basket* vs. *hat*). In *pretend-play* speakers assign roles and make use of props (e.g., *I'm the daddy and this is my baby* [holding teddy-bear]; *Fill up my cup* [holding out a block]; *This is my sword* [waving paper roll]). In short, pretend play typically involves re-categorization – viewing participants and objects in new roles. This in turn requires that children extend their uses of conventional terms in talk. Perspective-taking emerges in the second year, along with early pretend-play: these abilities, I suggest, provide a foundation for figurative uses of language in children.

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1. Introduction

Let us begin by considering the examples cited in (1)–(3):

- | | | |
|-----|---|----------------------------|
| (1) | E (1;3, <u>lies down</u> on the floor): <i>night-night</i> . | [Bowerman, diary data] |
| (2) | S (2;0): <i>I pretend the sand is a birthday cake!</i>
Fa: The sand is a birthday cake?
S: <i>I preTEND</i> . | [Gelman & Gottfried, 2006] |
| (3) | R (2;5, climbing over Father and brother who were wrestling, <u>as he slid down</u> the other side): <i>I'm a big waterfall</i> . | [Carlson & Anisfeld, 1969] |
| (4) | D (3;3.22, <u>points to his eyes</u> , wide open)
D: <i>here are my lights. now they are on.</i>
(then closes eyes) <i>now they are off</i> . | [Clark, diary data] |

In each case, the child appears to be using conventional terms in contexts where there is no conventional referent for the expression used. These I will call non-literal uses. The child E is pretending to go to sleep on the floor; S comments on an

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explicit pretence; R identifies himself as a waterfall as he slides down from his climb, and D claims his eyes are lights, now on (open), now off (closed). In each case, the children produce conventional expressions, appropriately applied to their current pretence. That is, they have extended conventional terms to non-literal contexts, namely contexts where E is not sleeping, where sand is not a cake, where R is not a waterfall, and where eyes are not lights. Such extensions may emerge as soon as children have some conventional meanings in place. But what licenses such extensions of use? In this paper, I will argue that children build up certain skills, beginning in their second year, that provide an eventual foundation for figurative uses of language. The skills in question involve development in two domains that emerge along with language: the ability to take different conceptual perspectives on an object or event and so re-categorize it, and the ability to do pretend-play, beginning with enactments of situations already familiar from daily routines and activities. Pretend-play episodes also rely on perspective-taking, with re-categorization of the roles and objects involved. Both abilities start to emerge from age one onwards, and both, I'll suggest, play an essential role in the emergence of figurative uses of language.

2. Language acquisition and word meanings

I'll begin with a brief review of some aspects of early word acquisition. By the age of 8–10 months, children have come to understand a handful of words (Bergelson and Swingley, 2015). By age one, they may produce a few words but understand many more, and by age two, they can typically produce between 100 and 600 words. By age six, they understand as many as 14000, although they don't yet produce anywhere near that number. And they add around 3000 a year in comprehension for each year in school (Clark, 2016).

How do children establish initial word meanings for words? Researchers have proposed that children rely, from early on, on fast-mapping in context (Carey and Bartlett, 1978; Heibeck and Markman, 1987). That is, the child can assign a preliminary meaning when adult and child share joint attention on a possible referent, when the child's field of view is limited (arms are short at age one, and the field of view tends to be filled by whatever is held in both hands), and the adult makes repeated use of a single referring expression (Clark and Estigarribia, 2011), as in (5):

- (5) Mother: That's a truck.
It's a truck.
A big truck.



Children continue to hear further uses of the same word, here *truck*, in other contexts for similar referents, and eventually start to produce *truck* themselves to refer to possible trucks. (Young children may over-extend the term as needed, for communicative purposes (see Clark, 1973; Gelman et al., 1998).)

