Chapter 9
A Right to Know

The Positioning of Infants as *Knowers* in Educator-Infant Interactions

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Abstract A core principle of the United Nations Convention on the Rights of the Child (UN General Assembly, Convention on the Rights of the Child. United Nations, Retrieved from https://treaties.un.org/doc/Treaties/1990/09/19900902%20 03-14%20AM/Ch_IV_11p.pdf, 1989) is that children have the right to contribute to matters that concern them. The concept of agency is thus brought to the fore, affording children the right to participate in, and make meaningful contributions to, the contexts in which they live and learn. Previous research has identified how agency in infant-educator play can be collaboratively constructed through interactions which support intrinsic motivation (Degotardi, Varied perspectives on play and learning: theory and research on early years education. Information Age, Charlotte, 2013). In this chapter, this idea is extended by examining how educator-infant interactions afford even very young children the opportunities to express and obtain information (Article 13). Agency is positioned as a cognitive, as well as a motivational concept, with very young children having the right to be treated and interacted with as *knowers and thinkers*. This chapter takes the theoretical position that language plays a major role in the socialisation of children as knowers and thinkers, and therefore as agents who construct and contribute to their own and others' knowledge and understandings (Halliday, Learning how to mean: explorations in the development of language. Edward Arnold, London, 1975; Nelson, Language in cognitive development: the emergence of the mediated mind. Cambridge University Press, Cambridge, 1996). Drawing on data from a large research project which investigated the language environment of infant-toddler early childhood classrooms, the chapter illustrates how, through their experience with particular forms of talk,

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infants and toddlers are being afforded different opportunities to share and extend their knowledge. Language is thus simultaneously positioned as a tool *for* learning and a source *of* learning as it provides rich opportunities for infants to participate fully and capably in the knowledge culture of their infant-toddler room.

Keywords Children's rights · Infant knowing · Cognitive agency · Language learning · Educator questioning · Participation

Introduction

A core principle of the United Nations Convention on the Rights of the Child (UNCRC; UN General Assembly, 1989) is that children have the right to contribute to matters that concern them. This principle stems largely from interpretations of Article 12, which compels those responsible for children to "assure to the child who is capable of forging his or her own views the right to express those views freely". Accordingly, a large body of work examines children's right to a *voice*, to intentionally express their views and ultimately have a say in decisions that impact them. Each child is construed as "a social actor and powerful agent within their own context", with the ability and right to exercise meaningful change in their own lives (Odrowąż-Coates & Vucic, 2017, p. 47).

By ascribing social agency to children, the promotion of voice affords them a right to participate in, and engage with, the power structures that shape their everyday world. However, young children also contribute to their world in ways that extend beyond engaging in decision making. Less evident in the body of work on voice is reference to Article 13, which gives children "the right to freedom of expression … [which includes the] … freedom to seek, receive and impart information and ideas of all kinds" (UN General Assembly, 1989, p. 6). Inherent in this principle is the assumption that all children, including the very young, are capable of forming knowledge-based representations of real-world phenomena, and that they are able and motivated to share this knowledge with others. Children, it would follow, not only have a right to an opinion, but also a *right to know* and to share that knowledge with others.

The right to seek, receive and impart information draws attention to the ways that children make meaningful contributions to their knowledge culture. It positions children as *knowers*—as cognitive agents who have the capacity to possess knowledge and to share this with others (Berthelsen & Brownlee, 2005; Degotardi, 2013, 2014). It also focuses attention on how children construct knowledge and actively contribute to knowledge construction processes. Finally, when enacted, children's right to know also compels others to consider their right—as specified in Article 29—to an education that facilitates learning to the fullest and, ultimately, supports children's endeavours to become knowledge-generating members of their society.

In this chapter, we examine some ways that educator-child interactions support the rights of our youngest citizens—children under the age of 2—to contribute to the knowledge culture of their early childhood classroom. We situate our discussion within a broad theoretical framework of collaborative construction which acknowledges the efforts of both adult and child in the construction of knowledge (Nelson, 1996; Van Oers & Hännikäinen, 2001). In this framework, knowledge construction occurs through the process of reciprocal interactions, during which both partners actively express and extend knowledge (Degotardi, 2014). The process of collaborative construction is inherently participatory as it comprises opportunities to interact and to express oneself within the context of meaningful joint activities (Berthelsen & Brownlee, 2005; Berthelsen et al., 2009). It is also a relational process—one that is reliant on dialogues that involve an exchange of knowledge and ideas that ultimately shape the path of learning (Degotardi & Pearson, 2014; Papatheodorou, 2008).

