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Explanatory discourse in young second language learners’ peer play

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ABSTRACT This article investigates young second language learners’ participation in explanatory discourse during peer play in preschools. Twenty-seven 5-year-old Turkish-speaking children in Norwegian preschools were studied in peer play. Characteristics of conversational moves and of various explanatory types (Immediate-activity Explanations, Principle-based, Frame-based and Extended Explanations), as well as how such types were related to children’s academic language skills (receptive vocabulary and word definition skills) in Turkish and Norwegian were examined. Children, both native and non-native speakers of Norwegian, mostly produced explanations spontaneously, while requests for explanations occurred only occasionally. Second language learners who attended play groups with much explanatory peer talk had higher academic language skills. In particular, we discuss whether second language learners with more Principle-based Explanations had higher academic language skills in Norwegian. The contribution of peer play explanatory talk to second language learners’ academically mediated language skills is discussed.

KEY WORDS: conversational moves, explanatory discourse, extended discourse, pretend play, second language learners

This article investigates young second language learners’ participation in explanatory discourse during peer play in preschools. Turkish-speaking children in Norwegian preschools were studied with the aim of exploring how their participation in explanatory peer discourse could prepare them for school-like forms of second language use. Though it is a common observation that young children learn certain aspects of their second language, such as language routines, quickly from peers in play (e.g. Ervin-Tripp, 1986), this study explores the extent to which peer play offers opportunities for the acquisition of more complex second language discursive skills. Previous research on the emergence
of explanatory discourse in young children has typically taken adult–child conversations as a starting point (Aukrust and Snow, 1998; Barbieri et al., 1990; Beals, 1991; Blum-Kulka, 2002; Callanan and Oakes, 1992; Dickinson and Tabors, 2001; Hickling and Wellman, 2001; Hood and Bloom, 1979; Veneziano and Sinclair, 1995). Peer play talk differs from adult–child talk in several ways, of which at least two may be significant for the production of explanations. First, while a core aspect of children’s interactions with adults is asymmetry in knowledge, skill, and power, their more symmetrical interactions with peers might require different strategies of talk management. Second, play talk moves back and forth, into and out of pretence. Bateson ([1955]1972) distinguished between metacommunicative messages and other messages in play and Goffman (1974), building on Bateson, proposed that play can be considered a framed activity, the frame providing a way for participants to interpret each other’s actions. More recent research has offered further evidence of the various explicit and implicit ways in which frames are negotiated in play (Giffin, 1984; Göncü, 1993; Kane and Furth, 1993; Sawyer, 1997). Though frame negotiations are often characterized by intersubjectivity (Göncü, 1993), they also pose problems of interpretation that may encourage explanations. The first aim of this article is to shed light on how these two distinct qualities of peer play talk, symmetry in power and knowledge relations as well as the in-and-out-of-frame movement, can influence the explanations that second language learners offer. More specifically, the article will present a descriptive account of the types of conversational moves that characterize second language learners’ interaction with equals, and explore which aspects of play (inside or outside of the play frame) are explained.

Another aim is to discuss relationships between second language learners’ explanatory talk in peer play and their academic language skills. Explanatory talk (Blum-Kulka et al., 2002) along with ‘science talk’ (Snow and Kurland, 1996) and narrative talk (Ochs et al., 1992), has been considered part of a literate or academic register, and exposure to these forms of talk is assumed to prepare children for literacy and the language demands of schooling. While studies have found significant correlations between children’s explanatory talk participation with adults and various measures of academic language skills (e.g. Dickinson and Tabors, 2001), I am not aware of any study that has researched relations between explanatory peer play talk and academic language skills.

Sociocultural theory focusing on children’s appropriation of discursive tools and practices (Bruner, 1996; Rogoff, 2003) and pragmatic socialization theory (Blum-Kulka, 1997; Ochs et al., 1992) frame this present analysis of second language learners’ explanatory peer participation. The two theoretical positions are related, and though their focus has differed somewhat (for discussion, see Kasper, 2001), their shared notion has been that language acquisition is mediated by discursive tools rooted in broader social and cultural processes. While variations in the opportunities provided for children to participate in peer talk may result in different developmental or socialization pathways, individual learners should also be considered selective participants when entering communication,
shaping the types of interaction they are part of (for discussion, see Pontecorvo et al., 2001). Furthermore, while research anchored in sociocultural and pragmatic socialization theory often has emphasized children’s discursive learning as resulting from various forms of direct interactional support from more competent members of the culture, recent theoretical developments (e.g. Rogoff, 2003) suggest that it is possible, and maybe even likely, that various other types of learning, such as learning by observing and listening in, may be at work in peer interaction.