Adults offer young children new words and young children take these up, acknowledging the offer and often repeating the new word in so doing (Clark and Wong, 2002; Clark, 2007, 2010), as in (6)–(8):

- (6) Offering a word for an object
Child (1;7.9, points at picture of kangaroo)
Mother: Yeah <laughs> It's called a kangaroo. Kangaroo.
Child: **roo**. [neweng corpus/CHILDES]

- (7) Offering a word for an action
Abe (2;4, wanting to have an orange peeled): *Fix it*.
|| Mother: You want me to peel it?
|| Abe: *Uhhuh*.
Peel it. [Kuczaj corpus/CHILDES]

- (8) Offering a word for a relation
Naomi (2;7.16, talking about children in a tree): *One fell down on a tree*.
Father: He fell down from a tree.
Naomi: *He fell down **from** a tree*. [Sachs corpus/CHILDES]

Children take up such offers rather frequently. In one study of over 700 new-word offers, children repeated the target word in the next turn 54% of the time; acknowledged it, with *mh*, *yes*, *oh*, or, occasionally, *no*, in the next turn 9% of the time, and moved on, on the same topic, the rest of the time (Clark, 2007).

Adults not only offer young children new words for objects, actions, and relations, they also offer reformulations, conventional versions of what they think their children intended, when those children make errors, as in (9) and (10):

- (9) Reformulation with a side sequence:
Abe (2;6.4): *Milk. Milk*.
|| Father: You want milk? (Fa interprets one-word utterance)
|| Abe: *Uh-huh*.
Father: Ok. Just a second and I'll get you some. [Kuczaj corpus/CHILDES]

- (10) Reformulation with an embedded correction
 D (2;4.29, being carried): *Don't fall me downstairs!*
 Father: Oh, I wouldn't drop you downstairs. (Fa corrects verb)
 D: *Don't **drop** me downstairs.* (repeat of corrected verb) [Clark, diary data]

In fact, adults reformulate children's errors, whether of phonology, morphology, lexicon, or syntax, with considerable frequency, as shown in Fig. 1 (based on Chouinard and Clark, 2003).

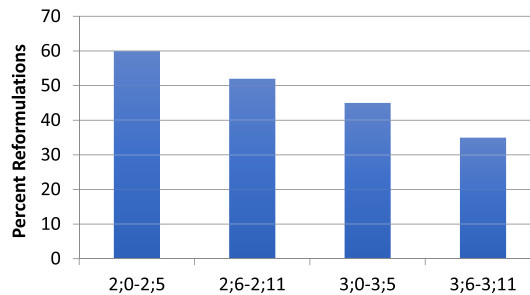


Fig. 1. Percent adult reformulations of child errors by age.

Adults also make offers within repairs when their children mislabel something, as in the exchanges in (11)–(14):

- (11) G (2;5.13) *il fait un pigeon.* 'he's drawing a pigeon'
 Mo: Tu crois que ce sont des pigeons là? 'you think those are pigeons?'
 G: *oui.* 'yes'
 Mo: Non. Des oiseaux blancs comme ça au bord de la mer ce sont des mouettes, hm? 'no, white birds like that at the seaside, those are sea gulls, aren't they?' [Champaud corpus/CHILDES]
- (12) Abe (2;10.20): *I'm trying to tip this over, can you tip it over? can you tip it over?*
 Mo: Okay I'll turn it over for you. [Kuczaj corpus/CHILDES]
- (13) Adam (3;1.0) *what xx she got a wiggleworm? why she...*
 Adult: I don't think that was a worm.
 I think that was a snake maybe. [Brown corpus/CHILDES]
- (14) Adam (3;1.0) *mommy, where my plate?*
 Mo: You mean your saucer?
 Adam: *yeah.* [Brown corpus/CHILDES]

In the course of offering new words, adults also supply various kinds of information about the referents they are labelling. This information typically includes class-membership ('An owl is a bird'), parts ('Look at the rabbit's tail'), characteristic motion ('The pony is galloping'), function ('This ball's for throwing'), characteristic noise ('Lions roar'), and habitat ('Dolphins live in the sea'). They add such information in pragmatic directions about all kinds of properties possessed by members of the category just introduced (Clark, 1998; Clark and Wong, 2002; Clark and Estigarribia, 2011), as in the typical exchanges in (15)–(17):

- (15) Parent (holding out measuring spoon): That's a spoon.
 Child (1;6, touches spoon)
 Parent: Do you know what you do with a spoon?
 What do you do with a spoon? You EAT with a spoon. [Clark & Estigarribia, 2011]
- (16) Naomi (2;7.16): *mittens.*
 Father: Gloves.
 Naomi: gloves.
 Father: When they have fingers in them they are called gloves and when the fingers are all put together they are called mittens. [Sachs corpus/CHILDES]
- (17) Adam (3;4.1): *what is dis # huh? what is dis # huh?*
 Adult: Those are tweezers.
 Adam: *tweezers for what?*
 Adult: For picking up things. [Brown corpus/CHILDES]

Another aspect of lexical development is the construction of coinages, new words designed for the occasion. Most speakers, adult and child, on occasion find themselves in situations where no word quite fits the meaning they wish to express, so they coin a new one for just that one time. Some coinages catch on and become part of the conventional lexicon, but most remain nonce uses. Children start to make use of coinage early on, around two or so, to fill lexical gaps, using the most productive options in their language (Clark, 1993). They coin new verbs, as in (18), and new compound nouns, as in (19).

