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Reflections on How Adults Respond to Children's Contributions in Children–Adult Argumentative Interactions

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Abstract

This paper aims to analyze adults' responses to children's argumentative contributions within children–adult dialogic interactions. More precisely, we focus on the phenomenon of children opening subdiscussions within argumentative interactions with peers and adults. This phenomenon occurs when a child problematizes and calls into question some proposition in the ongoing discussion, hence the opening of a subdiscussion is an initiative that comes as unexpected from the perspective of the adult. In this contribution, we examine what happens after a child opens a subdiscussion and how the adult's reaction to such initiatives can shape the development of dialogue. This means that we observe adult behaviour in dialogic interactions with children, given the complexity of the adult's role in such interactions. Drawing on the dialogical approach to argumentation, we present and discuss some excerpts of children–adult subdiscussions at a kindergarten. The data analysis uses concepts and tools from a linguistics-based approach to argumentation, i.e., the pragma-dialectical theory, and it highlights conversational dynamics of children–adult argumentative discourse. The study's contribution is twofold: (1) it presents the important and delicate role of the adult in dialogic children–adult interactions; (2) it shows how the development of children's arguments is intrinsically linked to the flexibility of the discussion space organized by the adult.

Keywords: children-adult argumentation; subdiscussion; discussion space; adult's response; dialogic interactions

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1. Introduction

This paper investigates dialogic interactions between children and adults from the perspective of argumentation. The notion of argumentation, which occupies a central place in this article, is intrinsically linked to dialogic pedagogy, as both emphasize dialogue, critical thinking, and the collaborative and dynamic nature of the learning process. Dialogic pedagogy (cf. Alexander, 2008; Mercer, 2000; Wells, 1999) departs from traditional teacher-centred models of instruction and instead focuses on creating a learning environment where students engage actively and knowledge is co-constructed through meaningful and open-ended discussions. Within such a setting, argumentation becomes central as students are encouraged to formulate and defend their ideas while responding and critically engaging with the perspectives of others.

The following paragraphs outline key theoretical frameworks that guided the present study.

1.1. Defining Argumentation

Some research proposes definitions of argumentation as having the aim of convincing others of the acceptability of a standpoint by means of arguments (see the work developed within the framework of pragma-dialectics, e.g., van Eemeren & Grootendorst, 1984). This persuasive view is often applied to study argumentative discourse between adults, but the focus on persuasion is not entirely appropriate when examining argumentation in children[1]. Indeed, in the data collected, argumentation does not primarily function as a means of persuasion. Rather, adults often seek to help children develop standpoints, justify them, and engage in a critical attitude. For this reason, we favour the following definition of argumentation: "to argue is a form of discursive move in which we do not limit ourselves to expressing or communicating ideas, opinions, proposals, wishes, projects, etc., but we want to justify them, prove them by reasoning. In other words, we commit ourselves to maintaining a critical attitude towards ourselves and the others" (Rigotti & Greco Morasso, 2009, p. 11). When we study knowledge-oriented argumentation (Perret-Clermont et al., 2014, 2015), as in this study, we observe that both adults and children develop argumentative discourse in an attempt to understand and solve a problem without finding themselves in a polemical attitude. From this point of view, children are engaged in the process of constructing knowledge, and adopting an attitude aimed at convincing or persuading others in such a context could be counter-productive for them and hinder the development of their argumentative discourse.

Furthermore, in the literature, it is possible to distinguish between a monological and a dialogical approach to the study of argumentation (for reviews cf. Bubikova-Moan & Sandvik, 2023; Perret-Clermont et al., 2019; Schwarz & Baker, 2017; Rapanta et al., 2013). The monological approach views argumentation primarily as a skill—the ability to produce structurally coherent and logically valid arguments—often studied in abstract or formalized contexts, without considering the interaction in which it happens. The dialogical approach, on the contrary, conceptualizes argumentation as an interactive process embedded within specific social and historical contexts. It emphasizes how arguments are developed, challenged, and even modified through discourse. Our work takes inspiration from this dialogical perspective, which has been acknowledged to be more helpful and effective for understanding children's argumentative contributions (Perret-Clermont et al., 2019).

