Early Childhood Educ J (2010) 38:57–64
DOI 10.1007/s10643-010-0386-0

Unearthing Metaphors: Figurativeness in Teacher-Child Talk About Soil and Related Matters

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Published online: 7 April 2010

Abstract This article reports an empirical study of an important but under-studied feature of learning practices with young children: the use of metaphors and other kinds of figurative language. The data consist of video-recordings of children (3–5 years old) and their teacher engaged in thematic work about soil. The analysis revealed that the teacher and the children use a rich repertoire of communicative tools of a figurative kind to carry out a number of important functions, such as describing, explaining, and visualising phenomena. Some important questions to pursue in future studies of young children's learning are proposed.

Keywords Language · Speech · Metaphor · Emergent science

Introduction

How learners use previous experience in making sense of novel observations lies at the very heart of education as a theoretical and practical endeavour. One strategy that learners use when encountering and trying to describe phenomena that are in some ways difficult to grasp is to use the language they do possess in a figurative way even though, strictly speaking, it does not apply. This fundamental principle in sense-making implies that we as analysts should attend to metaphors and other kinds of figurative speech when analysing interaction between teachers and children in educational settings. From having been considered merely an ornamental feature of language, metaphor and other kinds of figurative language have, in recent years, been reconsidered in the theoretical literature (e.g., Gibbs 2008; Goatly 1997; Knowles and Moon 2006). It has been argued that these kinds of tools may fill important functions in making sense of various phenomena. This realisation has prompted some empirical research into learners' use of figurative speech in educational settings, particularly in regard to older children (Bills 2003; Cameron 2002, 2003). However, studies of figurative language use in early childhood settings are still rare. The present study is an attempt at starting to fill this gap in our knowing. Is figurative language also used in communicating with young children, in the present case, in emergent science (Siraj-Blatchford 2001) activities, and if so, what kinds of figurative speech are used and how are they managed (i.e., used, followed-up on, negotiated) in teacher-child talk? These are the issues dealt with in the present study.

The function of metaphors as resources for 'bridging the gap' between what the child knows and sees in her everyday life and what she is expected to learn in her institutional schooling is particularly accentuated in the case of scientific knowledge. Such knowledge is often far removed from the concrete lived experiences of the child. Hence, the use of metaphors is unavoidable. Consider, for example the following conversation between four-year-old children and their teacher about what will happen to batteries if used for too long:

C2 They will be flat
C [Sam] They won't be flat they'll just be sort of round They won't be like flat [gestures with hands]

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T No, they won't change shape will they? They won't be flattened down. They'll still be round won't they?
C They won't be like a piece of paper
C4 They won't be like a flat tyre
T No they won't, so what do we mean when we say they're flat?
C They won't work. (Fleer 1995, p. 325; italics omitted)

The child makes sense of the functioning of a battery in terms of something else. The word 'flat' works as a metaphor. The ensuing discussion with the teacher and the other children is an attempt at clarifying how this metaphor should be understood in this particular case, i.e., in what sense will the battery be 'flat'? This kind of metaphorical reasoning can be found in empirical excerpts in many studies of children and science. However, as in Fleer's (1995) case, these tend not to be interpreted and studied more systematically in terms of metaphor or figurativeness. This is not meant as a critique of existing research on children's science learning. There are many important questions to pursue in this domain. The point is only to illustrate and argue for an additional and under-appreciated feature of this learning that needs to be considered.