Background to the study

Explanations have been studied as a source of information about children’s thinking (Barbieri et al., 1990; Veneziano and Sinclair, 1995) and more recently as a specific discursive genre (Antaki, 1994; Aukrust and Snow, 1998; Beals, 1991; Blum-Kulka, 2002). Whether explanatory talk is defined from a socio-cognitive point of view focusing on the extent to which the speaker takes the interlocutor’s perspective into account (Barbieri et al., 1990; Veneziano and Sinclair, 1995) or from a discourse analytic perspective as sequences of talk ‘that problematize a perceived lack of knowledge or understanding to the topic of conversation’ (Blum-Kulka, 2002: 90), explanatory talk may resemble academic forms of talking and text production. Typically, in studies of young children’s explanatory production, the definitions of explanations have taken as a starting point that the explanandum, that which is explained, may be marked in non-verbal ways. Conversely, the explanans, the information provided, needs to appear verbally if a segment of talk is to be considered explanatory (Barbieri et al., 1990; Blum-Kulka, 2002). Extending Blum-Kulka’s discourse analytic approach, explanations are here defined functionally as interactional exchanges characterized by one or more conversational partners making something plain or clear, following from a partner explicitly or implicitly expressing a lack of understanding of the ongoing interaction or from the speaker assuming such a lack of understanding. Explanations may vary in types and complexity and may address topics within the play frame or outside of it, but share the feature that they result from expressed or assumed problems of understanding.

Conversational moves within explanatory talk

Studies have addressed issues of general play access for children using their first (Corsaro, 1979) as well as second language (Cromdal, 2001), while second language learners’ access to participation in peer play explanations as such has not been examined previously. A study of explanatory moves in dinner table conversations in monolingual families with preschool children found that giving an explanation responsively and requesting an explanation were relatively more common strategies for the children than for their parents, while the majority of spontaneous explanations were offered by parents (Aukrust and Snow, 1998).
The conversational framework of questions and answers has also been reported in other studies of adult–child explanations (Beals, 1991), and even been presupposed in studies of young children’s explanatory participation (Callanan and Oakes, 1992). A major component of conversational development is learning to make responses related to the previous turn, and Dorval and Eckerman (1984) and Schley and Snow (1992) have made it clear that children continue to improve in topic coherence through the school years. This article examines how children participate in explanatory talk with equals who may offer less conversational support and fewer interactional slots for the second language learner to fill in. Children may set themselves up as explainers and spontaneously offer explanations, they may request explanations by asking why, what or how questions, or respond to requests for explanations, reflecting and adjusting to peer group conversational norms for cross-turn coherence as well as for what counts as violation of such norms.

EXPLANATORY TALK AND ACADEMIC LANGUAGE SKILLS
A considerable body of research has pointed to the distinction between academic language proficiency or decontextualized/extended discourse language skills, on the one hand, and conversational language skills, on the other (for overview, see Cummins, 2000), suggesting that discursive skills as opposed to conversational skills prepare students for school-based forms of communication and learning. Second language learners with good conversational language skills in their target language, may still fall behind in academic language proficiency, causing difficulties with academic achievement in school. For monolingual children, discourse-level language skills and vocabulary appear as a cluster of skills related to a variety of measures of emergent literacy (Dickinson et al., 1993), similarly, vocabulary has been found to be a particularly strong predictor of reading skills for second language learners (Droop and Verhoeven, 2003). A study by Kurland and Snow supports ‘the notion that definitional skill is related to being part of an academic culture’ (1997: 603). Extending this line of research, the present study investigates relationships between explanatory peer talk participation and academic language skills (receptive vocabulary and word definition skill). In sum, the study addresses the following three questions:

1. What characterizes second language learners’ conversational moves within explanatory peer play talk?
2. Which aspects of play are addressed in their explanations with peers?
3. How does second language learners’ participation in various types of explanatory talk relate to their academic language skills?

Method
PARTICIPANTS
Twenty-seven children (15 boys and 12 girls) participated in the study. The target children had Turkish as their first language and Norwegian as their
second. They were recruited from 17 different classrooms in 12 public pre-

schools, offering full-time or part-time care and located in the multicultural

neighbourhoods around the children’s homes. The children were attending the

final or prefinal year of preschool, had a mean age of 5;2 years (range 4;3–6;2)

and a minimum of eight months of preschool attendance when observed.

Norwegian was the common preschool language, but the classes observed served

many children from homes where a language other than Norwegian was spoken.

In the 17 classrooms, 17–100 percent of the children were non-native speakers

of Norwegian. Although these children spoke a variety of other languages, we

focus here only on the Turkish speakers.

**DATA COLLECTION STRATEGIES**

**Observing peer play**

Each target child was videotaped in preschool for 30 to 60 minutes of peer play
during the time slot typically considered ‘free play time’ in Norwegian pre-
schools. With the exception of two children who wanted their teacher in the
room while they were being videotaped, teachers were not present, but appeared
occasionally to resolve a conflict or give a message. No attempt was made to
organize playgroups, with the following exception: as the focus was on the target
children’s second language explanatory talk, care was taken to ensure that
the playgroup included at least one non-Turkish-speaking child. Children typi-
cally played with close friends of their choice. Playgroups had between two
and eight participants, with an average of 4.6 participants (SD = 1.78) (including
in the count participants offering more than five utterances without neces-
sarily staying for the entire play session, but excluding children passing by).
The mean relative frequency of target child utterances to total number of utter-
ances in the transcript (participation index) was 28.6 percent (range 5.0–53.1
percent).