1.2. Argumentation in Children

The emergence and development of argumentative discourse in children has been the subject of considerable debate. Some scholars in developmental psychology claim that argumentative skills appear relatively late in development (Berkowitz et al., 1987; Golder, 1993, 1996; Golder & Favart, 2003; Kuhn, 1991; Kuhn et al., 1997; Kuhn & Udell, 2003, 2007). These authors have mainly studied the argumentative abilities of children in relation to those of adolescents and adults, and they have shown that children's arguments are poor and gradually improve from childhood to adulthood. Other researchers (Eisenberg & Garvey, 1981; Völzing, 1981; Orsolini, 1993; Orsolini & Pontecorvo, 1992; Pontecorvo & Arcidiacono, 2010; Stein & Albro, 2001; Stein & Miller, 1993; Zadunaisky Ehrlich & Blum-Kulka, 2010), though realizing that argumentation can be mastered in adolescence, maintain that children, even very young ones, are able to participate in argumentative discussions and develop complex arguments.

This very brief overview of the literature[2] highlights a contradiction that may be attributable to differences in research methodology and task design. For instance, Kuhn and colleagues used interviews, questionnaires, group discussions, or item selection at different ages, in which participants were asked to answer questions about social issues (the death penalty, school failure, unemployment, etc.). The method employed by Stein

and Miller (1993), for example, differs: they observed children's argumentative abilities and their development, during negotiation decisions or differences in opinion, in "real-world contexts" (Stein & Albro, 2001, p. 114), i.e., in peer-to-peer interactions or between adults and children in school situations, family interactions, etc., and not through the intermediary of questionnaires or interviews, in which the experimenter asks subjects, for example, "if you were trying to convince someone else that your view is right, what evidence would you give to try to show this?" (Kuhn, 1991, p. 48) or "suppose now that someone disagreed with your view. What might you say to show that you were wrong?" (Kuhn, 1991, p. 151). Numerous studies have indeed shown that the emergence of an argumentative discourse in a given situation is linked to the context in which it is produced (Baucal & Stepanovic, 2006; Perret-Clermont et al., 1991; Schwarz, 2009; van Eemeren, 2009; van Eemeren & Garssen, 2012).

Within this developmental perspective, we also note that very few studies have qualitatively analyzed children's arguments (Meyer, 1992; Pontecorvo & Arcidiacono, 2010; Zadunaisky Ehrlich & Blum-Kulka, 2010). Most studies are indeed quantitative, analyzing the number of arguments (Berkowitz et al., 1987; Golder, 1993) and the frequency of argument use (Golder, 1993, 1996; Golder & Favart, 2003). Some studies have also created (or taken over from other studies) categories for analyzing utterances and arguments (Eisenberg & Garvey, 1981; Golder, 1993; Kuhn & Udell, 2007; Orsolini, 1993; Orsolini & Pontecorvo, 1992). Moreover, with the exception of the work of Kuhn, Golder, and their respective colleagues, few other studies have, to our knowledge, carried out fine-grained analyses of argumentation, i.e., for example, of argument types and their structures.

These methodological variations make cross-study comparisons difficult. Nevertheless, this body of work offers valuable insights into what has been achieved in the study of children's argumentation from a developmental perspective.

Although we will not dwell on this here, research has also been carried out on the study of argumentation in the school context, particularly in the design of argumentative devices[3]. We refer to devices centred on dialogue (e.g., Mercer, 2000; Mercer & Littleton, 2007) and on the creation of debates (Orange et al., 2008). One of the aims of these devices is to allow students to argue and provide justifications to back up their arguments. A third type concerns the development of devices within computer environments (e.g., Andriessen, 2009) in which researchers propose, for example, that students create an argumentative discussion in the form of computerized maps.

We turn now to studies that propose a different understanding of the development of argumentation in children by reflecting, for example, on the conditions that may foster argumentative discourse, such as the presence of adequate space (Bubikova-Moan & Sandvik, 2023; Greco & Perret-Clermont, 2022; Perret-Clermont et al., 2019). This notion of adequate space is interesting to consider in this research, as it sheds light on the argumentative dynamics at stake and their intertwining in adults' and children's roles. Indeed, adults have a crucial and delicate role in creating such a space, where children should be allowed to make their standpoints explicit, develop arguments and counterarguments, and challenge the positions of others, even when their contributions diverge from adult expectations. The adult can occupy different roles throughout an argumentative interaction (Miserez-Caperos, 2017): he or she might formulate doubts or requests for justification, point out conflicts, ask children for clarification, or guide them, thus taking an active part in the discussion. Throughout the argumentative interaction, the adult can oscillate between different roles, depending on the evolution of the discourse. For their part, children play an active role in the interaction, as the adult asks them to mobilize standpoints and present arguments. Some studies (e.g., Miserez-Caperos, 2017) even show that the role taken on by

the adult could intrinsically be linked to that taken on by the child, and vice versa. Their roles thus appear to be closely related, articulating each other in fine detail.