There are challenges, however, when applying these theoretical principles to infants. While infants' language capabilities develop rapidly during their first 2 years, their ability to represent knowledge and understandings in verbal form is still emerging. Educators' interactions with infants are therefore often reliant on their ability to perceive and interpret subtle cues, and to attribute meaning to short non-verbal or verbal utterances. This is perhaps one reason why, when discussing their pedagogies, infant educators have been found to overlook infants' contribution to their cognitive and language learning processes, and to focus more on social–emotional aspects instead (e.g. Degotardi & Gill, 2017; Salamon & Harrison, 2015). Also, while pedagogical strategies such as open-ended questioning and sustained, shared thinking are frequently espoused as means of encouraging children to express and construct knowledge, research has questioned whether these strategies are well suited to the developmental and learning characteristics of under-two-year-old children (Davis & Torr, 2015; Degotardi, 2017). If infants are going to be afforded a right to participate in knowledge construction processes, these challenges need to be acknowledged and addressed.

Infants as *Knowers*

The difficulties faced by early childhood educators may be compounded by the application of a broader societal view about whether, and if so, how all articles of the UNCRC can realistically be applied to infants. Some have argued that the perspectives and participation of very young children are overlooked by virtue of their relative immaturity and adult-dependency compared to older children (e.g. Dahlberg et al., 2007; Stainton Rogers, 2004). The "all-too-common view that the baby is too small to really understand or to remember" (World Association for Infant Mental Health, 2016, para. 2) is reflected in existing attempts to apply the UNCRC to infants. For example, the Parma Charter of the Rights of the Newborn (Bevilacqua et al., 2011) and the World Association for Infant Mental Health's Basic Principles of Infant Rights focus almost exclusively on health, protection and

social–emotional needs, with scant reference to infants' cognitive agency. In this context, it is challenging to advocate for infants' right to know or to acknowledge their participation in knowledge construction in more than a tokenistic manner (Te One, 2010).

Yet a wealth of information exists to demonstrate that infants are able to construct, hold and act on knowledge representations from early infancy. Infants rapidly acquire knowledge about familiar objects and events, including object properties, foundational categories and concepts, event sequences and object–event associations (see, for example, Baillargeon, 2004; Gelman, 2005). The emergence of symbolic communication in the latter part of infants' first year demonstrates their ability to use conventional non-verbal and verbal means to communicate knowledge to others (Hoff, 2005). While some of infants' earliest efforts tend to communicate wants, needs and social overtures, others, such as declarative pointing and acts of showing, clearly indicate a desire to share knowledge (Lock & Zukow-Goldring, 2007; Tomasello, 2008). Knowledge communication is also evident when infants use first words to label objects, events and their properties, and then progress to using multiword utterances to share knowledge and understandings, to verbally respond to conversational overtures of others and to seek information (Hoff, 2005; Tomasello, 2003). It is therefore clear that infants are knowers and that they gain the ability during their first years to share that knowledge with others.

Agency, Dependency and Power

When determining how to promote infants' cognitive agency, their own representational and communicative capabilities nevertheless comprise only one part of the equation. Wall et al. (2018) explain that young children's voices are relatively controlled by adults and, as a result, their messages are filtered. They suggest that this filter affects whether or not the child is heard, listened and responded to, as well as how their messages are interpreted. The younger the child, the more this may apply. For example, the persistent image of infants as cognitively immature may result in knowledge communications being overlooked by their adult interlocutors (Smith, 2011), while an image of infants as vulnerable and dependent may mean that social–emotional and needs-related communications are privileged over knowledge-based ones. The cognitive agency that is associated with infants' right to express and construct knowledge is paired with a dependency on the interpretations of others and the opportunities that they are afforded to exercise this right (Smith, 2011).