For each target child 20 minutes were selected for transcription. Videotaped
peer talk conversations were transcribed into computer files using the transcrip-
tion conventions of the Child Language Data Exchange System (MacWhinney,
1991). Utterance boundaries were based primarily on intonation contour, and
secondarily on pause duration. Contextual information needed to understand
the interaction was included in the transcripts. Transcription was limited to
utterances in Norwegian. A single utterance in Turkish was marked, but not
transcribed. Longer stretches of talk in Turkish and accompanying play activities
were described in the transcript contextual information without any attempt to
distinguish utterances in Turkish. Adult utterances were included in the original
transcripts.

The total number of transcribed utterances was 6,463 with a mean of 239.4
utterances (range 19–423) per transcript.1 The target children contributed a
total of 1,928 utterances with a mean of 71.4 utterances (range 1–196) per
transcript. Teachers participated in 16 transcripts, offering in total 331 utter-
ances. Developing procedures for identifying and categorizing various types of
explanatory talk as well as conversational moves were part of the analytic process and are described more fully below.

**Identifying academic language proficiency**

To identify academic language proficiency, the children’s receptive vocabulary and word definition skills were assessed in both languages using translated versions of the following instruments. Receptive vocabulary skills were measured with the Peabody Picture Vocabulary Test – Revised (Dunn and Dunn, 1981). For this task, the children were shown panels of four pictures, the assessor named one of the pictures, and the children were asked to point to the picture that matched the word said by the assessor. A total of 57 items out of the first 62 were administered to the children. Five items were omitted either because of their cultural inappropriateness or dialectical variation. To assess word definition skills the children were given the Word Definition subtask from Reynell Developmental Language Scales, administered and scored according to the manual (Hagtvet and Lillestølen, 1985). The children were asked to define eight familiar words (book, dress, towel, wash, sleep, hungry, cold, last) using the prompts of ‘What is –?’ or ‘What does – mean?’. Each word definition was coded on a scale of 0 (no or irrelevant definition) to 2 (definition focuses on important function or reason, offers a superordinate concept etc), with a maximum possible score of 16.

All children were tested individually in both Turkish and Norwegian at school. The tasks were presented by a native speaker in each language, and sessions in the two languages were separated by at least a day.

**Reliability**

The reliability of explanatory type categories and conversational moves categories was checked for six transcripts with a second scorer who was unaware of the specific expectations of the study. For the explanatory type categories the observers agreed overall in 88.5 percent of the cases. The second observer agreed with the first in 90.5 percent of Immediate-activity Explanations, in 79.1 percent of Principle-based Explanations, in 86.2 percent of Frame-based Explanations, and in 93.6 percent of Extended Explanations (for explanatory types, see below). For the conversational moves categories observers agreed in 95.2 percent of the cases.

**Results**

**IDENTIFYING EXPLANATORY TALK**

Explanatory talk emerged in a variety of formats, topics and participation structures. Minimally, an explanation occurred when a child requested an explanation (‘hvorfor kommer du?’ / ‘why are you coming?’) or made some connection (between events, actions, objects) clear to another child (‘når noen kommer # rop til meg ok # jeg kan slå dem’ / ‘when somebody comes # shout to me ok # I can hit them’). An explanation was, however, rarely a simple utterance, but an
interactional achievement occurring across speaker turns. To save space, some examples below are excerpted from longer stretches of explanatory talk. A typical instance of explanatory talk is seen in Example 1 in which the target child Kamil requested an explanation by asking a ‘why’ question:

**Example 1** Target child Kamil (m, 4;10) and peer Erik (m, 5)

(1) Kamil: Vi er venner. We are friends.
(2) Erik: Ja. Yes.
(3) Kamil: Hvorfor kommer du og dreper meg? Why are you coming to kill me?
(4) Erik: Nei jeg ekke dreper. No I not kill.

The next example illustrates similarly an occurrence of a causal explanation established through the use of ‘because’:

**Example 2** Target child Eren (m, 5;9) and Pål (m, 5)

(1) Pål: Jeg ekke vennen din. I (‘m) not your friend.
(2) Eren: Jeg gidder ikke # fordi du er så barnslig. I don’t care # because you’re so childish.

Though the connecting of events by terms such as ‘why’ (Example 1, line 3), ‘because’ (Example 2, line 2), ‘so’, ‘if’, and ‘then’ and a range of variations on these terms were unambiguous indicators of explanations (Blum-Kulka, 2002; Hickling and Wellman, 2001; Hood and Bloom, 1979), it seemed important to include a broader set of relations to get a full picture of children’s explanatory talk. Stretches of talk appearing as responses to explicit or implicit questions of ‘what’ or ‘how’ qualified as explanations (Barbieri et al., 1990; Beals, 1991). Consider the following excerpt:

**Example 3** Target child Okan (m, 4;9) and Lise (f, 5)

(1) Okan: Hva gjør den her a # hva gjør dette slottet her? palace doing here?
(2) Lise: Det er et lite slott. It’s a little palace.