Studies of Figurative Language in Talk Between Teachers and Children

For a long time, studies on children and metaphor were conducted through asking children to interpret separate utterances out of context and to show their understanding through explaining or paraphrasing these (Winner 1988). However, much criticism has been levelled against this research (e.g., Cameron 1996; Gibbs 1994; Knowles and Moon 2006), claiming that metaphor, like other language, is best understood in ongoing talk, and that explaining or paraphrasing utterances is a different and much more complicated matter from being able to use and understand metaphors in communication. Against this background, Cameron (2003) has suggested a new approach to studies of children and metaphor. According to her, we need to study what she refers to as 'the prosaics of metaphor' (see also, Pramling and Pramling Samuelsson 2008). This term refers to an understanding of metaphor (and other kinds of figurative language) as a feature of ordinary language use. This means that we must also study metaphor in its "most ordinary" (Cameron 2003, p. 7) guises, for example, in the everyday talk between teacher and children in early childhood education.

In a recent study, Jakobson and Wickman (2007) analysed the role of children's spontaneous metaphors in learning science. Children aged approximately 6–8 years (in grades 1 and 2) were studied. Children used metaphors frequently in their talk. One of the functions that metaphors filled here was as a resource for making factual observations. For example, when learning about buds, children used metaphors such as 'hair', 'caterpillars', and 'worms' (ibid.). The metaphor 'hair', Jakobson and Wickman argue, was used "to describe the stigmas of the bud", hence "as a factual descriptor of the traits of the bud, saying something of their general appearance" (p. 276; italics omitted). "In exceptional cases metaphors could also be a hindrance to children's communication and undertakings" (p. 278). This happened when a child introduced a metaphor based on personal experience or interest not shared by the other children in the group.

This study was, however, conducted with older children in a school setting. There are few empirical studies of young children and metaphors in preschool (Pramling and Pramling Samuelsson 2008). A recent study (Thulin and Pramling 2009) dealt with a particular kind of metaphorical language, so-called 'anthropomorphic speech', i.e., speaking about something non-human in human terms. The authors analysed young children (4–6 years) and their teacher when engaged in science activities in a preschool setting and found that anthropomorphic speech was frequent. The vast majority of the utterances of this kind were made by the teacher (104 of the 128 utterances identified in the data). At times the children were found to align with, i.e. respond to, such speech in the same manner, but at other times they objected to or questioned instances of such speech. Hence, it was concluded that the kind of metaphorical speech called anthropomorphism was primarily a feature of the teacher's discourse, and that the children appeared to be communicatively sensitive and attentive.

While scholars have produced more knowledge about figurative language use in educational settings with older children, pupils and students in recent years (e.g., Cameron 2002, 2003; Corts 2006; Jakobson and Wickman 2007; Littlemore 2001), we have little knowledge of this issue in relation to younger children in preschool settings. Since we now understand that figurative language is not merely ornamental but has more important functions in learning and understanding, it is time to make an empirical study of this feature in settings with younger children. This is the rationale behind the present study. What kinds of discourse practices of a figurative kind do children participate in in emergent science activities?

A Sociocultural Framework

From a sociocultural perspective (Säljö 2000, 2005; Wells 1999), learning is considered in terms of the response of the individual to the communicative and cognitive challenges he or she is facing. In responding to such challenges, individuals make use of, and appropriate new, tools (Vygotsky 1978) of various kinds. A particularly important tool-kit in the child's development is language (Nelson 1996). "One of the foundational principles for describing learning in a sociocultural perspective", Säljö (2000, p. 73) elaborates, is "the ability to see something new as an example of, or as a variant of, something already familiar. And we develop this ability through learning to master intellectual tools" (my translation). Figurative language can be considered tools for this work of relating the novel to the more familiar (previous experience, knowledge). From a sociocultural perspective, what kinds of tools learners are introduced to, what they use and how they use them are of particular interest (Säljö 2005). Communication is seen as the mechanism through which people learn and develop (Wells 1999). This perspective implies an interest in what communicative and cognitive challenges children face and how teachers help children to take on these challenges in educational settings.