- (18) Some novel verbs (from Clark, 1982, 1993):
 D (2;4.13, grinding pepper onto counter): *I'm sanding.* [= grind]
 D (2;6.23, holding two pencils): *I sharpened them.* [= sharpen]
 D (2;8.20, to Mo with hose): *an' water the dirt off my stick.* [= wash off]
 D (2;9.1, of sock): *did you needle this?* [= mend]
- (19) Some novel noun-noun compounds (from Clark, Gelman, & Lane, 1985):
 D (1;8.5, playing with spoon and cup): *orangejuice-spoon.*
 D (1;9.27, as Mo put ½-pint cream carton on table): *báby-milk.*
 D (1;11.30, rejecting book): *I read a Bábar-book, not a dúck-book.*
 D (2;3.0, getting dressed): *I want my boat-shirt.*

Novel compounds like those in (19) are generally used to identify sub-categories (see Clark et al., 1985), as in (20) and (21):

- (20) A (2;3): *pláte-egg vs. cúp-egg* [= fried vs. boiled]
 (21) R (2;0): *I want a fire-dog.* [= 'a dog like the one found recently at the site of a fire nearby']

In conclusion, children start out by taking up words from their interlocutors. And once they have acquired an initial vocabulary, they also begin to coin some words to express other meanings they need.

3. Conceptual perspective and pretend-play

By 1; 6 or so, children, like adults, can take different perspectives on the same object, and so treat it in different ways, depending on the perspective they have chosen. With language, speakers can make their current perspective explicit through their lexical choices, as in (22) and (23).

- (22) a. *the cars vs. the polluters*
 b. *the dog vs. that animal*
 c. *our neighbour vs. the cellist*
 d. *risk-taker vs. accident-prone*
- (23) "Recyclers seek 'recovered fiber', but toss 'wastepaper' in the trash"
 [Headline, *Wall Street Journal*, 2 July 1996]

Children begin to display the ability to take different perspectives on objects and events from early in their second year (Clark, 1997; Clark and Svaib, 1997). At first, they rely on non-linguistic expressions, using actions and gestures, as when they pretend to drink from an empty cup (at 1; 3), and even from a block standing in for a cup; moving a hand over their hair to enact combing (at 1; 4), listening to, or holding a block or even a spoon across their ear to enact using a telephone (at 1; 2 onwards) (see Carter, 1978). When they add words, a child may mark a shift in perspective by, say, labelling a wastepaper basket as *basket* on one occasion, then, holding it upside down over his head, as *hat* on another (1; 7) (Clark, 1997).

Children start on pretend-play early too, again at or just past the end of their first year. They shift perspective on themselves to the roles taken and on the objects involved in their play. They initially enact familiar activities, often with the collaboration of their parents, and then move on to acting 'as if' with respect to both roles and props (Bretherton, 1989; Farver, 1992; Garvey, 1990; Harris and Kavanaugh, 1993; Leslie, 1987; Mitchell, 2002). Again, as they add language to their pretence, the nature of their play becomes more explicit, and later often also includes stage directions interpolated into the turns at play (Farver, 1992; Garvey and Kramer, 1989; Giffin, 1984; Lodge, 1979; Martlew et al., 1978; Sawyer, 1997). Their earliest pretend-play is conveyed with actions and gestures, as when a very young child lies down on the floor and closes her eyes in pretending to sleep (1; 3), or when a child raises an empty fork to his mouth, pretending to eat (1; 10). Then they combine these actions with language, as when a child cups one hand while reaching for the milk-jug and saying *milk* (1; 5), or covers a doll with a face-cloth (for a blanket) and says *sleep* (1; 9) (examples from Carter, 1978; Clark, diary observations).