As a consequence, while infants may have the capacity to actively participate in knowledge-based interactions, the opportunities to do so are often dependent on educators (Kellett, 2014; Wall et al., 2018). Lundy (2007) proposes that if young children are to be given participatory rights, certain enabling conditions need to be put in place:

- *Audience* refers to the willingness of others to listen to children, requiring others to encourage children to speak, to take children's communicative attempts and messages seriously, and to acknowledge that children have been heard.
- *Influence* refers to the willingness of others respond to children's messages, and to provide children with the opportunity to experience authentic responses which ultimately encourage them to become self-assured speakers (Kulfer, 2011).
- *Space* refers to the communicative opportunities and expectations that are bound up with particular settings or activities which shape the kinds of interactions that ultimately take place (Wall et al., 2018).

Efforts to afford infants the right to seek, receive and impart knowledge are therefore power-laden and context specific. Opportunities are socially determined; they are dependent on infants' capabilities and communicative actions, as well as the willingness and abilities of others to provide infants with opportunities to participate in knowledge-sharing and knowledge-constructing interactions. Opportunities are situationally determined, as the common practices and expectations associated with different experiences or activities will shape the interactions that ultimately take place. Finally, efforts are inherently relational, with infants' right to contribute to their knowledge culture enabled or constrained by their opportunities to engage in mutually reciprocal knowledge-based interactions.

Positioning Infants as Knowers During Infant-Educator Interactions

Questions such as "Who seeks and shares knowledge and in what contexts?" and "How is knowledge construction supported?" are therefore important topics of inquiry. In the remainder of this chapter, we tackle these questions by drawing on analyses from a large research project which investigated the qualities of the language environment in infants' early childhood education rooms. This project generated observational data from 57 rooms catering for children under the age of 2. Three hours of video data was collected separately for one focus educator and one focus infant in each room. Sound recording devices (bluetooth microphone for the educator and LENA digital language processor for the infant)[1] were worn so that high definition audio data was obtained. The observations captured naturalistic footage across a range of contexts, including inside and outside play, mealtimes, literacy activities and caregiving experiences. This rich data provided avenues for a range of analyses and, in this chapter, we focus on two aspects that are particularly relevant to knowledge sharing and construction: educator questioning and educator-infant conversations.

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[1] The LENA digital language processor is a small recording device worn by the infant in a custom-made vest that fits over the infant's clothes. It produces a high-quality audio file of sounds heard by the infant (see LENA.org)

Educator Questioning

Early childhood education has a long history of championing questioning as an effective means of engaging children in knowledge-constructing interactions (e.g. Allerton, 1993; Chappell et al., 2008; Siraj-Blatchford & Manni, 2008). Questions invite children to participate in interactions and, because they encourage children to share their knowledge and ideas, can lead to opportunities for the collaborative extension of learning (Siraj-Blatchford & Manni, 2008). Most research on questioning has focused on interactions with older children, but research with infants and toddlers suggests that questioning is also an important strategy with this age group (e.g. Davis & Torr, 2015; Girolametto & Weitzman, 2002; O'Brien & Bi, 1995).

Educator questions may provide infants and toddlers with both a *space* to express, and an *audience* to encourage the expression of knowledge (Lundy, 2007). Particular types of questions create different opportunities for knowledge exchange. While open-ended questions are highly valued with preschool-aged children, they may feature rarely in interactions with infants (Cicognani & Zani, 1992; Davis & Torr, 2015). Some questions types, such as known-answer *test* questions or directive *yes/no* questions, may control children's responses, while information seeking *wh* (what, when, where and why) and *clarification* (yes/no) questions may establish and sustain conversation (Girolametto et al., 2000). Furthermore, different activity contexts may elicit specific question types, and therefore provide infants with different opportunities to respond and participate (Girolametto et al., 2000; O'Brien & Bi, 1995).

