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Metacommunication in social pretend play: two dimensions

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ABSTRACT

Research suggests that metacommunication in young children's social pretend play is the most complex form of cooperation. In this study, metacommunication was examined using audio and video recordings during pretend play. Participants were 24 children in kindergarten average age 5.1 years. Utterances were coded for metacommunication, the narrative content and the social dimension of cooperation. Results show that while the use of metacommunication correlates with the complexity of the narrative, it does not correlate with the complexity of the social dimension. Implications for supporting metacommunication in social pretend play by teachers are discussed.

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Introduction

Learning to play together is an important aspect of young children's social development. In social play, children learn to take perspective, accommodate to the other and solve conflicts in a positive way (Doyle and Connoly 1989; Shantz and Hobart 1989). The categories of play from Parten's (1932) classical study of the development of cooperation in play are often used and elaborated in research (Broadhead 2006). In addition to categories such as parallel play, simple social play and cooperative play, Howes and Matheson (1992, 962) introduced a new category: complex pretend play, in which children use metacommunication to 'coordinate their roles with their partner (..)' and 'to coordinate the planning and maintenance of the play'. They considered this category the highest level of complexity of cooperation. However, there is no research concerning the complexity of the use of metacommunication in terms of both its narrative content and the extent to which children are sensitive in responding to the contribution of the play partner. Therefore, the main question of this study is: What is the role of metacommunication in social pretend play?

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Social pretend play and metacommunication

Young children's pretend actions are initially directed towards the self, like pretending to sleep while transforming objects into a pillow, sometimes asking for the attention of others by making pretend sounds. At the end of their second year, they start to inform peers about their actions, which gives their pretend play social significance. From the second half of their third year children are able to share their pretence with others and integrate it in their social interactions with peers (Howes, Unger, and Matheson 1992). With more experience in pretend play, children develop a better grasp of the representational aspects of their play, which is reflected in their use of explicit metacommunication, which 'functions to establish the play frame, to provide on-going messages as to how behaviour should be interpreted, and to manage any alterations to this frame' (Whitebread and O'Sullivan 2012, 203).

Pretend play and metacommunication, i.e. a child's communication of how its behaviour should be understood with regard to setting and plot of the pretend play, reflect complex behaviour. Vygotsky (1976) spoke of the abstract level of pretend play because the children act on ideas rather than objects, by which they show that they are able to distinguish the fictional from the real world. Bateson (1955) highlighted the abstract level of metacommunication in pretend play, which enables children to communicate their orientation at how to understand a message, thereby distinguishing the pragmatic function and the denotational content of language. In addition to messages that simulate actions, participants use metacommunicative 'messages of the frame setting type' that remind the receiver that 'This is play' (Bateson 1955, 72). A frame is 'a set of shared organizational principles that places behaviour and events in a context' (Giffin 1984). Garvey and Kramer (1989) concluded in their review of pretend language research that messages have one of two major functions: enactment in which the pretend is played out, and emplotment by which children articulate intentions with the plot and the related setting of the pretend play. Young children have a repertoire of emplotment techniques by which they communicate (changes in) the play frame, determine or negotiate the interpretation of roles and objects, and indicate developments in the plot, motives and moods.

There are different approaches to the concept of metacommunication, related to the notion of frame. One approach restricts the concept to messages of the frame setting type (Howes and Matheson 1992), whereas the other distinguishes implicit and explicit metacommunication, roughly referring to respectively within-frame and out-of-frame messages (Giffin 1984; Sawyer 1993; Whitebread and O'Sullivan 2012). In the first interpretation, a frame is conceived as a rather stable structure; metacommunicative, emplotment messages in play are seen as to refer explicitly to this frame, delivered sequentially and alternately with enactment messages (Mitchell 1991). The second interpretation is rooted in pragmatic theory, in which the meaning of *all* messages is considered an index of or dependent on the social context, the frame of the interaction. The interaction is considered to proceed on two levels *simultaneously*: the content level of speech (which, in pretend play, is the level of the narrative) and the level of the pragmatic properties of the interaction, i.e. how speakers have to interpret the message. Implicit within-frame, enactment messages have metapragmatic effects in the sense that participants intend and recognise the message elements as signals of play, which indicates that they have at