3.1. Conceptual perspective

In the development of conceptual perspective, children start out from their early apprehension of physical perspective in space. They begin to point at objects and events that catch their attention sometime between the ages of 9 and 12 months (Escalona, 1973; Rheingold et al., 1976), and expect the adult to look. By 1; 0 to 1; 4, they both point and check on whether the adult is looking as well. In general, they use such pointing to elicit labels and to make requests (e.g., Bates, 1976; Kelly, 2014). Between 1; 0 and 1; 6, they start to show things to others, but can't always take the other person's spatial perspective fully into account. For example, when asked to show a picture pasted inside a mug on the bottom, they will tilt the mug towards the other person—but the picture is then upside down for that person. And they show an open book to another in the same way, rotating it through the vertical plane towards the other (Lempers et al., 1977). But by age 2; 0, small children can show book pages to others by rotating the book through the horizontal plane, and thereby coordinating the orientation of the picture on the page and the other's upright orientation for viewing. By 1; 6 and on, children can make dolls 'face' whatever they are meant to be looking at, and by 2; 0 can organize toys and other objects in a parade, placing them all in a line, facing the same way (Levine and Carey, 1982; Clark, 1980).

As children get older, they mark spatial perspective with words as well, to encode orientation, direction, and motion. Common early motion verbs include *put, go, walk, run, fall*, and *climb*; early prepositions to mark relations in space: *in* and *on*; verb particles to mark direction: *in, on, off, out, up, down*; and a few adverbs like *upside-down* and *outside*. They also start to produce a few deictic terms—*here, that, I, you*—from around age 2; 0 as well. Deixis requires that the speaker keep track of where the other is, as in *here* (located at/near the speaker) vs. *there*; *this* (object at/near the speaker) vs. *that*, or *come* (motion towards the speaker) vs. *go* (see Clark, 1978).

They begin to use words to mark different conceptual perspectives on things from as young as 2; 6. For example, 2-year-olds can identify an appropriate referent for the word *cat* and then *animal*, or for *animal* and then *cat*, when asked questions about characters on a page of a Richard Scarry book, where in each case there is a difference in the *level* at which the referent is identified. Children this age can do equally well with animal and certain profession terms: they can find referents for *bear* and then *mailman* on the same page, or the reverse, where there is a difference in the *domain* where the referent is located. In short, as long as 2-year-olds know the relevant vocabulary, they display little or no difficulty in understanding and producing two (or more) terms for the same referent, thus demonstrating that they can already take different conceptual perspectives on a single entity (see Clark and Svaib, 1997).

They may start to mark different conceptual perspectives spontaneously with their word choices well before age 2, as in (24)–(26) (from Clark, 1997):

- (24) D (1;7, looking at his bowl of cereal): *food*.
(then, looking at his own and his parents' bowls): *cereal*.
- (25) D (1;7, doing his zoo-animal puzzle, named each animal as he removed it):
Lion, tiger, monkey, zebra... (then as he put back the last one): *Animal*.
- (26) D (2;1, when his mother asked what he was usually called)
Mother: as you 'lovev'?
D: No, I 'Damon', I 'cookie', I 'sweetheart! Herb 'lovev'. (H = father)

And by age 4, children can take someone else's perspective, as in the comments in (27)–(29) (from Clark, 1997):

- (27) D (3;11, in a wild animal park): *ANTS think people are walking trees*.
- (28) D (4;5.27): *You know what hours are for giants from other people? Years! They have twelve years every day!*
- (29) D (4;6.27): *For a GIANT, a year is just a hour, and a hour is just a minute!
... And for an ANT, a hour is a year!*

In summary, children first display skill in spatial perspective-taking from around 1; 6 to 2; 0, showing that they have grasped what another person can and can't see. They enlist language to mark conceptual perspective equally early, beginning before age 2, and start to produce more than one term for a particular referent. They can also shift from one perspective to another within and across lexical domains from age 2 onwards. And by age 4, they can talk about the perspectives of others and extrapolate to such different domains as ants and giants.