In this analysis, we examined the frequency and qualities of infant-directed questions used by the focus educators in our study (Degotardi et al., 2018b). While questions can function as commands (*Could you put your shoes on please?*) or offers (*Would you like some juice?*) (Hu et al., 2017), we were interested in *pedagogical* questions, defined as those which function to seek information (Hasan, 1991). According to Hasan, pedagogical questions take three main forms, each of which present different opportunities for the respondent to represent knowledge through language:

- *Confirm* (yes/no) questions ask the respondent to confirm or refute the experiential content of the question (e.g. *Is it a dog? Does that one (cylinder) roll as well? Does that feel cold?*).
- *Specify* questions (*what*, *who*, *whose*, *when* and *where*) ask the respondent to specify the name of an entity, person, time, place or action (e.g. *What's in there? Who's that? Where's Woof?*).
- *Explain* questions (*how*, *why*) ask the respondent to provide an explanation, reason or justification (e.g. *Why did Scruffy run away?*).

We were interested in how frequently educators used these questions and whether this was related to the activity context in which the questions were used. We therefore examined 10-minute video extracts from two activity contexts:

- Educator mediated-play, on the basis that the activity is largely infant-led, yet the educator's active involvement presents opportunities for responsive interactions (Girolametto & Weitzman, 2002).
- Book-focused interactions, on the basis that the activity provides opportunities for infants and educators to engage in language-rich interactions around a shared focus (Gilkerson et al., 2015).

In order to explore whether educators adapt their questioning use to suit the two contexts, we only included educators in our analysis whose videos yielded 10-minute uninterrupted footage in both contexts ($N = 27$). For these educators we separated the transcripts of their infant-directed talk into messages (defined as "the smallest semantic unit that is capable of entering into the structure of a text" [Hasan, 1991, p. 81]), and then identified incidences of the three kinds of pedagogical questions. We divided each of the three types of pedagogical questions by the number of messages, thus yielding proportions which were compared between the two activity contexts in our analysis.

The Prevalence of Educator Questioning

As found in previous studies (Cicognani & Zani, 1992; Davis & Torr, 2015), *Explain* questions were used very rarely ($M = 0.08\%$ of messages), which is not surprising given that Explain questions seek cognitively and linguistically demanding responses (Massey et al., 2008). The remaining educator questions were made up of *Confirm* and *Specify* questions (7.60% and 8.32% of all messages respectively). While there were no significant differences between the proportion of all pedagogical questions generated by the focus educators during book-focused interactions ($M = 16.89\%$, $SD = 7.32\%$) and mediated-play ($M = 15.14\%$, $SD = 6.48\%$, t $(26) = 0.95$, $p = .35$, $d = 0.18$), differences were apparent in their use of the two question types. As shown in Fig. 9.1, educators used a significantly higher proportion of Confirm questions during mediated-play than book-focused interactions (t $(26) = -2.12$, $p < .05$, $d = -0.41$). The pattern was reversed for the use of Specify questions: the proportion was significantly higher during book-focused interactions than in mediated-play (t $(26) = 3.38$, $p < .01$, $d = 0.67$).

When we examined the transcripts, it was apparent that educators were using these question types to create very different language opportunities for the infants in each of the two activity contexts. Table 9.1 presents some typical examples of how the educators changed their use of questioning from one context to the other.

During mediated-play, educators used Confirm questions to seek feedback about infants' internal experiences, in terms of their knowledge (E26 *Is it a fire? Is it a fire truck?*), their perceptions (E29 *Can you see it?* E60 *Can you hear it ticking?*) or intentions (E29 *You going to wave to the aeroplane?* E60 *Let's try and see if it's working, okay?*). Confirm questions were being used to frame infants' experiences in language, providing language input that was directly relevant to their current
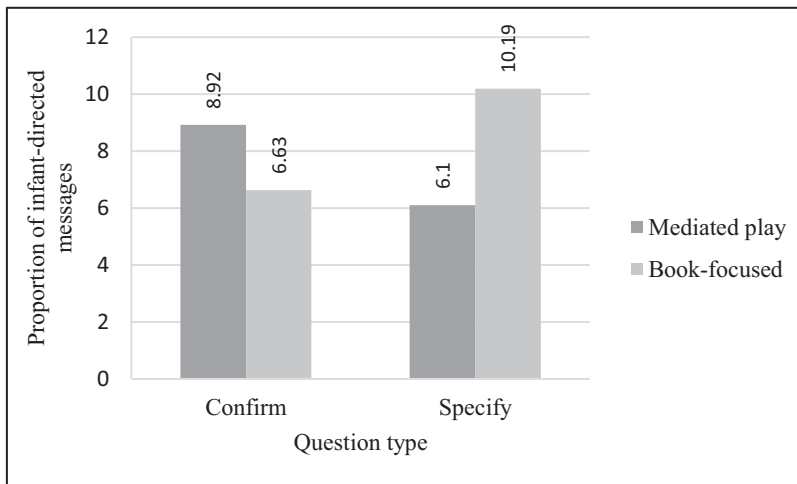
Fig. 9.1 Frequency of confirm and specify questions used by focus educators during mediated-play and book-focused interactions