least some awareness (conscious or unconscious) of their communication about the frame (Mitchell 1991; Sawyer 1997). Instead of a dichotomy, Giffin (1984) proposed a continuum from implicit to explicit metacommunicative strategies. This continuum ranges from within-frame enactment messages, in which a child speaks in role through a character, to out-of-frame overt proposals to pretend. In between are verbal and non-verbal messages by which a child is taking increasingly more explicit steps to refer to aspects of the frame. For example, the message *Wash wash wash* in a singing voice underscores the action, which is more within-frame than prompting with a normal but low volume voice *We were going to wash the baby*. This in turn is less disrupting to the flow of play than negotiating *Do you want to be the father?* Sawyer (1997) observed 'blended' messages which may be spoken in-character, but with reference to out-of-frame: *Mom, we pretend that the baby is ill*, or spoken out-of-character, but with reference to within-frame: *Jennifer, is our baby still sleeping?* As a result of the different approaches to the concept, researchers differ in their coding of metacommunication.

Regarding pretend play, Sawyer (1993, 277) characterised a frame as 'a constantly fluctuating process of negotiation and change', which children develop throughout the play interaction. Social pretend is often characterised by multiple individual frame interpretations of the young play partners that intersect at certain key points to achieve compatibility among the various frames. When the frames coincide at the moments of this intersection, Sawyer refers to a cocreated frame. The cocreated frame and the individual play frames are often in flux. When the 'regimenting' of a cocreated frame weakens, or when a child wants to vary upon or change a cocreated frame, 'metacommunicative statements must become accordingly more explicit to retain coherence with the cocreated frame' (Sawyer 1993, 266). In this view, explicit metacommunication is also a sign that a child wants *the cooperation to continue* in a certain direction. Giffin (1984) indicated that implicit strategies disturb the play action to a lesser degree than strategies by which children step out of the frame, but the latter often are important for sharing the play frame. Douglas and Stirling (2012, 41) suggested that children with autism who are less competent in acknowledging the perspective of the play partner have difficulties with this flexibility to 'resolve a trouble spot in the play'.

The relationship of metacommunication and cooperative play

Research of the relationship between metacommunication (sometimes under the heading of negotiation or intersubjectivity) and the complexity of cooperation of children in play is limited. In Howes and Matheson's (1992) study, the complexity was measured as the first moment young children display a certain form of cooperation. Social pretend with metacommunication is the last acquired form of cooperation and is therefore considered the most complex. Göncü (1993) found that preschool children more often used metacommunication to elaborate their own contribution than to take up the other's message. Results of Vriens-van Hoogdalem, de Haan, and Boom (2016) showed that the more four – and five-year old children used explicit metacommunication in free play, the more they pursued their own contribution; there was no relationship with the complexity of cooperation in terms of the categories of simple, cooperative or coordinated play. However, Whitington and Floyd (2009) found the opposite: when the four-year-olds had a shared focus in their play, their metacommunicative utterances were more often directed towards elaboration

of the contribution of their play partner. Whitebread and O'Sullivan (2012) suggested that metacommunication may serve a double function in sustaining both self regulation and co-regulation. Slot et al. (2017) found a relation of metacommunication with observed cognitive self-regulation (planning, monitoring behaviour).

Metacommunication used to negotiate may be indicative of perspective taking. Results of research are again ambiguous. With respect to affective perspective taking and theory of mind (ToM), Doyle and Connoly (1989) did not find a relation with the amount of enactment nor with negotiation; Youngblade and Dunn (1995) found a relationship of ToM with enactment, but not with metacommunication; and Nielsen and Dissanayake (2000) found a relationship with both. Jenkins and Astington (2000) showed a causal relationship of the development of ToM with joint planning and role assignment in pretend play, but not the reverse. Within Giffin's (1984) continuum, Douglas and Stirling (2012) distinguished metacommunicative strategies at the bottom of the continuum like enactment which may also occur in solitary play, and strategies, that are exclusive to social pretend further up in the continuum, which are more interactive. They showed that children with autism who are less competent in achieving a joint focus in their pretend, did not use the more interactive strategies.