Furthermore, extending Blum-Kulka (2002) and Blum-Kulka, Hamo, and Habib (2002), talk appearing as responses to accusations and complaints, justifications in the context of refusals and denials, and talk embedded in narratives to explain play role characteristics and activities qualified as explanations (for a further discussion of explanations as justification in early mother–child talk, see also Veneziano and Sinclair (1995) and for examples of explanations as ‘oppositional talk’ in peer conversations, see Corsaro, 1994).

Straightforward symbolic description, as in the following example, did not qualify as explanations: ‘bomber/ snart sprenger jorda her oppe/ ja # nå sprenger det om et sekund/ nå må vi gå ned/ vi må flytte/ her er bombene’ (‘bombs/soon the earth’ll explode up here/ yes # it’ll explode in one second/ we have to go down now/ we have to run away/ here are the bombs’). Negations per se were not included in the set of explanations, while negations that were justified in some way by the speaker often appeared as an explanation. e.g. ‘nei nå hu babyen # jeg sa hu fikk lov å være’ (‘no now she the baby # I said she could be’).
The initial coding of explanatory talk identified 347 segments of explanatory talk. Excluding segments with adult explanatory contribution reduced the data corpus to 327 segments (where target children participated in 199), with a mean of 12.1 segments per transcript (range 0–27), on which the analysis below is based. Explanatory utterances within each segment were then coded for conversational move and explanatory type. Only utterances contributing substantially to the explanation were coded, leaving out clarification requests, simple confirmations, negations, repetitions, topically unrelated utterances, etc. The resulting number of utterances coded for conversational move and explanatory type was 1,060 (0–87) for all participants, with a mean number of 39.3 explanatory utterances per transcript. Target children offered 275 (range 0–37) of these utterances, with a mean number of 10.22 utterances per transcript.

What characterized conversational moves within explanatory peer play talk?

Conversational move categories distinguished spontaneous explanations, responsive explanations, and explanatory requests:

1. **Spontaneous explanations**: the speaker gave an explanation spontaneously, without a request from another speaker (see Example 1, line 1; Example 2; Example 5, lines 3 and 4; Example 7). Children occasionally introduced utterances with a ‘why’ without seemingly inviting a conversational response (no pausing, no utterance structure or rising intonation pattern typical of questions). These occurrences were coded as spontaneous explanations and used in the final section of the article to discuss how children can use words as tools to mark an utterance as explanatory. Proposed explanations (proposing an explanation while seeking confirmation) (see Beals, 1991) appeared very infrequently and were included in the giving spontaneous explanation category.

2. **Responsive explanations**: the speaker responded to a request or proposal, giving an explanation that had been requested by another interlocutor, or confirming or denying an explanation proposed by another interlocutor (see Example 1, line 4; Example 3, line 2).

3. **Requesting explanations**: the speaker directly asked for an explanation as seen in Example 1, line 3; Example 3, line 1 and Example 6, line 4.

For all participants as well as for target children specifically, spontaneous explanations were most common, characterizing 85.9 percent of explanatory utterances for all participants and 81.5 percent for target children. For all participants, 9.3 percent of explanatory utterances were requests while 4.8 percent were responsive. For target children, 11.6 percent of all explanatory utterances were requests with 7.2 percent being responsive. Compared to adult–child explanatory interaction in which children typically receive conversational support from adults creating participatory slots through questions, the peer
Conversations observed in this study thus offered little interactional support in getting a turn. Studies of topic coherence have found large developmental differences in the extent to which peer talk is related to topics at hand, in the strategies children use to enter conversation, the nature of the relations among turns and the ways cross-turn relevance is marked linguistically (Corsaro, 1979; Dorval and Eckerman, 1984; Garvey, 1975; Göncü, 1993; Göncü and Kessel, 1988; Schley and Snow, 1992). In the present study children became participants in explanations mostly through their spontaneous and self-initiated contributions, with peer conversational norms reflecting a willingness to accept most utterances as relevant. For example, when an explanatory slot was created by the use of ‘why’, ‘what’ or ‘how’ questions, the children were never observed to explicitly challenge the relevance of even weakly coherent responses. Consider, for example, the following requests for explanations: in Example 1, the child’s request (line 3) received an only vaguely coherent response (line 4), and in Example 3, the request (line 1) did not receive an immediately coherent response. Similarly, the coherence of explanations established through the use of various connectives, was often low (see Example 2, lines 1 and 2). Children became participants by taking a turn, not by being offered one. The target children with higher explanatory production (in relative frequency of explanatory utterances in the child’s talk) \((M = 11.4, SD = 10.08)\) also had a higher participation index \((M = 28.6, SD = 14.22)\) \((r = 0.49, p < 0.01\) when controlling for number of participants in play), suggesting that peer interaction in particular afforded participatory opportunities for children with discursive skills. The conversational pattern of mostly spontaneous contributions seemed, on the other hand, to limit the participation of children with less discursive proficiency.

**Which aspects of the play were addressed in the explanations?**

In developing explanatory type categories, the notion was to identify various levels of explanatory complexity. Four explanatory types were established.

**Immediate-activity Explanations**

This category included explanations of actions, objects and events within the here-and-now activity (applies to both utterances in Example 3). It included explanations offered in-frame within pretend play as well as other utterances anchored within the immediate activity.