3.2. Pretend play

In the emergence of pretend play or make-believe, one-year-olds begin with actions on themselves in play, as when they pretend to sleep, to eat, to drink, often with a smile or laugh, and many re-iterations of the enactment. They then start to treat one object as if it was another, for instance when placing a face-cloth over a doll for a blanket; using a bowl as a bath for a

teddy-bear; holding a spoon to the ear as a telephone; running a block along the table's edge for a car. And they then progress to having a toy or doll carry out familiar actions such as sleeping, eating, drinking, or bathing, using props (e.g., Church, 1966; McCune-Nicolich, 1981; Piaget, 1951). By 1; 6 or so, children start to add words to these enactments, as in (30)–(33) (from the diary notes of Bowerman and of Clark):

- (30) C (1;6, lying down on the floor): *night-night*.
 (31) D (1;8, pushing block along floor): *vroom-vroom*.
 (32) D (2;2, sitting on cushion on floor): *my plane*.
 (33) D (2;5, putting round magnets into small plastic pill-box): *here are pills*.

From age 2 or so on, children also start to do voices for dolls and toys in play, and, by age 4, upon being asked, they will do the voices for themselves in particular roles as well. Children produce age-appropriate and style-appropriate talk for adult roles, the roles of younger children, dolls, and puppets, from age 3; 9 onwards. For example, they produce consistently shorter utterances when speaking to younger addressees and when speaking as younger children; they produce more baby-talk forms to and for younger speakers; they also rely more often there on present-tense forms, and use names as vocatives more often to younger addressees. They also make use of more repetition in speech to younger addressees, ask more questions there, and use more imperatives there too (see Andersen, 1991; Sachs and Devin, 1976).

When children produce stage directions in their pretend-play, they interweave them with utterances that belong to the roles being enacted (Lodge, 1979; Martlew et al., 1978; Sawyer, 1997), as in the extracts in (34) and (35):

- (34) A (4;0): Where are you going tonight?
 <You said you were going to the ball.>
 B (4;0): I'm going to the ball.
 A: Is the Prince going too?
 B: Yes, and I'm going with him.
 <You got cross and argued about it>
 A: Oh no you're not -- I am.
- (35) James (5;6): Wah wah. I've killed everything.
 Dave (5;0): <But you was wrong. Turtle was alive.
 And you said: 'Ah I'll cut your head off'>

Pretend-play depends on the ability to shift perspective on oneself, on the (agent) role being taken on for the occasion, one's actions, and on the specific prop(s) available, as well as on any other participants in the play. But there need not be any physical similarity involved here. Any child can be assigned a particular role in play, and although some props may be functionally similar (a face-cloth and a blanket for a doll, say), most bear no such relation to the recategorization in the particular play scene being enacted. Shifts in perspective appear in young children's spontaneous speech to mark changes in **conceptual perspective**. They can be elicited in comprehension and production as young as age 2. Adopting different conceptual perspectives, and then marking these in talk, is integral to pretending (acting as oneself or as someone else, with props), which also depends on shifts in perspective. Both conceptual perspective and pretend-play build up skills in children that provide a foundation for figurative uses of language. That is, from age 2 or so on, children can 'view' themselves, other people, animate toys, and all kinds of props as instances of something else within pretend- or make-believe play.

4. Figurative usage

What criteria do we need in deciding whether a particular linguistic usage is figurative? Consider the case of the one-year-old who, on one occasion, picked up a small wastebasket, inverted it over his head, and called it a hat. First, the speaker should know the conventional meanings of both terms involved (i.e., *wastebasket* and *hat*). Second, he should be able to distinguish at least two distinct perspectives on the intended referent (e.g., when to consider it as a wastebasket and when a hat). And third, he should assume that one perspective is basic (here, the identification of the referent proper as a wastebasket). Notice that these criteria hold for the language children use for marking conceptual perspective and for pretend play. But they are also fundamental for figurative usage in that the basic referent is the target the speaker is talking about, and the metaphor itself is the vehicle or source that is applied to that target (see Holyoak & Stamenković, in press). Is there also some further criterion we can identify to distinguish figurative uses from shifts in conceptual perspective taking and from pretend-play uses?

Before children make use of language to mark different perspectives, they can already treat many objects in different ways, as if they belong to two (or more) different categories. Consider a child who eats with a spoon on one occasion, and on another makes the spoon 'walk' across the table on the tip of its handle. Or a child who washes her face with a face-cloth on one occasion, and uses the same face-cloth as a doll's blanket on another. In short, the ability to take different perspectives is intrinsic to children's earliest pretend play, in the second year. Both for pretend play and for any figurative language use, though, we clearly need the third criterion too: Assume that one perspective is basic. That is, the lexical meaning carried by the word chosen selects the perspective that would conventionally be used in referential expressions containing that word.