Thus as of yet, there is no conclusive evidence that metacommunication is related to more complex cooperation in pretend play.

The relationship of metacommunication and narrative complexity

Metacommunication in pretend play may relate to the complexity of the denotational narrative content. It gives an indication of children's knowledge, reflection and communication on narrative components of the play. Evidence for the role of metacommunication in respect to this dimension is also limited. A number of studies investigated the relation between pretend play and narratives. Although pretend play is often considered a story in action, Nicolopoulou (2005) suggested that pretend play and narratives of young children can be conceived as complementary modes of narrative activity. Walker (1999) showed similarities between narrative characteristics in pretend play and written narratives of four – and five-year olds, and Lillard et al.'s (2013) review reported that pretend play is related to narrative skills. To our best knowledge, Williamson and Silvern (1992) is the only study that investigated the role of metacommunication ('out of role') and enactment ('in role') in pretend play for narrative competence. Five – to seven-year old children played out stories that were read to them. Narrative comprehension (test, picture sequencing task, retelling) appeared to be related to metacommunication but not to enactment.

Method

Participants

Participants of this study were 24 children in the kindergarten setting of two Dutch primary schools, equally distributed with respect to school, grade and gender. The mean age was 5years 1month (61 months, range 49–73, SD=7.12). The schools were situated in urban areas: one with a primarily mono-ethnic population of Dutch indigenous

children (a classroom of 27 first and second grade children), the other with a multi-ethnic population (one classroom with 15 first grade children, one classroom with 19 second and third grade children). Based on information from the teacher, six children from the first and second grade were selected, excluding children who were new to the group, had insufficient proficiency of Dutch or social-emotional problems. Seven children came from low SES families, twelve from middle and four from high SES families; the SES of one child was unknown. Our research design was in line with ethical norms and was carried out with the informed consent of the parents of the 24 focus children. Since the focus children were free to choose their play partners, consent was also obtained from all other children of the classroom.

Procedure and instruments

Data were collected by the use of audio – and video-observations during 30 minutes free play of each focus child in the children's classroom. Both classrooms had a play curriculum as is standard practice in Dutch kindergarten; in addition to circle time, physical education and activities in small groups, around two hours a day children are free to play in several activity centres. Free play was defined as a situation in which children were free to choose the activity and play mate(s). Children could play with or without the involvement of the teacher. Each focus child wore a microphone and a little backpack with a transmitter for the audiotaping connected to the video camera.

Childes, a computerised system for analysis of child speech, contains a system for transcription and a collection of analysis programmes and was used to transcribe, code and analyse the verbal utterances of the children (MacWhinney 2000, https://childes.talkbank.org). An utterance is a minimal terminal unit, consisting of one independent main clause and any dependent subordinate clause connected to it. Nonverbal acts were described in separate comments and used for the interpretation of the utterances.

Of all utterances, the fragments were selected that consisted of social pretend play, i.e. in which children were involved in a joined play-script in which they imagined a symbolic reality, giving new meaning to persons, objects, acts or situations. Each utterance of the play partners was coded for the use of metacommunication, contribution to the other's or one's own previous utterances and complexity of the narrative content of the pretend play.

Metacommunication

The metacommunication categories were based on the implicit-explicit continuum (Giffin 1984; Sawyer 1997). Children's metacommunicative private speech utterances as 'speech not clearly and definitely directed toward the listener' (Kraft and Berk 1998, 646) (in our study by turning or walking away) were not included in the analysis. We coded the pretend play utterances as:

(1) Implicit, within-frame, in-character metacommunicative utterances by which children represented or suggested an action, like the utterances of Leni[1]: *Eat mommy. Mom, can I eat with you?* The utterances consisted of enactments in which children continued the play script, used ulterior conversation in which they introduced elements of the established frame in a within-frame way like *Hello sister*, and

underscoring by verbally sustaining their action in a minimal way, like *slide-slide-slide* while rubbing a hand over the sand, and making sound effects.