Methodology: Empirical Data, Analysis, and Ethics

Figurative language is considered here to be a family of language practices, including metaphor, simile, analogy and others. A metaphor states that something is something else that it cannot literally be (for extensive overviews of metaphor and related use of language, see Ortony 1993; Gibbs 2008). Hence, in a metaphorical expression, words are used and combined in a way that does not strictly apply. This means that analysing metaphors means identifying a 'discrepancy' or 'incongruence' between what is said and what is referred to (Fichtner 1999). For example, saying 'I see what you mean' is metaphorical, since what someone means is not, in a literal sense, visible. Hence, 'see' in this instance would be considered metaphorical. That an utterance is considered metaphorical from the analyst's perspective does not presume that it is perceived in this way by the speaker him- or herself. In fact, as Mercer (2000, p. 79) argues, "metaphors are such a normal and pervasive feature of our use of language that we often do not realize we are using them" (cf. Tomasello 1999). A simile differs from a so-called metaphor proper in making explicit its comparison through communicative markers such as 'is like' or 'similar to' (Glucksberg 2008). Another important form of figurative language is analogy. An analogy states that A1 stands in relationship to A2 as does B1–B2 (Miller 1993). One example would be 'pig is to boar what dog is to wolf'.

For anyone with an interest in learning and understanding, it is important to analyse figurative language as a communicative practice. Hence, the point is not simply whether metaphors and other kinds of figurative language are used, but how they are used, 'taken', followed-up and managed in actual talk. While figurativeness is primarily concerned with talk (i.e., verbal language), it is important to realise that it is not communicated only verbally (Pramling and Asplund Carlsson 2008). It may also, for example, be communicated by gestures (cf. the excerpt from Fleer 1995, above). Roth and Lawless (2002) refer to kinds of gesture as 'metaphorical gestures', i.e., "those gestures that are used to denote abstract entities (concepts) and processes that are used for explanatory purposes but are not available to perception" (p. 290). One example would be to gesture through pointing upwards to indicate 'higher order thinking', since thinking is not a physical entity that can be higher or lower.

The empirical data for this analysis are derived from video-recordings taken in a preschool group which was followed over a period of 3 months (7 occasions) while working on the theme of 'soil'. The purpose of the data collection was to generate data for studying thematic work in elementary science with young children. Hence, the purpose was not formulated or communicated to teachers or children in terms of figurativeness, as will be analysed in this particular study. Eleven children (seven girls and four boys, aged 3–5 years) and three teachers participated in the study. For the reader's information, every child's age is given (as years months) but no analysis is made on the basis of age in this study. All data (app. 5 h) were transcribed verbatim. This amounts to over 5,000 utterances. The excerpts analysed in this study were translated from Swedish by a professional translator in order to be true to the speech of the children and the teachers. However, translating metaphorical language may be inherently difficult. In order to clarify an example of metaphoricity, at times unconventional, literal translations are used to communicate the original utterances. This difficulty of translating metaphorical language may also be used as an analytical aid. Consider the following example. In Swedish, signalling danger is typically verbalised as 'se upp'. Conventionally, this expression would be translated into English as 'look out'. However, literally, 'se upp' would be 'look up'. In this way, the visual and spatial character of the metaphor becomes visible as well as how the metaphorics differ in the two languages (the 'direction' of the danger) (Pramling 2006).

The ethical guidelines of The Swedish Research Council have been followed. This means that all participation has been voluntary. The caretaker of each child was asked to

give their written consent to letting their child participate in the study. All participating children and teachers were given pseudonyms in the text.

The questions posed in this study are: (1) Is figurative language used in these emergent science activities? If so, (2) what is the repertoire of figurativeness in these situations, (3) is it used merely ornamental or does it fill other functions and, if so, what functions, and (4) how is such talk managed in teacher-child interaction?

Metaphors, Similes, and Analogies in Teacher-Child Interaction

Having gone through the entire transcript, it is evident that figurative speech was used in teacher-child interaction in these situations. A number of different kinds of figurativeness were identified: analogies, similes, gestural metaphors, and verbal metaphors including animistic and anthropomorphic ones. It became clear from an analysis of these language practices that these do not merely fill ornamental functions. In the following presentation of the results, the repertoire of figurative speech will be exemplified and analysed in terms of what interactive work these do and how they are managed in talk between teacher and children.