1.3. A Model to Observe Argumentation: The Pragma-Dialectical Theory

Argumentation theory constitutes a broad and evolving domain, with scholars across various disciplines developing frameworks and models to analyze and understand the complexities of argumentative practices. There are various perspectives with which argumentative discourse can be studied (e.g., Toulmin's model or Plantin's framework). While we do not address the differences between these approaches here, we adopt a psycholinguistic perspective that draws heavily on the pragma-dialectical theory of argumentation (van Eemeren, 2018; van Eemeren & Grootendorst, 1984, 2004). This model observes argumentation as a dialogical process where participants present and defend their standpoint(s), and arguments are exchanged with the aim of reaching a reasoned consensus. Pragma-dialectics treats argumentation as a form of communicative interaction that takes place within a specific social and contextual setting (van Eemeren & Grootendorst, 2004, p. 22). This view is particularly relevant to the present study, which examines children's and adult's argumentative moves *in interaction*.

Furthermore, the pragma-dialectical model offers useful analytical tools for reconstructing and analyzing argumentative discourse. In this study, we employ the analytic overview of a critical discussion (van Eemeren & Grootendorst, 2004), an instrument that allows for the visualization of the key elements within an argumentative exchange. These elements include the participants, their standpoint(s), the argument(s) advanced to support the standpoint(s), and the argument structure. Analytical reconstruction often involves transformations (van Eemeren & Grootendorst, 2004, pp. 103–104), as oral discourse frequently contains implicit or omitted components. The goal of these transformations is to identify and make explicit the underlying structure of the argumentation. The analytic overview uses a notational system involving digits and letters to represent this structure. For example, an argument supporting a standpoint "1" is indicated as "1.1". If there is a second different argument supporting standpoint "1", this other argument is displayed as "1.2" (and so on). If argument "1.1" is in turn supported by a further argument, the latter is "1.1.1". Another possible structure is when there is a standpoint "1" and two arguments, which support the standpoint only if taken together. In this case, the two arguments are called "1.1a" and "1.1b"[4].

The analytic overview will be further discussed in the methodological part of this paper (Section 2), where we detail how we analyze children–adult argumentative interactions.

The pragma-dialectical framework is particularly useful for this study because it acknowledges the concept of subdiscussion, which is the focus of the present study.

1.4. Children's Subdiscussions as Unexpected Contributions to Children–Adult Dialogic Interactions

The concept of subdiscussion in an argumentative discourse has been little described in the literature[5]. It can be defined as "a discussion embedded within another discussion, which emerges when "something" that was presupposed in the ongoing discussion is problematized and put into question by one of the discussants" (Angiolini, 2024, p. 39). In other words, it can happen that, within an argumentative discussion concerning a certain issue[6], any participant can problematize some (implicit or explicit) proposition in the ongoing discussion and open a new possible discussion (i.e., a subdiscussion), which will concern a new issue (i.e., a sub-issue) that is different but related to the issue of the main discussion.

In the context of children–adult argumentation, recent research has noted how children frequently happen to problematize and call into question adults' arguments, whether they

are their parents' (Schär & Greco, 2018; Schär, 2021), experimenters' (Miserez-Caperos, 2017), or their teachers' (Mehmeti & Perret-Clermont, 2016; Angiolini, 2024) arguments. These subdiscussions might, at first glance, appear to be unrelated to the main topic proposed by the adult. However, some research (e.g., Miserez-Caperos, 2017) has shown that subdiscussions often reveal children's capacity for complex and nuanced reasoning that is, in fact, relevant to the main issue. Studying these subdiscussions is crucial, as they offer insight into the child's understanding and sense-making, which may diverge from the adult's expectations (Angiolini, 2024, p. 169). When a child initiates a subdiscussion, it typically comes as an unexpected move from the adult's point of view.

This can become challenging in a dialogic interaction where the adult holds a guiding role and is responsible for choosing the threads of discourse to develop. The analysis of this perspective shows what happens after a child opens a subdiscussion and how adults respond to these initiatives (Angiolini, 2024). In some cases, adults do not pursue children-initiated subdiscussions, "either because of events in the classroom that divert their attention from the subdiscussion, or because they make a choice to pursue the activity they planned" (Angiolini, 2024, pp. 135–136). In other cases, however, adults take up children's subdiscussions in different ways: they may support the child's viewpoint, oppose it (meaning that they argue against it), question it (potentially opening another subdiscussion), or participate without taking a stand, thus mediating between children's different points of view (Angiolini, 2024).