(2) More explicit metacommunicative utterances higher up in the continuum of Giffin (1984), like Sela's messages to her play mates in the house corner: *Needs to be in the pram* (puts her stuffed animal in the pram). *And now we went off*. Also underscoring by commenting on the action like *Baking cake!* and blended messages (Sawyer 1997, 2003) were coded in this category.

Since our research question concerns metacommunication in complex cooperation as suggested in Howes and Matheson (1992), only the more explicit, interactive strategies were analysed in relation to cooperation.

Contribution

The social dimension, the 'Contribution to the child's own or the play partner's utterances' was based on the concept of 'semantic tying' (Corsaro 1983) and divided into three categories:

(1) Self: the utterance was linked to a previous utterance of self.

(2) Self within the turn: the utterance was the second or later utterance within a turn of a child and linked to a previous Self-utterance within the turn. A turn was defined as a unit of one or more utterances without interruption by the play partner. When the play partner gave a listening response (*mmm*, *yeah*) which did not have further content, this was not considered a change of turns. All other contributions were seen as a change of turns. This category was added since the coding of all utterances within the turn as Self did not do justice to turns of more than one utterance: In conversation, ignorance of the contribution of the other in turn taking in which turns of one utterance are alternated, goes more obviously against the cooperative principle of being responsive to the partner's contribution than when a child elaborates within the turn on its initial responsive utterance.

In the next example, the more explicit metacommunicative Self-utterances are marked with * and 'Self within the turn' with **.

Merd and Ilia have been playing with racing cars. Ilia is looking at Sati who is playing with animal puppets.

Merd: *Come, are going racing.* (Addresses Ilia). *Tuutuututuut.* (Makes a starting sound with his car and drives away. Remains looking at Ilia.)
Ilia: (Looks at Merd's play.)
Merd: *Brrrrr.* (Racing sounds. Flies with the car in the air and let it fall. Addresses Ilia and Sati). *He is dead*. This car is dead**.*
Ilia: *Mine?*
Merd: *He is dead*.*

(3) Other: the utterance was linked to the previous utterance of the play partner. In the next example, the Other-utterances are marked with *.

Sela: And now we went off.
Leni: And I had to keep her with me*. (Takes the animal out of the pram.)
Sela: No no she had to be in the cart*. Because we went to the city. (Picks up the animal again and puts it in de pram.)

When there was no connection with a previous utterance, the utterance was not coded.

Complexity of narrative content

The coding of the complexity of the narrative content was derived from the distinction of Beizer and Howes (1992).

(1) Simple: Single scheme utterances: the utterance represented no new information or development of the narrative relative to the previous utterances.
(2) Complex: Multi-scheme sequence utterances: the utterance was part of a sequence of related utterances by expanding earlier information: a characteristic of the symbolic self, the other, object, motive; information about the setting; development of the script or the logic of actions in time.

Reliability

To calculate the interrater reliability, 6% of all free play utterances was independently coded by two researchers. Cohen's Kappa was .83 for within-frame, in-character utterances and .89 for the more explicit metacommunicative utterances. On behalf of the coding of the complexity of cooperation 12% of the utterances was double-coded. Cohen's Kappa was .82 for contribution self/other, and .72 for the added category of Self within the turn. The reliability of the coding of narrative complexity was .73.

Analysis strategy

Both quantitative and qualitative analyses were used to determine the role of metacommunication in social pretend play.