The background of the following excerpts was an activity where soil was dug up, put in a basket and taken into the preschool. Teachers and children then spoke about, investigated, sorted and categorised the soil into different piles.

Analogy

Speaking about and drawing what they found in the soil, a child mentions a woodlouse. In talking about this finding, the following conversation ensues:

282 Student	Have you made holes in the jar (lid of jar)?
283 Teacher 2	No (inaudibly)
284 Teacher	They should survive Eddy said. (Eddy belongs to the local Nature School.)
285 Anders (3.5)	Woodlice, woodlice
286 Teacher	(bending down to Anders) Did you find some too?
287 Observer	They should absolutely not have any holes in the jar—they dry up
288 Teacher	No, it's like a room (illustrating with her hands) Eddy said. They can be in a room like we can be in a room, so much air. (observation 5)

Several woodlice have been placed in a jar. The issue of whether there should be holes in the lid of the jar in order for the woodlice to survive is raised. The observer suggests that the woodlice will dry up if there are holes in the lid. The teacher (in turn 288) follows up through an analogy. Like we humans can be in a room, so the woodlice can be in a jar, there will be enough air. In her analogical reasoning, the teacher also uses a metaphorical gesture making air visible as something enclosed (see also, below).

One of the children (Evelina) has spoken about there being moles in the ground. The teacher reminds her of this previous occasion and tries to get her to develop her thoughts about it:

708 Teacher	And then you said this, I think, that the moles put sticks in the leaves and then they eat worms, of course, and spiders. All animals eat them (bending forward). That's what you told me. It was very interesting what you said. That the worms and moles live down in the earth and work. What do they do when they work?
709 Evelina (3.2)	(Poking about in the soil) Well the moles don't work so much but I think the worms work, but I don't think the moles are working when they take up the soil like this (showing with her head)
710 Teacher	Yes, it is work when they… but what did you mean when you said work in?
711 Evelina	It's maybe when they dig up (showing with her body)
712 Teacher	But when mummy works she works at…(name of workplace), doesn't she, but a worm, what can they do when they work? They work underground you said and eat leaves
713 Anna (4.3)	(Nods). (observation 6)

In this exchange between teacher and children, the word 'work' comes up for negotiation. Returning to something Evelina said previously, the teacher (in turn 708) asks the child, "What do they do when they work?" Evelina replies by making a distinction between worms and moles working, saying that the moles "don't work so much" (turn 709). The teacher confirms that they are doing work, but asks Evelina to explain what she means by work (turn 710). Evelina suggests that it may be when they dig up (soil). The teacher concludes by using an analogy between what the child's mother does when she works and what the worms do when they work (turn 712). Hence, something presumed to be known by the child is referred to as a resource in figuring out what 'work' may mean in this context.

Similes

Inspecting the soil, one child (David) speaks about how it appears to him:

448 David (4.3) All this looks like chocolate (sticking a spoon in the soil)
449 Teacher You think so. (observation 2)

The child suggests that the soil looks like chocolate (turn 448). The teacher does not elaborate on this simile, only confirms that the child thinks so (turn 449). Perhaps the teacher senses that this expression will not carry the conversation beyond the obvious visual appearance, while the aim is to develop the children's understanding of what soil is and how it comes about.

One finding in the soil-sample was a dead snail. The teacher reminds one of the children of this:

702 Teacher Then you found a snail, a shell. You told us, didn't you, that the snail lay dead inside its shell? It was flat as a pancake.
703 Helen (4.4) You looked inside the shell, like
704 Teacher Yes, can you draw the shell and the snail? (observation 5)

The teacher reminds the child of this find and says that "it was flat as a pancake" (turn 702). Perhaps this simile can be seen as a kind of euphemism (as commonly applied when speaking about, e.g., death), i.e., to de-dramatise what is potentially disturbing.