**Principle-based Explanations**

This category was distinguished from Immediate-activity Explanations by making an explanatory link to a principle, rule or concept, and was distinguished from the Frame-based and Extended Explanations described below by its anchoring within the immediate activity frame. Examples 1 and 2 above both revolve around the concept of friendship (as many explanations did). In Example 1, lines 1 and 3, by referring to their friendship the speaker requested an explanation for why the peer (in the role of an animal) appeared to be killing him. In Example 2,
line 2, lack of friendship is explained by referring to the other’s childishness. Principle-based Explanations seemed important enough to include in a separate category in order to capture types of peer explanations that may support children’s acquisition of academic language skills. Consider also the next example in which the target child Okan defended a third child who was accused by Okan’s interlocutor (Example 4, line 1) of using too many papers, pointing both to the third child’s right to make a gift, thus using paper (line 2), and to the accuser’s similar right to use paper, being the boss (line 3):

**Example 4** Target child Mehmet (m, 6;2) and Okan (m, 6)

1. Tor: Dere bruker opp alle arka dere. You’re using up all the papers.
2. Okan: Jammen han han må jo få lov å lage gave. But he he must be allowed to make a gift.
3. Okan: Du har jo fordi du er jo sjefen. You have because you’re the boss.

Segments of explanatory talk would typically include both Immediate-activity Explanations and Principle-based Explanations as seen in the next example in which utterance 4 was regarded as an Immediate-activity Explanation, establishing a link between an activity request (take your shoes off) and the speaker’s own activity, while utterance 3 was considered an instance of a Principle-based Explanation, by establishing a link between the activity request and a more general principle (no shoes in beds):

**Example 5** Target child Meral (f, 5;6), Lise (f, 5) and Sukai (f, 5)

1. Lise: Legg deg ned. Lie down.
3. Lise: Du kan ikke ha sko oppi her. You cannot have shoes in here.
4. Sukai: Du kan ta av skoa # jeg ta av mine. You can take your shoes off # I take off mine.

**Frame-based Explanations**

Though framing of pretend play often appeared smooth (Göncü, 1993), framing occasionally was characterized by disagreement or lack of shared understanding which might result in explanatory activity. The category Frame-based Explanations was established to capture explanatory utterances that referred to framing per se. Former studies have suggested a variety of markers on which to base identification of framing: the use of prosodic features, referential and stylistic markers and verb forms such as past tense to indicate transformation (Auwärter, 1986; Garvey, 1993; Garvey and Kramer, 1989), as well as certain features of sentence and turn construction beyond the lexical level (Garvey, 1993). Whether an explanatory utterance was offered in-frame (Immediate-activity Explanation) or commented on the framing itself could typically not be determined by a single linguistic or communicative marker, but by a cluster of such markers. Included in Frame-based Explanations were explanatory utterances explicitly referring to the pretend activity, as in Example 6, lines 1, 4 and 5:
Example 6 Target child Sertab (f, 5;6), Melissa (f, 5) and Siri (f, 5)

(1) Melissa: Da vil ikke jeg ha ## jeg ække mamma! Then I don’t want ## I’m not mummy! (throws the bag)
(2) Sertab: Nei # vi skal # sånn. No # we’ll # like that.
(shows how to wear the bag on the back)
(3) Melissa: Ja det er ryggsegg. Yes it’s a backpack.
(4) Siri: På lat? Pretend?
(5) Melissa: Ja det er ryggsekk på lat. Yes it’s a pretend backpack.

Also included in this category was metacommunicative talk in the form of narratives serving to explain the activities and motives of pretend play roles (see indicators of explanatory talk above). In Example 7, utterances 1, 2 and 6 were all considered Frame-based Explanations, explaining the expected activity of the pretend play role figures. Utterances 10, 11, 12, 14 and 15 provided further explanatory information that helped orchestrate role activities and play themes:

Example 7 Target child Gül (f, 5;5) was present but not participating, peers were Vilde, Anne and Rita, all 5-year-old females and Norwegian native speakers

(1) Vilde: Nå var det morgen. Now it was morning.
(2) Anne: Vi sov enda. We still slept.
(3) Vilde: Jeg sov enda. I still slept.
(4) Rita: Men ikkje jeg men ikke jeg. But not me but not me.
(5) Vilde: Jeg gjorde det. I did it.
(6) Vilde: Pusen og mamma de var våken. Pussy and mommy they were awake.

For three utterances the children mentioned persons awake; the little sister, the big sister
(10) Anne: Mamman de ekke våken tidlig Mommies they not awake early. 
(11) Vilde: Nei de noen barn de de våkner No they some children they they wake kjempefort. really quick.
(12) Anne: Ja og det gjør jeg på tidlig. Yes and I do early.
(13) Vilde: <jeg og> [>] Me too.
(14) Anne: <voksne> [<] de vil sove litt til. Grown ups they want to sleep a bit more.
(15) Anne: Det vil jeg og da må jeg ha dukka mi. I want to do that too and then I have to have my doll.