First, to analyse the relation between the use of the more explicit metacommunication and the complexity of the cooperation in terms of contribution and complexity of narrative content and between these two dimensions of complexity, Pearson's correlations were used. The statistical analyses (SPSS) were done on aggregated scores of means or percentages of the coded utterances per child, determined with the frequency programme of Childes. More explicit metacommunication was measured by calculating (1) these utterances on the number of minutes of pretend play of the participants and (2) the percentage of these utterances on the sum of all within-frame and more explicit metacommunicative utterances. With respect to contribution, a value of 1–3 was assigned, in accordance with scales of play development in which self-directed play was valued at a lower level than other-directed play (Beizer and Howes 1992; Bornstein et al. 1997). A score of 1 was assigned to an utterance linked to a previous utterance of self, a score of 2 to an utterance related to self within a turn, and a score of 3 for an utterance linked to an utterance of the other. An average contribution for each participant was calculated. The average narrative

complexity was calculated by attributing a value of 1 to each single-scheme utterance and a value of 2 to a multi-scheme utterance.

Subsequently, in addition to determining statistical relations between metacommunication and cooperation, a qualitative micro-analysis was done with the Childes' programmes for analysis (MacWhinney 2000), to have a better view on the functioning of metacommunication in the cooperation of individual children and to discover possible functions of metacommunication in cooperative play. First, we compiled a profile per individual child. We went through five steps for each child: (1) calculating the number and percentage of more explicit metacommunicative utterances building on the self, self within a turn and the other on the total of the utterances coded for contribution. The total of utterances coded for contribution was the basis to calculate the relation of the more explicit metacommunicative utterances with (2) narrative complex multi-scheme utterances building on the self or the self within the turn (3) narrative single-scheme utterances building on the self or the self within the turn (4) narrative complex utterances building on the other (5) narrative single-scheme utterances building on the other. In addition, using the programme's tool to select utterances coded for a specific combination of codes (for instance complex narrative and building on the other) with their context of previous and subsequent utterances, we further analysed, with an open mind, how utterances with specific codes functioned in terms of their characteristics of the cooperation in a specific discourse.

Results

Of the 24 focus children, 22 were involved in pretend play during free play with in total 2273 utterances (range 1–281). Table 1 gives an overview of the descriptive data.

Table 2 gives an overview of the Pearson correlations between the mean number of explicit metacommunicative utterances per minute, percentage of these utterances on the total of implicit and more explicit metacommunicative utterances, cooperation with regard to contribution to previous utterance of the self, self within the turn and the other, and narrative complexity. There was a strong positive correlation between more explicit metacommunication per minute and percentage of more explicit metacommunication on the one hand and narrative complexity on the other hand. There was no correlation between more explicit metacommunication and contribution, nor between the dimensions of contribution and narrative complexity.

In the qualitative analysis, we studied the more explicit metacommunicative utterances ($n = 1118$, range 0–185) per child to see how contribution to the own or the other's previous utterances and narrative complexity go together within the utterances. Seven of the 22 children had too few of these metacommunicative utterances (≤15) to make reliable

Table 1. Mean, Standard Deviation and range of explicit metacommunication, contribution and narrative complexity (N=22).

	M (SD)	Range
Number of Explicit Metacommunicative Utterances per Minute	6.58 (4.14)	0–15.67
Percentage of Explicit Metacommunicative Utterances of all Metacommunication	55.16 (23.32)	0–100
Contribution of Self, Self within the Turn or Other	2.16 (0.33)	1.76–3.00
Narrative Complexity	1.49 (0.17)	1–1.71

Table 2. Pearson correlations between explicit metacommunication, contribution and narrative complexity ($N = 22$).

	Number of explicit meta-communicative utterances per minute	Percentage of explicit meta-communicative utterances	Contribution of self, self within the turn or other	Narrative complexity
Number of Explicit Meta-communicative Utterances per Minute	–			
Percentage of Explicit Meta-communicative Utterances	.651**	–		
Contribution of Self, Self within the Turn or Other	−.188	−.376	–	
Narrative Complexity	.543**	.507*	-.332	–

**$p \leq .01$; *$p \leq .05$.

statements. The analysis of the remaining 15 children ($n = 960$ utterances coded for the two dimensions, range 27–185 utterances, mean 71.2) yielded a differentiated picture and different profiles of the children. Figure 1 gives information on scores on all narrative complex utterances and all utterances linked to previous utterances of the other. Some children had a high score on narrative complexity, but were mostly oriented at developing their own narrative. Others were relatively more responsive towards the utterances of the other, while their narrative was single scheme. For example, as can be seen in Figure 1, Bart scored high on the narrative complexity dimension, and low at involvement with the utterances of the play partner; Sela had high scores on both dimensions; Imka and Dani had a relative high score on contribution to the other's utterances and a relatively low score on narrative complexity; and Leni had low scores on both dimensions of complexity. The results of these children will be explained in more detail below, with quotations to illustrate the findings.