Children must be aware of this in pretend play: they know that a spoon is not a telephone, but as a prop it can serve as a telephone. With similes, children need to observe the three criteria listed and make explicit comparisons based on degrees of similarity. With metaphors, the similarity involved appears to be more abstract, with the speaker expecting the addressee to be able to infer the basis for the implicit comparison being made (see further [Holyoak and Stamenković, in press](#)).

4.1. Early figurative meanings

Let's consider what *could* count as figurative in children's early usage. One candidate might be the early over-extensions of words in production, uses that are particularly common up to age 2; 0 to 2; 6 (see, e.g., [Winner, 1979](#)). For instance, children commonly over-extend a word like *dog* from dogs to other small mammals such as cats, rabbits, sheep, and squirrels as well. Notice that when they do this, they typically haven't yet mastered the words *cat*, *rabbit*, *sheep*, *squirrel*, etc., in production, even though they may understand these words when heard from another ([Clark, 1973](#); [Thomson and Chapman, 1977](#); [Gelman et al., 1998](#)). Such over-extensions all have a perceptual basis, a shared similarity with the original referent of the term being over-extended ([Clark, 1973](#)). This suggests that the over-extension of a word like *dog* is the outcome of a communicative strategy on the child's part, and not a figurative use.

Another candidate might be their lexical innovations, words coined for the occasion to express a specific meaning, as when one 2-year-old said, *I want a fire-dog*, in asking for a dog as a pet. But notice that this again is not actually a figurative use. Rather, the child has constructed a novel noun–noun compound to capture the particular meaning she wanted to convey on that occasion, namely 'a dog like the one recently found at the site of a local fire'.

Further candidates that have sometimes been proposed are cases of polysemy (multiple meanings of the same word) and homophony (a word with two different meanings, pronounced in the same way, distinguished in writing by their spelling). But the meanings of such terms are typically learnt like any other conventional meanings. Take the example of *head* (one's head as part of one's body; the head of a bed, of the class, of the school, of the government, etc.). Each of these meanings is typically learnt as is. So, while certain extensions may have been figurative when they first emerged in the language for some speaker (the head of a bed, say), for a later generation, they are simply learnt just like an idiom or a fixed phrase in the language. At the same time, some new, on-the-spot, extensions may be figurative. Consider the utterance: 'Do a Chomsky for me'—meaning 'open the car door for the passenger', based on an action observed by the speaker some days earlier. Or, from a newspaper headline: 'The Ferrari-woman', used to refer to a woman who wished to be buried in her Ferrari. But the literal versus figurative status of such expressions is often unclear.

Might there be a rough continuum from literal to figurative in language use? We might consider whether the list of forms in (35) emerge in sequence during acquisition, or whether specific instances instead enter piecemeal:

- (35)
- a. conventional word meanings
 - b. 'dead metaphors' and idioms (also with conventional meanings)
 - c. lexical innovations (nonce meanings, clear in context)
 - d. shifting senses (*a DVD is round/is an hour long; a film an hour long, and a round ball*)
 - e. words with only partially-assigned meanings, often lasting into adulthood (e.g., tree names vs. ability to identify the referent trees and/or leaves)
 - f. pretend-play language use
 - g. metonymy (*the helmet* for 'the man wearing a helmet')
 - h. simile (*a sky like a ruffled pond*)
 - i. metaphor (*the garden was a jungle*)

plus other figurative (non-literal) uses such as hyperbole (*he's the happiest person in the world*) and irony (*I just love cold stew*).

When do children start to understand and make use of figurative options? Notice, for example, that they can extend already-available meanings via metonymy, using a term for a part that is associated with the whole, from as early as age 3, as in (37) (from [Falkum et al., 2017](#)):

- (36) Adult: Which game do you want to play?
Child (3;6): *The marbles*. (i.e. the game that involves marbles)

They also produce some spontaneous similes quite early on, as shown by the examples in (37)–(41) (from [Winner, 1979, 1988](#); [Piaget, 1951](#)):

- (37) A (2;3, of the letter J): *This looks like a cane*.
(38) S (3;4, of the telephone): *The phone is singing*.
(39) A (3;5): *A wheel looks like a Q*.
(40) J (3;6, of sand-ripples on beach): *It's like a little girl's hair being combed*.
(41) A (4;7, of paper circles): *Dese are apples falling*.