Table 9.1 Typical question use during mediated-play and book-focused interactions

Mediated-play	Book-focused
E26: (Sitting outside, an infant stops in his tracks when there is the sound of a fire engine) I: *Fire!* E: *Is it a fire?* (pause, and looks towards infant). E: *Is it a fire truck?* E: *Can you hear it?* E: *Are you listening?* I: (*points towards the road*) E: *We can't see it. We can just hear it.* E: (hears the siren again) *Is it a fire?*	E26: (Reading a narrative book about a cat in the kitchen to a group of infants) E: *What can we see on this page here?* (points at the picture) *What's on this page?* I: *Biscuit.* E: *Biscuits.What's on this one?* E: *What can you see over here Taylor?* (points again and holds the page towards the infant).*What's that?* I: *Melon.* E: *Melon, watermelon* (turns the page).
E29: (Outside with the infants, putting out some plastic stepping stones. An infant approaches and watches her) E: *Do you want to walk on the stepping stones?* E: *Shall we put them out?* I: (bends to help) E: (reacts to the sound of an aeroplane) *Can you hear another?* E: (looks up) *See the aeroplane?* E: *Can you see it?* E: *You going to wave to the aeroplane?* (waves, and I watch on).	E29: (Sitting on the floor with a group of infants, reading a farm-themed narrative book) E: *Who's behind the gumboots?* (holds the book in front of one infant who points at the picture). E: *Henry had gumboots on this morning, didn't he?* E: *Peekaboo. Say "Oink, oink".What animal is that?* E: *What animal goes oink, oink?* I: *Oink, oink.* E: *What animal goes oink, oink? A pig?* I: (points at the picture of the pig) E: *Oink, oink. A pig.*

(continued)

Table 9.1 (continued)

Mediated-play	Book-focused
E60: (At a playdough table with three infants. An infant looks across the table and points to an egg timer) I: *Alarm, Alarm.* E: (follows I's point and picks up the timer) *the alarm.<u>Do we need to set the alarm?</u>* I: *Yeah.* E: <u>*Let's try and see if it's working, okay?*</u> I: *Yeah.* E: *It might not be working.* (holds it to I's ear) <u>*can you hear it ticking?*</u> *Tick, tick, tick, tick, tick.*	E60: (Reading a narrative book about different vehicles on the road) E: *But the car can't go, because of the van.<u>What did the van driver say?</u>* (holds her hand up to gesture "stop"). I: *Stop.* E: *"Stop" to the car.* I: *Stop.* E: <u>*And who comes next?*</u> (turns the page). <u>*Oh, what's this one?*</u> I: *Motorbike.*

E# educator ID, *E* educator, *I* = infant; underlined text represent (i) Confirm questions in the mediated-play context and (ii) Specify questions in the book-focused interactions

experience. Such input during shared experiences supports infants' language development (Degotardi, 2017; Rudd et al., 2008) and, by positioning the infant as one who could confirm or refute the educators' interpretations of their experience, supports their engagement in conversations. Furthermore, educators' Confirm questions can focus infants' attention on socially determined salient phenomena, thus creating opportunities where information can be shared and socially constructed (Tomasello, 1999).

In contrast, the more frequent use of Specify questions during book-focused interactions encouraged infants to label objects (E26 *What's on this page?* E29 *What animal is that?*) and to express their knowledge in verbal (E60 *What did the van driver say?*) and non-verbal (E29 *Who's behind the gumboots?*) forms. It thus appeared that the rich pedagogical content that can be found in children's books encouraged educators to use Specify questions. These questions in turn provided infants with opportunities to express their knowledge and, sometimes, to receive information from others that would extend that knowledge as well.