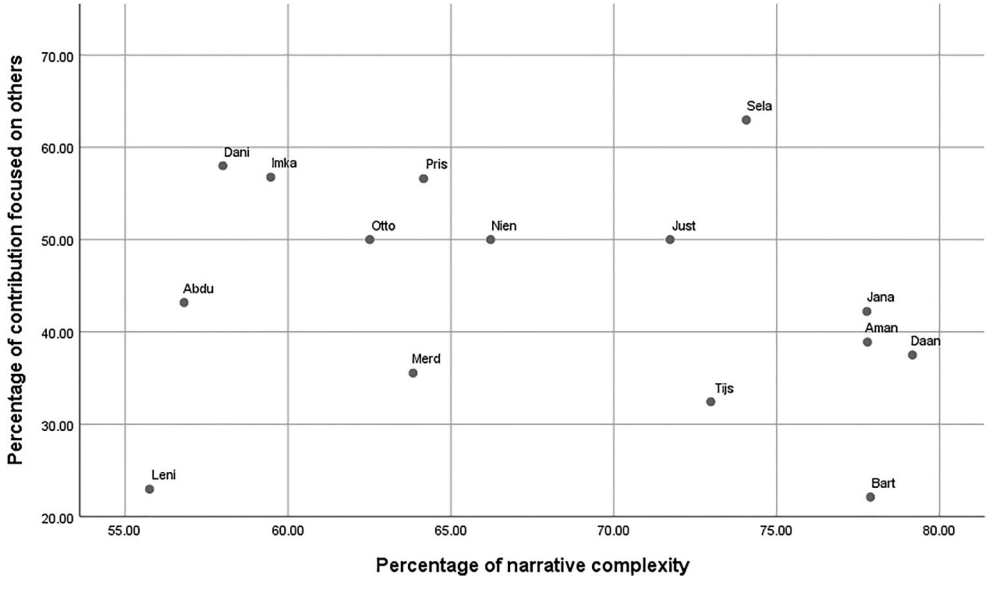

Figure 1. Two dimensions of metacommunication in social pretend play.

Bart scored high on complex narrative utterances, but 59% of these utterances was focused on his own narrative (taken together Self and Self within the turn), and 19% on the other. The mean of all children's utterances in the category of narrative complex, self-oriented utterances was 36%. In the following example, these utterances oriented on the self of Bart are marked with *:

> Bart, Tijs and Boaz are playing at the sand table with animal puppets, Dani comes in.
> Dani:
> *What are you making?*Tijs: *A t- o- wer*.
> Bart:
> *Not a tower but this is ..* (Self interruption) *The father was dead**. (Takes the tiger.) *The caretaker was going to live with them**. *And this one was in the beak**. (Puts an animal in the tiger's beak.) (…)

Imka and Dani had high scores for responsiveness to the other, but these utterances were in 19% respectively 14% coded as Single scheme narrative utterance. The mean of Other-oriented, Single scheme utterances was 12% of the utterances of the 15 children (range 0–26%). Further analysis showed that this cooperation occurred in certain discourse genres, settings and relationships between the children: when children imitated each other in carrying out similar actions (Isia: *I'm going to eat*. Imka: *I'm also going to eat.*; Isia: *Curtains open*. Imka: *Yes curtains open.)*, had disputes in which they kept their position (Merd: *I won*. Ilia: *No, I won!* Merd: *No, I won!*), or were playing in settings like a photographer giving the same commands to different children: (Nien: *No you have to sit down* (..) *Sit on your bottom*.). Dani often adjusted his play partner: he joined his proposals and asked consent to baking cakes at the sand table.