And they produce some potential metaphors, again from quite early on as shown in (42)–(46), that are also candidates for pretend-play (examples from [Carlson & Anisfeld, 1969](#); [Clark, diary](#); [Piaget, 1951](#); [Winner, 1979](#)):

- (42) R (2;5, climbing over Fa and Bro, wrestling on floor, as he slid down the other side): I'm a big waterfall.
- (43) A (2;6, tying tape round stem of microphone): *microphone need a bib.*
- (44) D (3;3.22, points to his eyes, wide open): here are my lights. now they are on. (then closed his eyes): *now they are off.*
- (45) J (4;7.22, of a thin piece of grass inside a wider stalk): *look, it's spectacles in a spectacle case.*
- (46) A (4;9, of a red balloon attached to a green tube): *de apple on de tree.*

Early uses like these suggest a possible continuum in acquisition from earlier literal uses to some figurative uses. With their early over-extensions, children rely on a communicative strategy of using a familiar word to fill a gap, and, in so doing, over-extending that word for just that occasion on the basis of perceived similarity (e.g., when they use the word *dog* to refer to a cat or a squirrel). Such over-extensions vanish as soon as children acquire the requisite words, here *cat* and *squirrel*, in production. Indeed, children produce very few over-extensions after 2; 6. They typically ask what the word for something is, with a 'what's that?' question instead (Clark, 1973). With terms that appear in 'dead' metaphors (e.g., *the head of the bed*), children appear to learn the conventional meanings directly, so these are not perceived as reflecting extended uses. Much the same holds for some idioms (e.g., *it's in the bag*, *it's raining cats and dogs*) where children acquire the conventional meanings without at first realizing that these expressions are idioms. With lexical innovations, children coin new terms to fill gaps in their vocabulary. So these do not constitute any sort of figurative extension of meaning either: their coinages simply pick out the object or event that the child-speaker intends to refer to on that occasion, as in (47) and (48) (from Clark, 1978, 1982):

- (47) A (2;3): *house-smoke* (= from chimney) vs. *car-smoke* (= exhaust)
- (48) J (2;8): *Daddy is pianoing* (= playing the piano)

Young children can also use the occasional novel compound apparently metaphorically (Gottfried, 1997). When shown a picture of shells with black and white stripes, they may construct a novel compound like *zebra-shell* to refer to such a shell. That is, they use the modifier or initial term in the compound in an apparent metaphor for talking about the relevant entity. The metaphor here would lie in the child's choice of the term *zebra* to refer to the stripes on the shell, but this could simply be the child's only way to express the meaning 'striped', where *zebra* fills that lexical gap.

Language in pretend-play presents a more complex case, where word use identifies the relevant perspective to be taken, as in *I'm the daddy* in a role-assignment, and as in *This is my cake*, said as the child holds up a block. That is, both roles and props used to represent elements in their play are labelled and thereby re-categorized from as young as 1; 8 or so onwards. But are such uses in pretend-play figurative? Consider utterances like those in (49).

- (49) a. *I'm the mother.*
b. *You're the driver.*
c. *I'm the prince.*

Are these metaphoric? This seems much less clear. Such utterances typically occur in children's stage directions in setting up pretend-play situations (e.g., Lodge, 1979; Sawyer, 1997), and they involve a variety of roles, typically human, but not always. Assigning to a child the role of Father Bear, say, or the role of the baby in a pretend family, certainly re-categorizes that child for purposes of the play. But do such assignments involve any figurative usage? Notice that, unlike in the case of a simile or a metaphor, there is no similarity involved between the target (here, the child) and the source of the potentially figurative expression (here Father Bear) (see, e.g., Pouscoulous, 2014). So these are also unlikely candidates for figurative usage in children.

