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# The nature and development of argumentative skills in children: Current research

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### Res Rhetorica

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# The nature and development of argumentative skills in children: Current research

#### **Abstract**

Development of argumentative skills is crucial to the acquisition of a rhetorical competence. The focus of this article is the development of children's use of argument. The article presents a review of research, which indicate that children develop argumentative skills early, already at preschool age. These research show that already the preschool children have considerable skills in the use of argumentation not only as a means of reaching the agreement in *contentious* issues, but also as a tool by which they jointly consider the possibility of acceptance of views expressed.

#### **Key words**

argument, argumentation, children's argumentative skills argument, argumentacja, dziecięce umiejętności argumentacyjne

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#### **Argumentation and opposition**

According to Aristotle: "rhetoric is ... the detection of the persuasive aspects of each matter" (*Rhetoric*, 1355b). It is a kind of useful methodology that can be employed wherever the objective is to solve a controversial issue and to reach agreement through the identification and presentation of pertinent and convincing arguments. In Aristotle's words, "its function is in fact concerned with just those things about which we deliberate" (*Rhetoric*, 1357a) – which are in fact of universal scope and may arise in any discipline. Therefore, Aristotle deems it obvious that "the method intrinsic to the art [of rhetoric] has to do with proofs, and that proof is a kind of demonstration (for it is when we suppose a demonstration to have been given that our credence is greatest)" (*Rhetoric*, 1355a), and so the main purpose of rhetoric is the discovery of credible manners of argumentation. As pointed out by Douglass (1974: 83): "At the core of Aristotelian analysis of rhetorical communication is a notion of 'argument' as deliberative human interaction." Interactive dialogical aspect of argument is strongly emphasized in contemporary theories of argumentation. Without a doubt, argumentative skills are essential for effective communication.

In his classic work, O'Keefe (1982) analyzed the different ways of understanding the term "argument" in the English language, observing that it is variously interpreted by researchers studying the phenomenon of argumentation. First, it is understood as a kind of utterance or a communicative act (argument, - "arguing that"), and, second, it refers to a special type of interaction in the form of dispute or conflict (argument, - "arguing about"). In the first case, O'Keefe points to two aspects of this use of the word: making an argument constitutes a speech act and comprises an assertion that does not necessarily have to be expressed in the utterance, but may be inferred from a clearly presented reason or reasons (that is, arguments) supporting the assertion. By arguing (engaging in a speech act), one implements argument<sub>1</sub>, which may be treated as a product of this activity. The other meaning of the term "argument" (argument<sub>2</sub>) is associated by O'Keefe with interaction in which there is an overt, continuing lack of agreement between the participants. O'Keefe stresses the fact that a statement of opposition made by one of the participants constitutes a "minimal" case for a dispute – opposition may or may not be continued, and, by the same token, may or may not turn into a conflict.

The different definitions of the term "argument" given by O'Keefe make it possible to indicate the basic ways in which argumentation is treated by researchers who are concerned with this issue. They tend to focus on analysis of the process of arguing or on the properties of the argumentation produced as a result of this process. Here, the question arises whether argumentation and opposition (or dispute) are two unrelated phenomena, or perhaps one could identify some relationship between them.

One of the current theories of argumentation accentuates a close link between arguing and lack of agreement between the participants of an interaction. This approach is characteristic of argumentation studies conducted by the American linguists Jackson and Jacobs, who stress the pragmatic nature of argumentation and discuss it in terms of speech acts (Jackson, 1987, 1989; Jacobs, 1986, 1987; Jackson, Jacobs, 1980; Jacobs, Jackson, 1981, 1982, 1983, 1983a). They propose that disagreement between interaction partners creates a problem for conversation, while argumentation is one way of solving it. The provision of arguments fulfills a regulatory function in respect of the occurrence of disagreement, and shapes it once it appears. According to Jackson and Jacobs, the fundamental principle for keeping balance in conversation and for constructing common sequences of speech acts is a preference for agreement (cf. Wootton, 1981). This principle functions not only as a conversation regulator, but also as an assumption made by conversation participants. A situation in which the structure of an adjacency pair consists of a request and compliance is a normal and expected occurrence, while the second element of the adjacency pair (that is, the complying reply following the request) is preferred or unmarked (cf. Levinson, 1983: 332-333), and thus not necessitating a justification or defense. Therefore, a preference for agreement ensures equilibrium in a conversation by the mutual expectation of the participants that neither will question the other's behavior without a good cause. If disagreement appears in a conversation, the participants assume that this must be due to some important reasons. In this way, a preference for agreement limits the scope of the occurrence of arguments to situations in which they are indispensable for maintaining conversational equilibrium.