Extended Explanations
Children occasionally offered explanations that extended the present play activity. Included in this category were utterances that neither related to the ongoing activity nor to the framing of pretend play, as for example the child making an explanatory link between his ongoing activity of drawing and a later event: ‘jeg har tegna den # jeg skal lage en gave til mamman min og Marie for jeg skal til henne i dag # mamman min’ (‘I’ve drawn that # I’m going to make a present for mommy and Marie because I’m going to her today # my mommy’).

The primary distinction thus made was that of offering/requesting an explanation within the immediate activity (considered to be a less complex type) as opposed to relating the explanation to a principle or rule of some kind, to the play frame, or to an event in distant time or space (considered to be more complex
While Frame-based Explanations presupposed pretend play, the other types applied to any play activity.

For all participants, 505 utterances or 47.6 percent of all explanatory utterances appeared as Immediate-activity Explanations (see Table 1), whereas 209 utterances (19.7 percent) were Principle-based, 286 (27.0 percent) were Frame-based and 60 (5.7 percent) were Extended. For target children in particular, 147 utterances or 53.5 percent were Immediate-activity Explanations. 58 utterances (21.1 percent) were Principle-based, 56 (20.4 percent) were Frame-based while 14 utterances (5.1 percent) were considered Extended. Approximately half of all explanatory utterances for all participants as well as for target children thus appeared as Immediate-activity Explanations. Noteworthy, for all participants as well as for target children, on average half of all utterances represented a more complex type of explanations, referring to a principle or rule, negotiating the pretend play frame or extending the here-and-now situation. The variation between groups as well as children was considerable, and while some target children had all of their utterances within the Immediate-activity Explanations, seven target children had more than 60 percent of their explanatory utterances within the more complex types Principle-based, Frame-based and Extended Explanations. The relative frequency of complex explanations in target children’s talk correlated with the relative frequency of complex explanations on group level (r = 0.71, p < 0.001), suggesting that producing complex explanations was a highly interactive achievement for these second language learners.

**How did the second language learners’ participation in various types of explanatory talk relate to their academic language skills?**

In this study, the target children generally performed better in Turkish than in Norwegian. The mean value of their receptive vocabulary in Turkish was 43.3 (out of 57 tested items) (range 28–56, SD = 7.15) and in Norwegian 33.19 (range 11–54, SD = 10.14). On the word definition task the children received a mean of 9.27 in Turkish (range 1–15, SD = 3.45) and 5.04 in Norwegian (range 0–15, SD = 3.78). The scores for receptive vocabulary and word definition skills were correlated in Turkish (r = 0.67, p < 0.001) and Norwegian (r = 0.71, p < 0.001), indicating that children who were able to provide a word definition were more likely to have a larger receptive vocabulary (for a similar report on

**Table 1. Sum and range of utterances in explanatory categories**

<table>
<thead>
<tr>
<th>Types</th>
<th>All participants</th>
<th>Target children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate-activity</td>
<td>505 (0-49)</td>
<td>147 (0-22)</td>
</tr>
<tr>
<td>Principle-based</td>
<td>209 (0-23)</td>
<td>58 (0-10)</td>
</tr>
<tr>
<td>Frame-based</td>
<td>286 (0-70)</td>
<td>56 (0-18)</td>
</tr>
<tr>
<td>Extended</td>
<td>60 (0-15)</td>
<td>14 (0-9)</td>
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<td>Sum</td>
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</tbody>
</table>
correlation between receptive vocabulary and word definition skill in the second language, see Vermeer, 2001). Though Ordóñez et al. (2002) did find that for somewhat older children first language word definition skills predicted similar skills in the second language, in this sample no significant correlation was found between the children’s receptive vocabulary or their word definition skill across the languages, suggesting that children with high vocabulary skills or word definition skills in one language did not necessarily have similarly high skills in the other language.

The relative frequency of explanatory utterances in the target children’s talk was highly positively correlated with their academic language skills in Norwegian (as measured by vocabulary skills, $r = 0.73$, $p < 0.001$ and word definition skills, $r = 0.73$, $p < 0.001$), but not in Turkish (see Table 2). The raw frequency of explanatory utterances produced by the target children also correlated with their academic language skills in Norwegian (as measured by vocabulary skills, $r = 0.73$, $p < 0.001$ and word definition skills, $r = 0.66$, $p < 0.001$ when controlling for number of participants in play group) as well as with their vocabulary in Turkish ($r = 0.39$, $p < 0.05$ when controlling for number of participants in the play group). Either way of looking at relationships between explanatory participation and academic language skills, as a ‘density’ measure or as actual production, suggested a strong relationship with academic language skills.