Likewise, in early uses of potential metonyms, 2- and 3-year-olds may actually be using the terms to refer to the objects in question because they do not yet know that the metonyms are metonyms. (Indeed, adults often do not recognize idiomatic metonyms as metonyms, just as they don't recognize established metaphors, e.g., *the head of the bed*, as metaphors.) For example, 2- and 3-year-olds typically use expressions like *a Lego* to refer to a single Lego block as they build a Lego wall. Or they will produce an utterance like *Let's play farm*, as one child picks up a plastic cow, here using the term *farm* to refer to play with all kinds of farm animals. Only later do children become likely to recognize metonymic uses as extensions of literal meanings, as in the forms in (50) (from Falkum et al., 2017):

- (50) a. The helmet rode away [= person wearing a bike helmet]
b. The moustache sat down [= man with a moustache]

Similes require children to have mastered the relevant syntax for their expression, in order to make explicit comparisons using *is like* or *looks like*, as in (51) and (52) (from Winner, 1979; Piaget, 1951):

- (51) A (3;5): *A wheel looks like a Q.*
- (52) J (3;6, of sand ripples on a beach): *It's like a little girl's hair being combed.*

Metaphors require that children be able to shift perspective as they move from the target (the starting point) to the source (the linguistic expression for what the target is being compared to), but early metaphoric uses may rely on gestures alone to indicate the target, then add the source in words. Is this, in fact, a simpler way to convey a metaphor, as in the potential case in (53) where the child gestures to the target first, his eyes, and then offers a linguistic expression as source?

- (53) D (3;3:22, points to his eyes, wide open): here are my lights, now they are on.
(then closed his eyes) now they are off. [Clark, diary]

Hyperbole typically involves superlatives of some kind (often a later acquisition) that are not intended to be taken literally, as in (54) and (55):

- (54) D (3;6:14, appearing with his Father's shoes)
Father: Where were my shoes?
D: *upstairs in the logs.* (= beside the fireplace)
Father: I looked all over for them last night.
D: *if you looked all over for them, you would have found them.* [Clark, diary]
- (55) Lola (to granddaughter): F, because of you and M, I am the luckiest person ever.
C (4;9): *No Lola, you can't say that because you weren't there in the 'ever'.*
Lola: Well okay then, I am the luckiest person in the world.
C: *No Lola, you can't say that because you don't know all the people in the world.*
Lola: Okay then, I am the luckiest person in this country.
C: *No Lola, other people might have better grandchildren than me and J.
You don't know. All you can say is that you are the luckiest person here
and now.* [JJC, pc]

In exchanges like these, children appear to be thinking hard about the logic behind terms like 'everywhere' and the superlatives 'luckiest ever', 'luckiest in the world', and 'luckiest in this country'. In much the same way, children make careful choices of labels for the perspective they take to be relevant in context—when they compare people to trees, ants to giants, and hours to years (see examples (27)–(29)). In a case like that in (56), for instance, the child rejects a perfectly appropriate adult label because it doesn't capture the perspective the child favours on that occasion (see also Clark, 1997):

- (56) Mother: Come and put on your shoes.
M (4;5): *They are not shoes. They are sandals.* [Falkum, diary notes]

To return my earlier question, Do children acquire different figurative options in order, developmentally? The evidence at this point suggests that the answer appears to be 'No, not really.' Some extended uses of conventional meanings emerge quite early, in pretend-play, and build on pre-linguistic actions and gestures. Here some of the language used might be called figurative—the re-labelling of props, for example—but this in fact simply marks the perspective being taken. The stage directions children produce as they assign roles and specify the actions to be carried out are not figurative, any more than is the content of the utterances children then go on to produce within their play. These utterances are literal within their pretend-play, just as they would be in the theatre.

5. Conclusion

Children explore myriad ways of using language as they move from one word at a time to more complete and more complex utterances. They use language in everyday exchanges, requesting, describing, denying, learning to be co-operative, setting up conceptual pacts about what to call X, and taking different perspectives on the events they observe, talk about, and remember. They use language in pretend-play as they enact roles and events familiar from real life or from stories they've been read, as they give more and more elaborate stage directions, and as they enter and exit from their play. And as they get older, they explore indirect as well as direct expressions of attitude and opinion.

All this is displayed in a long-drawn-out line of development in children's language use—as they go from learning the conventional meanings of words, phrases, and idioms in the language they hear from others, and as they learn how to use words to mark different perspectives on the same object or event. This in turn opens a door to extended uses of conventional terms to convey something more than what is actually said — with metonyms, similes, and metaphors, as well as with devices like hyperbole, sarcasm, and irony. But the specific course of development for any one of these devices at this point appears somewhat murky, leaving us with many questions as yet unanswered. We still have a great deal to learn about children's course of development as they come to use figurative language.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.pragma.2018.12.012>.

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