Our analysis demonstrated how educator questions potentially afford infants their participatory right to express knowledge. Questioning provided these infants with an attentive audience who, by seeking input regarding their knowledge, created a non-demanding space in which they could express knowledge using their emerging non-verbal and verbal means. Our analysis also demonstrated that specific activity contexts act as enablers. While the pedagogical potential of the interaction ultimately lies in the language choices of the educator, it appears that the activity itself may elicit the use of particular questions for particular purposes. Ultimately, our data suggests that the opportunities that questioning provide for infants' active expression of knowledge is context specific.

Educator-Infant Conversations

The analysis above focused on the efforts of educators in creating opportunities for knowledge expression. What is missing, though, is information about how infants actively contribute to their knowledge culture. If we adopt a social–collaborative approach to knowledge construction, it is essential to also consider infants' participation in dialogues, which can only be done by examining how both parties share, respond to and extend knowledge (Degotardi & Pearson, 2014; Papatheodorou, 2008).

In this next section we report on an analysis of educator-infant conversations in order to shed some light on the collective participation of both educator and infant (Degotardi & Han, 2020). Using a subset of the focus infant data, we examined conversations which extended to at least three turns. This benchmark was chosen as three turns indicate the point in a conversation where information is exchanged between speakers, rather than simply received and responded to (Bloom et al., 1996). The third turn provides the potential for knowledge extension, when the initial speaker addresses the response of the other. Once the benchmark of three turns is exceeded, dialogues can be created in which interactions are sustained, participation is shared, and the collaborative knowledge construction process can be enhanced (Degotardi, 2017; Fernyhough, 1996).

We selected the data to analyse on the basis that previous analyses had demonstrated that the sheer quantity of words addressed by educators to infants was significantly related to the quality of their interactions (Degotardi et al., 2016, 2018a). We therefore identified the 15-minute peak period of educator talk to 14 of the focus infants and analysed this footage to identify all three turn conversations that occurred during this peak time. Once identified, we used Halliday's (1975) two functional categories of language use to code educator initiations as knowledge-based (initiations that shared or sought information) or non-knowledge-based (initiations which served an instrumental [needs/wants-based], regulatory [behaviour directive] or social [interpersonal] function). The second and third conversational turns were then coded as follows:

- Feedback: Responses that acknowledged or repeated the message of the previous conversational turn, including confirmations ("yes/no", "okay"), repeats (response repeated all or part of the previous turn) or recasts (response re-phrased the previous turn).
- Extension: Responses which injected more information into the conversation, including information provided as answers to questions.

Finally, we coded each conversation according to whether it terminated at three turns or continued past this benchmark.

We were interested to know whether the two broad types of educator initiations created different knowledge construction opportunities for infants and, also, whether infants' contributions to the conversation had a bearing on these opportunities. We therefore used cross-tabulations to examine associations between the types of educator initiation, infant response and the continuation or termination of the conversation.

We found that infants tended to follow non-knowledge initiations with feedback responses, while knowledge-based initiations were more likely to be followed by extension responses (χ^2 = 17.40, φ = .41, p < .01, see Fig. 9.2). Furthermore, conversations where the infant responded with an extension were significantly more likely to continue than those where the infant responded with feedback (χ^2 (1) = 6.65, φ = .26, p < .05, see Fig. 9.3).
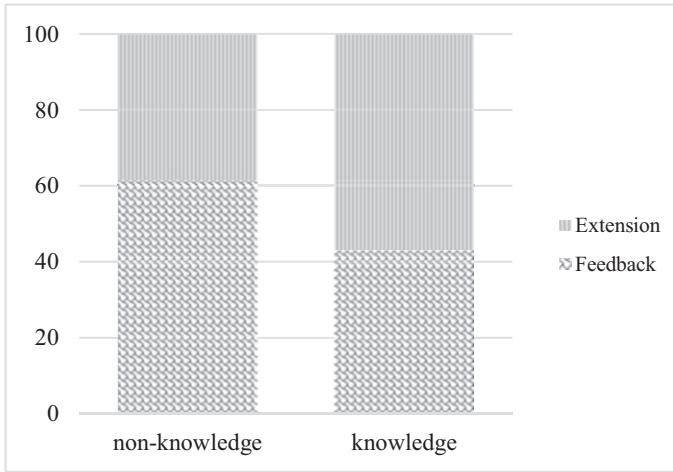