The teacher picks up one of the objects found in the soil and asks the children if they remember what it is. Maria remembers that it was a seed pod:

68 Teacher Did I have it on my nose? (Holds it against her nose.) It doesn't work now. Now I can't put it on my nose because it's dried up (picking about with it) and brown
69 Maria (3.6) Why?
70 Teacher Well, why has it turned dry and brown, do you think, (bending down to Maria) when it was…
71 Maria Look somebody… (inaudibly, fiddling with her leaf)
72 Teacher When it was on the tree it was green
73 Maria (Takes something from the leaf, holds it up.) Look inside it
74 Teacher Yes, and now
75 Maria What's inside it?
76 Teacher Yes, what is it? (Turns to Maria.) Now it has fallen and now it has been lying on the ground and dried up. It's turned all brown (putting the seed pod down)
77 Stella (3.11) (Holding out a leaf by its stem) It's like a fir tree, isn't it?
78 Teacher Yes, it's turned out like that. And there are small holes in the leaf (pointing) and it's all dried up. (observation 6)

Speaking about a nose that has dried (turn 68) and how it used to be green on the tree but has now turned brown (turn 76), Stella comes up with the simile of saying that "it's like a fir tree, isn't it?" (turn 77). The teacher confirms the simile and rephrases it as "all dried up" (turn 78). In this way, the child makes use of a previous observation of a fir tree being brown. The teacher uses the opportunity to focus on the reason for the appearance; it is brown because it is dry.

Continuing to look at the objects dug up, they pick up a piece of bark:

104 Maria (3.6) It looks like a (holding up the piece of bark), it looks like gold shells
105 Teacher You think it looks like gold shells?
106 Maria Mm, yes it does. (observation 6)

Maria compares a piece of bark to "gold shells" (turn 104). The teacher follows up by asking her whether she thinks it looks like this. Maria replies by confirming this to be the case (turn 106). The teacher's response, asking Maria whether she thinks so may suggest that the teacher does not see this resemblance. The simile may not make sense to her and can thus not be elaborated further in the conversation.

Gestural Metaphors

Speaking about worms found in the soil, the issue of what the worms do in the ground is talked about:

251 Teacher Imagine how this little worm…it's working down here under ground. And works and works (pointing to the picture) and digs tunnels and digs tunnels. And up and fetches (pointing to the picture) and eats, breaking up the leaves a little
252 Child And?
253 Teacher Eats some leaves and then he poohs (marking the picture) and then a few leaves are left. And that's what happens, in the end the bacteria come along and eat them up. And everything turns into (making circular movements above the picture), turns into new soil. (observation 7)

They return to the issue of the worm working (see above). Trying to explain the principles of biological breakdown (decomposition) and the biological life cycle, the teacher uses a gestural metaphor (turn 253). Her circular movement visualises these abstract processes, which are not visible as such. In a sense, illustrating 'cycle' (a circular motion) in this way is to visualise the metaphorical notion 'inscribed' or conventionalised in the very word 'cycle' to account for this natural process.

Verbal Metaphors

At times, a metaphor used comes up for explicit negotiation between teacher and children. The following is an example:

279 Teacher	Then I think, shall we move the seeds Helen? (Moves the seeds a little way from the soil group.) Because the piles (of soil) have grown so I think we have to put them here in the middle (of the sheet of paper)
280 David (4.3)	No, they haven't grown at all. (He then looks at the seeds with the magnifying glass.) No, they haven't, they haven't grown at all
281 Teacher	No, what I meant David, you know (touching the piles of soil), I meant that there were only two in the beginning (separates a couple of piles) and then they did not take up all that much space, but then more came along. Now Maria has put three there, so there are more now, you see. (observation 3)