When relationships between specific explanatory types and academic language skills were analyzed, the relative frequency of target child Immediate-activity Explanations (of total explanatory child utterances) showed no connection with academic language proficiency, while the relative frequency of the

### Table 2. Relationships between explanatory talk participation and target child’s academic language skills

<table>
<thead>
<tr>
<th></th>
<th>Receptive vocabulary Norwegian</th>
<th>Word definition Norwegian</th>
<th>Receptive vocabulary Turkish</th>
<th>Word definition Turkish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative frequency of explanatory talk – target children</td>
<td>0.73 ***</td>
<td>0.73 ***</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total number of explanatory utterances – target children</td>
<td>0.73 ***</td>
<td>0.66 ***</td>
<td>0.39*</td>
<td>n.s.</td>
</tr>
<tr>
<td>Relative frequency of complex explanatory types – target children</td>
<td>0.58 **</td>
<td>0.57 ***</td>
<td>0.49**</td>
<td>n.s.</td>
</tr>
<tr>
<td>Relative frequency of Principle-based Explanations – target children</td>
<td>0.49 **</td>
<td>0.62 ***</td>
<td>0.47 *</td>
<td>n.s.</td>
</tr>
<tr>
<td>Relative frequency of complex explanatory types – all participants</td>
<td>0.46 *</td>
<td>0.55 **</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
cluster of more complex types of explanations (Principle-based, Frame-based and Extended Explanations) did correlate with academic language skills: with Norwegian vocabulary, \( r = 0.576, p < 0.01 \); with Norwegian word definition skill, \( r = 0.572, p < 0.01 \); and with Turkish vocabulary, \( r = 0.493, p < 0.01 \). Of the specific types of explanatory talk contributing to this cluster, only target child Principle-based Explanations correlated significantly with Norwegian vocabulary (\( r = 0.49, p < 0.01 \)), with Norwegian word definition skills (\( r = 0.62, p < 0.001 \)) and with receptive vocabulary in Turkish (\( r = 0.47, p < 0.05 \)), while the other two types did not. The reader should remember that the total number of utterances produced by target children within the three types of more complex explanations was very low, and more research is needed to determine the specific impact of the various types to second language learners’ acquisition of academic language skills.

Offering explanations was an interactive achievement, not a solo performance, as seen in the correlation between the relative frequency of complex explanatory types in target children’s talk and in ‘all participants’ talk (see above). It is thus not surprising that relative frequency of ‘all participants’ complexity type explanations was connected to the target children’s academic language skills (\( r = 0.46 \) for target child receptive vocabulary in Norwegian, \( p < 0.05 \), \( r = 0.55 \) for target child word definition skill in Norwegian, \( p < 0.01 \)). Interpretations of this relationship will be discussed below.

Discussion

This examination of explanatory conversational moves, explanatory types, and their relationship to academic language skills, has revealed the following main findings:

1. Children, both native and non-native speakers of Norwegian, mostly became participants by spontaneously offering explanatory utterances, while the question–response framework typically found in adult–child explanations was infrequent.

2. The relative frequency of explanatory utterances overall in the target children’s second language talk correlated with their academic language skills in their second language, but not their first. The relative frequency of explanations addressing a principle, rule or concept showed a positive relationship with their academic language skills in Norwegian (and with vocabulary in Turkish), while simple explanations of the immediate activity did not.

3. The relative production of explanatory talk in target children’s play groups correlated significantly with target children’s academic language skills.

Types of Explanatory Support

The finding that most peer participation results from spontaneous explanatory moves suggests that conversational support for second language speakers’
participation may be less powerful than support provided by the activity framework of the play (Ervin-Tripp, 1986) or by interactional routines (Kanagy, 1999). Conversational support in the form of questions inviting explanatory participation or in the form of scaffolding of explanatory coherence is received quite infrequently from peers. On the other hand, the question–response framework identified in adult–child interaction may itself raise conversational challenges for young second language learners. In a study of monolingual school-aged children Daiute et al. (1993: 44) found that although teachers offered more expert strategies, children typically spoke more when they worked with peers than with teachers, and they ‘not only have the opportunity to talk, but may also be freer to take intellectual risks’. Damhuis has suggested, based on a study of kindergartners, that second language acquisition depends more on self-initiated output than response output. She stressed the importance of ‘active, initiative-rich participation in the interaction that is not restricted by interlocutors but allows learners to initiate the discourse in one or several ways’ (2000: 246).

The theoretical notion developed within sociocultural research of cultural tools captures ways in which acting and talking are culturally and interpersonally mediated (Wertsch, 1998). Children used terms such as ‘why’, ‘how’ and ‘what’ as well as various causal connectives as tools for building logic (e.g. the use of ‘because’ in Example 2). In developing familiarity with the explanatory genre, children may receive support from words that help them establish an explanation even though they cannot necessarily meet the standards of coherence typical of reasoning. The use of various verbal connectives combined with seemingly high peer acceptance of weak conversational coherence allowed children to experiment collaboratively with making explanations, suggesting that one route to explanatory proficiency may be through children setting themselves up as explainers using fairly simple cultural explanatory tools.