Fig. 9.2 Proportion of feedback and extension responses associated with the two different initiations
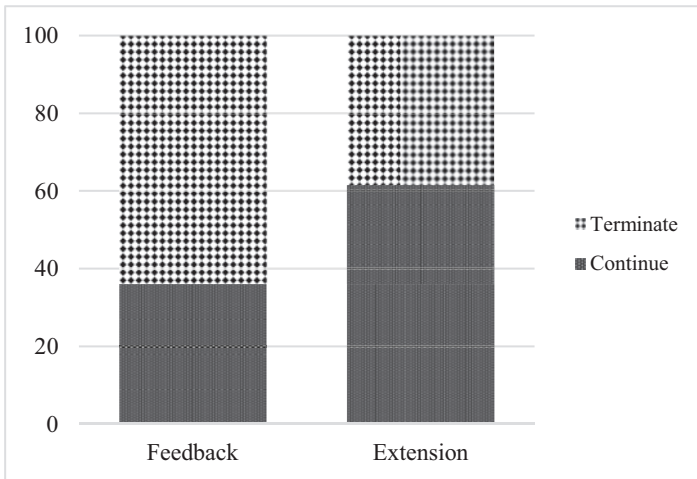

Fig. 9.3 Proportion of feedback and extension responses associated with termination or continuation

The two initiation types therefore presented different opportunities for infants to express their knowledge, and the type of infant response then predicted whether or not the conversation extended beyond three turns. Our final analysis step was to conduct a hierarchical sequential analysis to examine the sequence of all conversational turns. Sequential analysis calculates the likelihood that each turn type is directly followed by a particular turn type, therefore is able to illustrate patterns of conversations that are most likely to occur. The analysis categorised educator-infant conversations into four distinct sequential patterns (see Fig. 9.4). Pattern 1 ($n = 17$) captured the sequence of non-knowledge-initiated conversations that continued past three turns, while Pattern 2 ($n = 27$) represented the sequence of non-knowledge-initiated conversations that terminated. Patterns 3 ($n = 33$) and 4 ($n = 25$) captured the sequence of knowledge-based initiated conversations that continued and terminated respectively.

These patterns clearly illustrate that conversations were more likely to be sustained beyond three turns when the educator initiation was followed with an infant extension response. Although more knowledge-based initiations were sustained, compared to non-knowledge-based initiations (57% versus 39% respectively), the statistical significance of the association between initiation type and continuation status only tended towards significance ($\chi^2 (1) = 3.34$, $\varphi = .18$, $p = .08$). The sequential analysis instead demonstrated that, while the educator could set the scene for sustained conversations, the infant's response contributed significantly to this potential. Specifically, when the infant responded by *adding information* to the conversation, regardless of the initiation type, the likelihood of a sustained conversation was enhanced. Examples of these four sequence patterns are provided in Table 9.2.

When sustained, educator-infant conversations reflected the mutual audience and influence of both interlocutors. While educators' choice to use knowledge-based
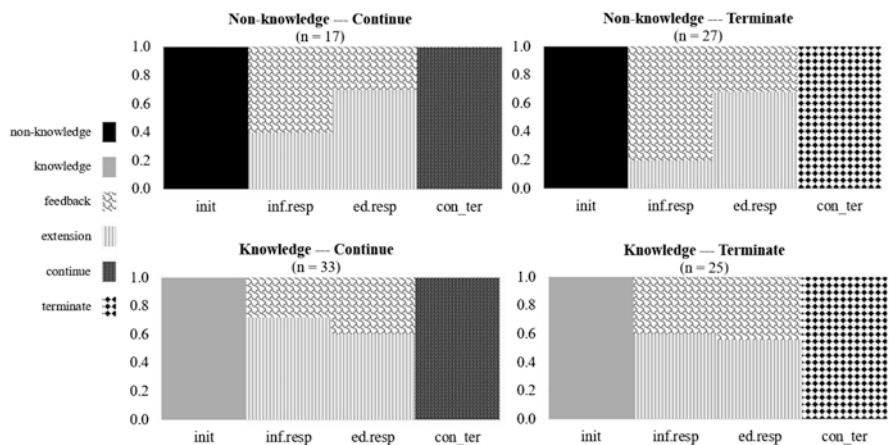
init = initiation; inf.resp = infant response; ed.resp = educator response; con-ter = continue or terminate