This exchange occurs when they are engaged in sorting what they have found when they dug up soil and took it in to scrutinise. In order not to mix the different things found (e.g., stones, leaves, roots), the teacher suggests they move the pile of seeds (turn 279), since the piles of soil have "grown" (and thus risk falling into the seed pile). David (in turn 280) objects that they have not grown. He then looks at the pile through a magnifying glass and repeats his objection to the teacher's suggestion. The teacher follows up on David's objection and explains what she meant by using the term 'grown' (turn 281). These different ways of taking the word 'grown' means that, while this is the same term to teacher and child, there are two concepts. The way the teacher uses the word 'grown' in this case is tricky since they are speaking about biological phenomena. Hence, it is easy to understand 'grown' as a biological principle rather than as the teacher intended, as referring metaphorically to an increase in the size of a particular pile (category).

After the finds have been sorted into various groups (piles), the teacher introduces the issue of labelling these groups:

346 Teacher	But listen, what do you think we should call this group (ringing round the leaves and cones)?
347 Elin (3.10)	The coneleaf group. The coneleaf seed pod group
348 Teacher	The coneleafnose group, shall we agree on that (Teacher 3 writes a sign)?
349 Children	Yes
350 Elin	Yes, 'cos it's a nose and a… and a hmm, and that one (pointing)
351 Teacher	But why did you think they belonged together?
352 David (4.3)	'Cos they are from a tree, aren't they (pointing to the leaf and cone group), and so is this (root and stick group) though they are not the same, are they (touching the roots)
353 Teacher 3	Don't touch them (lifting David's arm)
354 David	It's a bit more papery (pointing to the leaf and cone group) and it's a bit more tree-y (pointing to the root and stick group)
[—]	
357 Teacher	You think that this is a bit more tree-y (touching the root and stick group) and this is a little more…
358 Teacher 3	(Places a sign by the coneleafnose group.)
359 Elin	Leafy
360 David	And it's more cardboardy (pointing to the cardboard sign)
361 Teacher	But where do we find these on the trees then, what if we look (lifting up the leaves) at the trees and compare with leaves (correcting herself) the roots?
362 David	Found on all trees
363 Teacher	The leaves grow on the trees, don't they, have you thought about it? (observation 4)

When trying to sort and categorise the things dug up from the ground, the children suggest that cones, leaves and seed pods would go well together (turn 347). The teacher, not being content with the children grouping together different things without formulating some kind of principle for doing so, asks the children why they think these belong together (turn 351). David attempts to motivate this grouping by referring to the fact that they all come from trees, "though they are not the same, are they" (turn 352). In trying to make clear to the teacher what he means,

in what way they are not "the same", David (labelling the various groups of objects) says that the leaves and cones are a little more "papery", roots and sticks a little more "tree-y" (turn 354), and the cardboard sign more "cardboardy" (turn 360). In a sense, David uses familiar words metaphorically to explain in what way the objects differ to him. On the basis of familiar nouns, he constructs adjectives that describe the character of the different things to be categorised and labelled.

Animating and Anthropomorphic Talk

One thing found in the soil was a sticking plaster. This find stands out like a sore thumb throughout the duration of the thematic work about soil. In the following excerpt, when drawing, the teacher talks about this find with the children:

783 Helen (4.4)	I'll do the plaster (to the teacher)
784 Mina (4.5)	I'll draw the snail
785 Teacher	Mm. (to Helen) How do you think the plaster got there?
786 Helen	There was also someone who threw it away there
787 Teacher	There probably was. Does it really belong here? What do you imagine the soil thinks when a plaster turns up?
788 Mina	(Has stopped drawing.)
789 Helen	(Shakes her head.) Though it should be yellow, but it was really pink (holding up her felt tip pen. I'll take yellow (starting to draw)
790 Teacher	I see
[—]	
792 Teacher	(To Helen) What do you think the worm thinks when he crawls onto an old plaster?
793 Helen	Don't know
794 Teacher	You thought that the worm ate the leaves, didn't you, and maybe the nuts, but what do you think (happens) if he comes across a plaster?
795 Helen	(Lifts up her piece of paper and looks at the teacher.)
796 Teacher	Can you eat it, d'you think?
797 Helen	No (drawing again)
798 Teacher	It's rubbish, isn't it? (observation 5)