> Tijs: Dani, don't do that.
> Dani: But Tijs, soon it will be beautiful don't you think?
> Tijs: We have to decorate it.
> Dani: And just do this don't you think?

There were also children who had relatively high scores on utterances that were linked to a previous utterance of the other as well as on Complex multi-scheme narrative content, as was the case with Sela (48%). The mean of the 15 children was 32% of their utterances (range 19–48%). However, high scores on both dimensions may reflect a less favourable position on the social dimension in terms of dominance relationships. Sela responded as an authoritarian mother and directed her play partners as children (Sela: *You were sleeping*. Leni: *We went to get to the groceries*. Sela: *No we went to a party and you hadn't noticed it because you were sleeping*.)

Finally Leni had high scores on utterances linked to a previous utterance of the Self / Self within the turn in combination with low narrative complexity (43%). The mean of these Self oriented, Single scheme utterances of the 15 children was 20% (range 9–43%). In the following example Leni is playing with two other girls, Tine and Nien, with animal toys at the sand table. She makes repeated attempts to have her contribution involved in their common play, but fails to get access.

Leni: Mommy mommy mommy where are you? And you came running very fast*.
Tine: Yes but this one, this one was there. (Puts one of her animal toys in the sand.)
Leni: You came running very fast*. (Puts an animal toy next to Tine's toy in the sand.)
Tine: Nien Nien. [Looks at Nien, the other girl].
Leni: You had to come running very fast*. (Addresses Tine). Look, you went to come running very fast*. (Puts another animal in the sand.) Mommy mommy we are stuck. (Moves her animals.) You went to come very fast*.
Tine: This was the water. (Shows Leni something in the sand table.)
Leni: Mommy mommy we are stuck*. Mommy we are stuck*. Now you came super fast*.

Discussion

From our results, it appeared that explicit metacommunication is not unambiguously related to more complex social pretend play. There is a positive relationship between the use of more explicit metacommunication and narrative complexity: more metacommunication goes together with a higher complexity of the narrative content of social pretend play. Conversely, there is no correlation between use of more explicit metacommunication and the complexity of contribution: metacommunication may be oriented to a child's own narrative as well as building on the other's contribution. Thus, the quality of the metacommunication in terms of complex cooperation is dependent on its use. With respect to the highest category of the *Peer play scale* of Howes and Matheson (1992), children have to use metacommunication at a high level on both dimensions. Our study showed that it is relevant to include the distinction between narrative complexity and building on the contribution of the other in the observation of the cooperation in social pretend play. The different individual profiles of the children underlined this finding.

The relation of the use of more explicit metacommunication and narrative complexity is consistent with Williamson and Silvern's (1992) findings, that 'out of role' metacommunication was decisive in the relation with narrative comprehension of young children. The quantitative results that there was no relation with an orientation to self, self within the turn or to the other, supports the view of Whitebread and O'Sullivan (2012) that metacommunication may have a double function of self – as well as co-regulation. In our qualitative study, we found that the orientation in metacommunication to self or the other is related (1) to different genres of language use like imitation and dispute, (2) to different play settings which may elicit single or multi-scheme narrative structures, and (3) to the social context of play partners in which adjusting to the other, access and dominance play their role.

The teacher's role

There is some controversy about supporting children's pretend play; age and quality of the children's play and the quality of the support of the adult are important components (Johnson, Christie, and Yawkey 1999; de Haan 2012). There is little insight into the teacher's use of metacommunication in pretend play. Slot et al. (2017), Whitebread and O'Sullivan (2012), Whitington and Floyd (2009) and Williamson and Silvern (1992) suggested that teachers should support social pretend play and metacommunication.

Our results showed that teachers should take into account the narrative and the social dimensions of metacommunication.