The occurrence of argumentation is not restricted to the category of statements – it may appear in response to any speech act. Jackson and Jacobs define those acts

that meet with disagreement as arguable acts and claim that they are not limited to a special class of speech acts. Every speech act may be potentially arguable. What gives shape to arguments and defines the lines of argumentation differs depending on the type of speech act that has been questioned, as the arising disagreement does not concern the truth or validity of a statement, but refers to the appropriateness or acceptability of the act performed by the interaction partner. Thus, the argued issues are very often related to the rights and duties, intentions and expectations, or feelings and relations between the participants.

Accordingly, Jackson and Jacobs define argumentation as an extensive sequence of speech acts connected to the occurrence of disagreement. From a functional point of view, it is directed at coping with the disagreement that has arisen or might arise between the participants. Structurally, argumentation is the expansion of the two-element structure of an adjacency pair through sequences of speech acts that may precede it, follow it, or occur within it. A prototypical example of a situation in which an argument occurs is when disagreement arises between participants in a conversation.

In this way, Jackson and Jacobs show in their works that the two ways of understanding the term "argument" defined by O'Keefe do not pertain to different phenomena. The process aspect of argumentation and the discordant nature of the interaction in which the participants are involved are mutually connected. Arguments are provided in order to cope with a situation of disagreement that has occurred or might occur – and thus the situation of disagreement constitutes a venue for argumentation. In other words, all utterances are potentially discordant (arguable), and whether we take recourse to argumentation or not depends on whether we encounter opposition which needs to be overcome. As Snoeck Henkemans (2014: 55) points out in her recent paper on speech act theory and study of argumentation: "Jackson and Jacobs' analysis of conversational argument has made it clear that argumentation in ordinary discourse can be seen as a 'repair mechanism': a means of regulating disagreement over all types of speech act. Their work has shown the importance of taking into account in the reconstruction of argumentation which speech act functions as the arguable speech act, and in which context of practical activity argumentation takes place".

A similar approach to argumentation can be found in the works of van Eemeren and Grootendorst (van Eemeren, Grootendorst, 1984, 1987, 1988, 1991, 2004; van Eemeren, Garssen, 2009; van Eemeren, Grootendorst, Kruiger, 1987), whose conception, elaborated for over 25 years, is undoubtedly one of the best-known versions of the contemporary theory of argumentation. Within their approach, which they call pragma-dialectical, these authors define argumentation as a complex speech act constituting part of a critical discussion aimed at solving a difference in the positions on a given issue adopted by two or more participants. The pragmatic aspect of the approach is manifest in treating argumentation as a complex speech act. Here some differences are visible between Eemeren and Grootendorst's proposition and the speech act theory offered by Austin and Searle. First, argumentation should not be understood as an independent speech act, but it is always related to another speech act expressing the position to which the argumentation refers. Secondly, in contrast to speech acts such as requesting or committing, argumentation usually involves more than one statement (argument), and only all of them taken together make up a line of argumentation supporting or refuting a given position. Thirdly, argumentation as a speech act is characterized by twofold illocutionary (or, as the authors would rather have it, communicative) force. A given statement as a constituent part of argumentation may be at the same time a question or proposal. In order to solve the above difficulties, the authors propose to make a difference between communicative force at the level of sentence and communicative force at the level of text, placing argumentation as a speech act at the textual level, while such speech acts as inquiring, requesting or undertaking – at the sentential level. In the latter case, we would have to do with elementary speech acts, while argumentation, being a speech act at the textual level, constitutes a complex speech act. In their theory, van Eemeren and Grootendorst accentuate the dialectical aspect by interpreting argumentation as part of critical discussion aimed at solving a difference in the stances embraced by its participants. Thus, they refer to the ancient pre-Socratic and Socratic dialectical tradition of solving disputes through methodological discussion between different positions. In such a discussion, doubts could be raised in respect of any point of view by way of providing arguments for and against respective views. The participant whose arguments did not provide sufficiently strong support would give up his stance or, alternatively, the interaction partner whose reservations voiced in respect of a given position were overcome through argumentation would surrender his standpoint.