In turn 787, the teacher asks a child, "What do you imagine the soil thinks when a plaster turns up?" In this way, the teacher animates soil into an actor that thinks something, in order to make the children think about why the plaster does not belong in the soil (nature). In a somewhat similar vein, in turn 792, the teacher asks Helen what she thinks that the worm thinks when he (!) crawls onto an old plaster. By using terms that refer to human actions, the teacher helps the children to use their experience as a resource in making sense of, in this case, biodegradation and rubbish that cannot be broken down (is not biodegradable).

Discussion

In this study, it was found that teachers as well as children, even in the preschool years, *speak figuratively,* in this case when talking about a knowledge domain of science, as has previously been shown by Cameron's (2003) study in relation to science activities with older children in school. The use of a *rich repertoire* of communicative tools (Säljö 2000, 2005; Vygotsky 1978) of a figurative kind in teacher-child talk in the early years is in itself an interesting observation. A number of different kinds of figurativeness were found: analogy, simile, gestural and verbal metaphors including animistic and anthropomorphistic ones. Some of these language acts come up for *explicit negotiation* between the teacher and children (e.g., the example of 'grown'). In other cases, conversation proceeds without any recognition of the metaphorical nature of the expressions. As Tomasello (1999) has argued, through participation in social practices children appropriate the language conventions of their culture including the metaphors "embodied" (p. 190) in that language. In the excerpts and analyses it can also be seen how these tools are used to fill a number of *different functions*, such as describing the appearance of something and how it differs from something else (e.g., 'soil looks like chocolate' and the making of adjectives from nouns), explaining and visualising abstract notions (e.g., the excerpt of the jar as a room to breathe in and the work of worms in relationship to the work of the child's mother), and perhaps to de-dramatise potentially disturbing findings (e.g., the 'snail flat as a pancake'). This rich variety of important functions filled by figurative tools in the child's learning points to the importance of considering this feature of communication in early years education as well as in school. All these figurative acts in a sense allow the child to use his or her previous experience and language as resources in making sense of novel observations and issues. At the same time, learning to restrict the extent of one's categories is important in developing one's language (cf. 'over-extension', Clark and Clark 1977; Sylva and Lunt 1982). Hence, at the heart of all figurative speech lies the tension between similarity and difference, or in terms of the language of our knowing, between categorisation and distinction. Seen in this way, metaphors and other kinds of figurative speech (and gesturing) can be considered fundamental tools for learning and understanding. This is surely an under-studied

and, perhaps, under-promoted set of knowledge-building skills in the preschool years. Our knowledge, whether scientific, poetic or other, fundamentally builds upon these kinds of communicative tools (Pramling 2006), even if these are managed in different ways in different forms of knowing. In the present study, thematic work in the early years concerning nature, and more specifically soil, has been studied in order to establish if, and if so, how figurative language acts (principally verbal but also gestural) are used. However, the use of metaphors and other kinds of figurative speech in preschool settings is a white spot on the map. Historically considered ornamental but today recognised as important (Knowles and Moon 2006), this feature of our language use now also needs to be taken seriously in studies of (and work with) young children in various domains of knowing, not only emergent scientific ones. What kinds of figurative tools do children and teachers, respectively, use, how do they use them, and how are they managed in interactive work (i.e., followed-up on, negotiated, understood)? These are some important questions to pursue in future studies in the domains of children, language development and institutionalised learning and care practices.

Acknowledgements The research reported here was funded by The Swedish Research Council. The author wishes to thank Susanne Thulin for assisting with the empirical work.

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