Fig. 9.4 Four patterns of conversations

Table 9.2 Examples of each conversation pattern type

Pattern 1 (Non-knowledge—continue)	Pattern 2 (Non-knowledge—terminate)
E11: (It is morning tea time and educators are serving sandwiches) E: (holds out the tray to I) *Which one do you want? Cheese or jam?* I: *Points and vocalises at a sandwich* (extension [reply]). E: *Oh. Jam?* I: (Continuation) *Jam.*	E4: (The infant stops walking when the phone in the room rings. Educator notices and asks) E: *Would you like a phone?* I: *Like phone* (feedback [repeat]). E: *I'll get one.* (Interaction terminates as the educator walks to the cupboard to find a toy phone)
Pattern 3 (Knowledge—continue)	Pattern 4 (Knowledge—terminate)
E32: (The educator and infant have mixed some cake batter and the educator is pouring it into the tin) E: *Look at that. It's all mixed really well.* I: *That's my cake!* (extension) E: *Yeah. And we can have it for afternoon tea. This is going to be everybody's cake.* I: (Continuation) *Winnie's cake.*	E52: (The educator is holding the infant and there is the sound of the telephone ringing) E: *Oh. What's that? Can you hear the phone ringing? Ring ring!* I: *Ring ring* (feedback [repeat]). E: *Ring ring, ring ring.* (interaction terminates)

initiations tended to provoke infants to add more information to the conversation, there was also potential for non-knowledge-based initiations to encourage extension responses. Once jointly established, these conversations then afforded an audience and influence to both participants through opportunities to express, respond to and build knowledge. These conversations thus became interactive and collaborative contexts for knowledge construction.

Concluding Thoughts

When advocating the importance of providing children with a voice in early child-hood settings, Kulfer (2011) writes that "Exploring what young children say is not possible without taking into account what young children hear" (p. 100). In this way, he argues that it is not possible to truly recognise and understand young children's voice without consideration of the interactions in which they take place. It is these interactions that give shape to meaning, and therefore to knowledge expression and construction, in ways that extend beyond the analyses of one person's contribution. It is these interactions which present young children with learning opportunities that extend beyond individual processes of learning by doing, observing or listening. Finally, it is these interactions which afford social and cognitive agency through opportunities to express, reply and, therefore, contribute to the topic under discussion.

While the present chapter has tended to focus on the *verbal* voice of very young children, this is by no means to suggest that the *non-verbal* voice should be neglected, not only with preverbal infants but also children with complex communication needs, such as those with developmental delays or childhood speech and

language disorders. Research has indicated that disabled children who express their voice non-verbally are often underestimated by practitioners (Holland, 2011). However, our research demonstrates that, by engaging in interactions that encourage response and reciprocity, all children can be positioned as active participants in these interactions, and ultimately afforded the right to express what they know.

As explored in this chapter, it is evident that educators, through the often-unconscious choices that they make when talking to infants, play a powerful role in establishing opportunities for infants to express knowledge. Through their responses, knowing infants actively contribute to these interactions. The two partners—educator and infant—work together to establish and extend knowledge construction opportunities. While it is clear that our present investigation of the collaborative nature of knowledge-based educator-infant interactions is, in itself, in its infancy, we suggest that the concept of cognitive agency, so central to the realisation of Article 13, needs to apply to *both* infant and educator. When both parties seek, receive and impart knowledge, and respond to each other's attempts to do so, dynamic knowledge construction contexts will follow and create a knowledge culture in which everyone's *right to know* is central.

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