Argumentation can be treated as the activity of producing arguments supporting or refuting a position concerning a given subject matter (*for* or *against*). Argumentation may refer to positions adopted in respect of issues concerning states of things (facts) and actions (or the manner of their execution). The object of argumentation is to convince somebody (oneself or the other interaction partner) about the possibility of acceptance (*pro-argumentation*) or refutation (*contra-argumentation*) of a position adopted in respect of a given issue.

The above definition stresses the process aspect of argumentation, underlining the intentional and interactive nature of this activity. By offering arguments supporting or refuting a position, argumentation constitutes an attempt to convince somebody to accept that position. Furthermore, argumentation is of interactive nature – it is addressed to the person in relation to whom the persuasive effort is undertaken and whose acceptance concerning a given position we are trying to secure. This person may be the other partner of an interaction, or, possibly, the arguer himself. Finally, argumentation is the activity of offering arguments. In other words, when we refer to argumentation in its process aspect, we have in mind the activity of arguing. In turn, while referring to the effect of the process, we deal with the argumentation which was produced in the process of arguing.

What is characteristic of both approaches to argumentation characterized above is the fact that they are grounded in the context of a difference of opinion that arises during an interaction or in the context of one of the participants voicing a reservation to the effect that a given state of affairs is disputable and it is to be expected that such a difference may occur. In their collective work, van Eemeren, Jackson, and Jacobs (2011: 95) stress that "the important, defining feature of argument is that it occurs as a means of addressing – and attempting to resolve – a difference of opinion by means of exploring the relative justification for competing standpoints." The focus on the relationship between situations of opposition or dispute and the use of argumentation as one of the possible methods of their resolution raises the question of the development of the argumentative ability in the face of disagreement.

#### Conflict, opposition and development of argumentative skills in children

Results of several studies indicate that children develop argumentative skills early. Dunn and Munn (1987) observed the development of the ability to provide justifications in a longitudinal study, analyzing disputes between 43 children (born as second children) and their mothers and siblings (born as first children). Observations were conducted at home when the children were 18, 24 and 36 months old. In the case of 1.5-year-olds, justifications appeared very rarely and exclusively in disputes with their mothers (in 4% of all disputes). A significant increase in the use of justifications by children took place between age 2 and 3, as 3-year-olds used them in 32% of disputes with their mothers and in 28% of all disputes with their siblings.

Investigating the occurrence of justifications in natural child-adult conversations in children aged 2;6 to 4;11, Goetz (2010) found that adults offered justifications more often than children aged 2;6 to 2;11. However, children aged 3 and more offered justifications just as often as adults, typically in conflict situations. After age 4, children most often justified their own utterances (cf. Goetz, Shantz, 1999; Kyratzis, Ross, Koymen, 2010; McWilliam, Howe, 2004).

Similar results were obtained by Barbieri, Colavita, and Scheuer (1990) in a study exploring the development of children's ability to offer explanations. They analyzed the frequency and functions of three types of explanations ("what," "how," and "why") offered by 9 children aged 3 observed during triadic interactions at kindergarten. The children were engaged in spontaneous play, putting together jigsaw puzzles or looking at picture books. The children most often used "why" explanations (78.8%), which served to specify the reason why something happened or why the speaker said what he said. They were typically used in the argumentative function justifying the utterance of the speaker (70.85), while they were significantly less often used to fill an information gap (23.4%).

Orsolini (1990) investigated the influence of the situational context in which oppositional episodes occurred on the children's use of the strategy of justifying one's position to convince the interaction partner. Oppositional episodes between six children observed at kindergarten for 20 min twice a week during seven months (the average age of the children at the beginning of observation was 4;2) occurred in three kinds of context. The first one involved group conversations in which the teacher (not participating actively) occasionally asked the children to justify their opinions by asking the question "why" (this took place only in 6% of all oppositional episodes). The second category included oppositional episodes during the children's symbolic play, and the third one— during spontaneous activity (e.g. drawing, looking at pictures, walking). Apart from the strategy of offering justifications, three other argumentative strategies were identified: communicating disagreement through simple negation ("no"), attempting to persuade the interlocutor to accept the speaker's opinion by attenuating this opinion, and attempting to impose the speaker's opinion by its reiteration or making it more radical.