Regarding the narrative dimension, sustaining explicit metacommunication seems to be useful, in particular for children whose narrative skills are low (Williamson and Silvern 1992). More explicit metacommunication makes characteristics of narrative structures (roles, setting, development of the plot) transparent, and this kind of language may support and strengthen narrative experiences. For the further school career of children this may be relevant, since oral narrative development appears to be related to later written narrative competencies (Pinto, Tarchi, and Bigozzi 2016; Stagnatti and Lewis 2015). However, there is still little insight in (effects of) the teacher's support. Johnson, Christie, and Yawkey (1999) used a metaphor of the theatre to indicate ways of sustaining pretend play, like the role of stage manager making suggestions from outside the frame, and co-player by taking a role within-frame. Case studies showed that teachers switch between these kind of roles depending on the age, play experience, involvement in play and language development of the children and situational characteristics (Haan 2012). This may mean, as was also suggested by Whitebread and O'Sullivan (2012), that the kind of metacommunication to sustain the narrative dimension is also dependent on the specific constellation of play partners and context, and thus on a sensible teacher.

With respect to the social dimension of the use of metacommunication, support might be relevant for children having mainly solitary play or who develop above all their own narrative in social pretend. However, Doyle and Connoly (1989) found that the more explicit metacommunication did not fundamentally add to perspective taking and theory of mind as compared to enactment. Halliday-Scher, Uberg, and Kaplan-Estrin (1995) found not only that older children are more flexible in the use of metacommunicative strategies dependent on the theme of their pretend, but also that it is this flexibility which is responsible for competent social cooperation. Therefore, teacher's flexibility in sustaining children's pretend play seems to be the most beneficial.

Sensitive and flexible use of metacommunication by teachers is consistent with Sawyer's (1997) view of pretend as improvisation: he considered it as a 'performance' without a script, in which the content develops from moment to moment dependent on the role of the play partner. He found that the *discourse* level between the play partners was more decisive for the use of within-frame and out-of-frame metacommunication than characteristics of the individual child (Sawyer 2003). Sensitivity and flexibility is also the core of Trawick-Smith's (1998) integrated, *responsive* model of sustaining the play of children. Observation and adjustment during play is more effective than carrying out pre-programmed intervention strategies. Therefore, it seems to be more important to focus on the development of the narrative content and the common involvement of the children than consciously paying attention to the use of metacommunicative strategies.

There are a number of limitations to this study. Firstly, it is based on observation of a small number of children. This did not enable us to study the use of metacommunication related to age and play context. Our findings about the function of metacommunication with regard to genre, play settings en relationships between play partners is only exploratory and deserves further investigation. Secondly, we used Childes as a software programme to be able to do qualitative as well as quantitative analyses. An issue in analysing the variable of contribution was that in the Childes analysis it is not possible to take the turn as a whole as unit of analysis. We solved this by adding a third value

'Self within the turn' to the values of building on the utterance of Self and Other. Likert observation scales to evaluate the turn as a whole may have been a solution, but have as disadvantage that the number and nature of utterances within the turn may differ, and so they are more coarse than a fine-grained analysis of separate utterances as in the Childes analysis. The course of the discourse in turn taking is difficult to determine systematically with this programme in terms of characteristics of the sequential organisation of the utterances. But Childes enabled us to make profiles of individual children and to do qualitative analyses with special attention to children with noticeable scores on the combination of the two dimensions of cooperation in order to understand whether there were any patterns at the discourse level. In this way we found that dispute, imitation, access in play and relationships of dominance affected the nature of the metacommunication.

A final limitation of this study was that we were not able to investigate the role of the teacher. Of the three teachers involved in the classrooms, one teacher was involved in the pretend of one of the children, the second in the pretend of two children, and the third in the play of six children, in total nine of the 22 children who had pretend play. Therefore, we may only suggest implications for the role of the teacher. Further research on the use of metacommunication of the teacher is needed in relation to the development of narrative skills and self – and co-regulation in social pretend play of children.

To conclude, this study contributes to the existing evidence of the role of metacommunication in pretend play of young children. Metacommunication appears to be a multidimensional and multi-functional tool that enables children to express their symbolic thoughts, and to manage their own and their playmates play behaviour.

Note

1. Names of children are made anonymous

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