EXPLANATORY COMPLEXITY AND ACADEMIC LANGUAGE SKILLS
The second finding supports previous research that has suggested positive relationships between children’s participation in diverse genres of extended discourse, narrative talk, science talk and other literate types of talk, at home and in school and their acquisition of academically mediated language skills (Blum-Kulka et al., 2002; Ochs et al., 1992; Snow and Kurland, 1996). More specifically, such relationships have been reported in preschool children’s exposure to explanations in family mealtime talk and their vocabulary acquisition, between their participation in pretend talk with their mothers and their literacy skills in kindergarten, and between the time preschool children spend in talking to other children during free play in preschool and their literacy-related outcomes (Dickinson and Tabors, 2001). The finding is also consistent with the growing body of research that has examined various relationships between narrative, play, and literacy acquisition (Nicolopoulou, 2002; Roskos and Christie, 2000) and between the simultaneous emergence of references to the
past and explanations (Veneziano and Sinclair, 1995). For example, Ochs and colleagues have discussed the impact of narrative participation in ways that point to similarities between narratives and explanations as tools for thinking and inquiry. Their view is that narratives ‘stimulate critical social, cognitive, and linguistic skills that underlie scientific and other scholarly discourse as they jointly construct, deconstruct, and reconstruct theories of everyday events’ (Ochs et al., 1992: 37). The present study extends previous research by suggesting that it was second language learners’ participation in a specific type of peer play explanation, Principle-based Explanations, that in particular showed relationship to their academic language skills.

**PLAY GROUP EXPLANATORY COMPLEXITY AND ACADEMIC LANGUAGE SKILLS**

Finally, the finding that the target children’s play group explanatory production correlated significantly with the target children’s academic second language skills lends itself to various interpretations. The relationship may reflect ways in which the target children contributed in creating their own discursive environment, so that children who had good explanatory skills initiated explanations more often. On the other hand, to position themselves as explainers, children needed playmates who responded and could make sense of their contributions. All target children had played with the peers they were observed with for at least eight months. Relationships between explanatory complexity on the group level and target children’s academic language skills in their second language may thus also reflect the quality of the second language learners’ discursive experiences in school. While these correlational data cannot confirm that the complexity of group explanations contributes to second language learners’ academic language skill acquisition, they are consistent with such claims.

Needless to say, the statistical relationship between play group explanatory complexity and target child academic language skills did not apply to all children. Three second language learners with low academic language skills and low verbal participation in play did attend groups with much complex explanatory talk (target child Gül in Example 7 being one of these). Recent sociocultural research has suggested various other forms of learning outside of scaffolded participation, such as learning by observing and listening in and by peripheral participation (Rogoff, 2003). Hall has reported that young adult students learning a foreign language are able to modify their own language use through observation and reflection on peers’ talk, suggesting ‘the ability of individual learners to attend to and make use of classroom practices in which their involvement is at best indirect’ (2000: 292). To address questions of whether the peripheral play participation characteristic of some children in this study supported or hindered their long-term acquisition of the second language, longitudinal research is needed, considering whether their peripheral participation was characterized by inclusion or exclusion, as well as the various ways in which the children themselves contributed in shaping the interaction of which they were part.
Though a common observation is that young children learn certain aspects of their second language quickly from peers (Ervin-Tripp, 1986), few studies have researched the extent to which young second language learners participate in more complex forms of language use in peer interaction. Rather, ‘playground language’ has been supposed to differ from ‘classroom language’ in most ways. Cummins has, for example, by referring to Gibbons, argued that language during play is very different from academic ways of using language: ‘Playground language is very different from the language that teachers use in the classroom, and from the language that we expect children to learn to use. The language of the playground is not the language associated with learning in mathematics, or social studies, or science’ (Gibbons, 1991: 3, as cited in Cummins, 2000: 70). This present study suggests, on the contrary, that spontaneous peer discourse may contain fairly complex explanations and that exposure to such may promote second language learners’ acquisition of vocabulary and definitional skills. Future research should explore further possible reciprocal relationships between peer group explanatory talk complexity and second language learners’ academic language skill acquisition, determining learning trajectories resulting from children’s various and specific ways of participating in different types of explanatory talk.

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NOTES

1. The low number of utterances in one target child’s transcript resulted from the child mostly speaking Turkish (one other Turkish-speaking child present), while the other peer, a monolingual Norwegian-speaking child, spoke little.
2. The Norwegian version of the Word Definition subscale of Reynell Developmental Language Scales was taken from Hagtvet and Lillestølen (1985), the Turkish version of the same subscale was translated from Norwegian to Turkish by Kamil Özerk. The Norwegian version of Peabody Picture Vocabulary Test was translated from English to Norwegian by Astri Heen Wold. The Turkish version was translated from English and Norwegian by Kamil and Meral Özerk.
3. Following Hagtvet and Lillestølen (1985), score 2 was used for word definitions focusing on an important purpose or function (TOWEL: to dry someone with), giving a cause or reason (WASH: because you are dirty), offering a synonym (SLEEP: rest), offering a superordinate concept (DRESS: piece of clothing), a negation (LAST: not first) or offering two or more relevant associations (SLEEP: lie in the bed in the night). Score 1 was used for word definitions focusing on a more distant purpose or function (TOWEL: for washing), offering one relevant association (COLD: need to get in), or an example relying on the test word (SLEEP: sleep in the bed). Score 0 was used when the child responded with gestures, repeated the test word (DRESS: is a dress), or offered a private association (TOWEL: with teddy bears on).
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