It turned out that the strategy of offering justifications constituted 31% of all the argumentative strategies applied by the children in all types of contexts for oppositional episodes, and was the most popular in episodes occurring during group conversations and symbolic play, while being less common during spontaneous activity. However, even if we exclude oppositional episodes taking place during group discussions, the frequency of offering justification for one's opinion among the children still remained at about 30%.

Orsolini (1993) also explored children's use of the connective "because" in reference to all the types of argumentative strategies. Her analysis revealed that "because" was most often used in connection to the strategy of offering justifications, even though its frequency was only 20%, which shows that this strategy may be pursued without this connective. Analysis of the frequency of use of the connective "because" during group conversations in material from which oppositional episodes were excluded showed that in almost half of the cases the conjunction

was preceded by negative assertions (e.g. "This didn't grow because...") or reference to some negative events (e.g. "I cried because...," "and then we started to fight because...").

Analyzing adversative episodes, Eisenberg and Garvey (1981) paid special attention to the process of coming to an agreement and the interactive strategies used by children aged 2;10–5;7 for resolving such episodes occurring in the course of their natural activity. An adversative episode is a situation of opposition on the part of one of the interaction partners in response to a request for action, assertion or action of the other. The most effective strategies which led to an agreement were those which took into consideration the other person's perspective. These included: giving reasons or justifications for one's position, offering compromise solutions, or promising an alternative, attractive activity.

Moreover, children used strategies in a manner dependent on and adjusted to the strategy used by the interaction partner. For example, if one child used a strategy that did not provide new information, such as insisting or ignoring, this significantly limited the use of creative strategies by the other child – ignoring most often led to a like reaction on the part of the other person. Results confirming that 5-year-olds do not use strategies randomly, but rather adjust them to their interaction partner's strategies, were also reported by Thornberg (2006), whose study showed that complex strategies were more frequent when the opponent offered a justification, as compared to when the opponent just insisted or used physical aggression.

#### Reasoning together

Many authors (Billing, 1996; Goldstein, Crowell, Kuhn, 2009; Oaksford, Chater, Hahn, 2008; Mercier, 2011; Mercier, Sperber, 2011) claim that reasoning is in fact a fundamentally social and, more specifically, argumentative ability. According to Goldstein, Crowell, and Kuhn (2009, p. 380), "asserting, supporting, and refuting claims is the purpose to which we apply our reasoning skills." Mercier and Sperber (2011), within the framework of the recently founded argumentative theory of reasoning, postulate that reasoning has evolved to serve argumentative ends: finding and evaluating arguments in a dialogic context. Are young children engage in collaborative argumentation?

Rytel (2005; 2009; 2012) analyzed the narrative discourse, and occurring in its course argumentation, in such a form of interaction, in which three partners take part: two co-narrators and one listener (children aged 4 to 7 years). The task of the co-narrators required telling to the peer listener about the content of the watched movie. As a result they could jointly make the picture book illustrating the film. The text constructed in the course of the narrative discourse is the effect of co-operation of all interaction partners. Each participant creates his or her own representation of the watched events and presents it in the narration. Each of the narrators creates also his or her own representation of the means to perform the activity which they are involved in, namely, how to carry on the narration process itself. The process, in which the story is constructed by the peers, is the effect of children's interacting on two levels. They have to negotiate, accept and coordinate their interpretations of the film events (the content introduced by discourse participants, i.e., the semantic dimension of the constructed text). They also have to make decisions as to the way in which their activity is realized (the interactive dimension: who, when and how introduces any given information).

The findings show that the argumentation refers to both dimensions of children's narration activity. However, when there is disagreement between the discourse participants – in the conflict situations – it more often concerns the interactive dimension. Moreover, when the argumentation refers to the rules of interaction in the discourse, it is mostly characterized by a simple structure (proposition + argument) and is constructed individually (proposition and argument occur in the utterances of one discourse participant). It can be illustrated with the following example:

N1 (Girl 6;5)	N2 (Girl 6;7)
Dobra, powiem, może powiemy najpierw, że, ja powiem, że 'OK., first maybe we tell, first that I will tell that'	
	Może wszystko razem powiemy 'Maybe we will tell everything together'
No nie. Nie, będzie bez sensu, bo każda będzie co innego mówiła 'Well, no. No, it makes no sense, cause each of us will tell something different'	

In the above example one narrator (the initiator of the discourse - N1) discredits the other narrator's suggestion on the joint story telling (*No nie. Nie, będzie bez sensu, bo każda będzie co innego mówiła* - 'Well, no. No, it makes no sense, cause each of us will tell something different') and by this she wins the possibility to realize the story telling in the way she prefers.

It turned out that argumentation also occurred in situations, when neither of the discourse partners raises any objections. In such non-conflict situations, the argumentation more often concerns the semantic dimension of the discourse. When the argumentation refers to the content, which is introduced in the discourse, in the non-conflict situations it is still mostly characterized by a simple and individually

preschoolers 'narrative discourse created structure, but in comparison to the conflict situations it is more often constructed jointly and results in the more compound structures. Let's look at another example:

N <sub>1</sub> (Boy 4;8)	N <sub>2</sub> (Boy 4;8)	L (Girl 4;4)
	Przechodzili sobie i on zobaczył, że oni jedzą sobie gruszki i pomyślał sobie: skąd oni wzięli? 'They were passing by and he saw they were eating pears and thought: where did they get them from?'	
No. A on im przecież nie dał 'Yeah. Because he didn't give them'		
		No właśnie, bo oni z tego koszyka wzięli, prawda? 'Exactly, because they took them from that basket, right?'
No 'Yeah'		
	Tak. I oni 'Yes. And they'	I on, i on o tym nie wiedział, prawda? 'And he, and he didn't know about that, right?'
	Tak. I myślał sobie, i myślał, że oni mu chyba ukradli 'Right. And he thought, and he thought that they probably stole them'	

Here, 4-year-old narrators and the listener were interested in the mental state of the protagonist (what the protagonist thought), which was not directly accessible to perception and could only be inferred. It is not an easy task to create a commonly shared interpretation, because internal states are unequivocal, nontransparent for perception. The narrators, when presenting the events from the perspective of the hero whom they describe, relate to states of things which by nature are not certain or necessary, but only possible or probable. In such situations, their discourse resembled one of the three distinctive ways of talking and thinking distinguished by Mercer (1996) based on analysis of the speech of children aged 5–12 working in pairs or small groups on computer-based activities, namely, exploratory talk. Mercer (1996: 369) characterizes it as follows: "Exploratory talk occurs when partners engage critically but constructively with each other's ideas. Statements and suggestions are offered for joint consideration. These may be challenged and counter-challenged, but challenges are justified and alternative hypotheses are offered. Compared with the other two types, in exploratory talk *knowledge* is made more publicly accountable and reasoning is more visible in the talk. Progress then emerges from the eventual joint agreement reached." In exploratory talk, the goal is to enhance understanding of an issue, not to win a debate. Convincing, in such cases, is not really the way of making the partner accept any given position. It is rather the consideration of the possibility to accept it in the process of argumentation.

#### **Conclusions**

In conclusion, it is worth mentioning the conditions which would be favourable for the emergence of exploratory talk in joint educational activities. Mercer (2003: 5) points out that that the following conditions are important:

- i. partners must need to talk to do the task, so their conversation is not merely an incidental accompaniment to it;
- ii. the activity should be designed to encourage cooperation, rather than competition, between partners.
- iii. partners should have a good, shared understanding of the point and purpose of the activity;
- iv. partners should have some 'meta-awareness' of how talk can be used effectively for sharing ideas and solving problems.

The ability to be cooperative discursive partner depends on social as well as linguistic knowledge. Recent studies on the development of pragmatic competence have shown that even small children have a rather sophisticated repertoire of discursive skills. Development of argumentative skills is crucial to the acquisition of a rhetorical competence. Research results presented here document that already the preschool children have considerable skills in the use of argumentation not only as a means of reaching the agreement, but also as a tool by which they jointly consider the possibility of acceptance of views expressed.

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