1.5. Present Study

This paper focuses specifically on the phenomenon of argumentative subdiscussions. To our knowledge, very little research has examined this particular aspect of argumentative discourse. Our objective is to observe the dynamics of subdiscussions, with a particular emphasis on the adult's behaviour and its impact on the unfolding of the argumentative dialogue. By doing so, we hope to provide insights into the crucial role of the adult in children–adult dialogic interactions and into the challenges that can occur within such exchanges. In concrete terms, we will analyze argumentative interactions between adults and children, identify the emergence of subdiscussions, and examine these using the tools of pragma-dialectical theory. Our specific research questions are as follows: How do adults respond to children's subdiscussions? What role does the adult play in this dialogical interaction when a subdiscussion is opened?

2. Methods

2.1. Data Source

In order to observe adults' responses to children's subdiscussions, we analyze and discuss excerpts taken from the corpus of subdiscussions created by Angiolini (2024) within the framework of her doctoral dissertation. The corpus consists of 32 h of video recordings of discussions between children and their teachers and educators during their activities at the kindergarten. More precisely, the participants in the discussions were 14 children aged from 3 to 6, one teacher, two educators, one OPI collaborator[7], and the researcher[8]. The activities recorded were of different kinds: they could be discussions concerning a topic more or less defined by the teacher (such as a moral dilemma), the reading of a book, the viewing of a short film, playing activities with rules given by the adult, or free play.

The video recordings have been transcribed following the GAT2 conventions (Selting et al., 2011). After the transcription, the corpus took the shape of thirty-eight Microsoft Word files, containing around 232'468 words. Within each transcript, the researcher identified episodes with the occurrence of subdiscussions opened by children. The data are in

Italian, since the kindergarten collaborating in the research was located in Italian-speaking Switzerland, but an English translation is also provided.

For this paper, we selected three cases of subdiscussions that are particularly illustrative of different types of adults' responses to children's contributions that we identified in the whole corpus (see Section 3). Certainly, these numbers will not allow us to make generalizations. Our purpose through this qualitative study is to analyze the children–adult argumentative interactions and explore the role of the adult. The three examples were taken from different video recordings, so the topic of discussion was different; however, the type of activity was the same: they were all discussions started by the teacher on a specific subject.

2.2. Qualitative Analysis

In this study, we adopt a dialogical approach to argumentation, meaning that we do not consider argumentation as "an isolated product" but as "an event situated socially and historically in a context" where "there are issues, mutual expectations, social or professional roles, interactions rules, and scripts" (Perret-Clermont et al., 2019, p. 213; see also Section 1.1). Our interest in examining adults' responses to children's subdiscussions relies on the fact that subdiscussions are unexpected contributions in an interaction that is created and managed by the adult. Hence, it is relevant to study how adults react in these critical situations, whether or not they give children space, how they do it, and how dialogue is developed.

We also borrow concepts and tools from a linguistics-based approach to argumentation, namely pragma-dialectics (van Eemeren & Grootendorst, 1984; van Eemeren, 2018). This model, as anticipated, is helpful for our study since it allows us to observe argumentation as a social communicative interaction that takes place within a specific context (van Eemeren & Grootendorst, 2004, p. 22), which is coherent with our dialogical perspective (cf. Sections 1.1 and 1.3).

From a procedural point of view, argumentative episodes with the occurrence of a child-initiated subdiscussion have been underlined in the transcripts of the video recordings. Then, we used the analytic overview of a critical discussion (van Eemeren & Grootendorst, 2004) in order to reconstruct the argumentative interaction under examination. As introduced in Section 1.3, the strength of this analytical tool is that it allows one to visualize all pertinent elements in an argumentative exchange. Together with the identification of the parties of the discussion, the standpoints, the arguments, and their structure, we also indicated the issues and the sub-issues, so to be able to distinguish between discussion and subdiscussion(s)[9]. Digits are used to distinguish standpoints and arguments, while letters indicate issues. Finally, an arrow is used to link the sub-issue to the argument that is challenged by the child opening the subdiscussion.

In the figure below (Figure 1), we provide a schematic example of this adapted analytic overview to help the reader with the notation.

After reconstructing the argumentative interaction and identifying the child-initiated subdiscussion, we focused on the adult's moves, meaning how he or she responded to the child's initiative, whether, for example, the subdiscussion was supported or not, and how. Also, we observed how the adult's response shaped the continuation of the interaction.

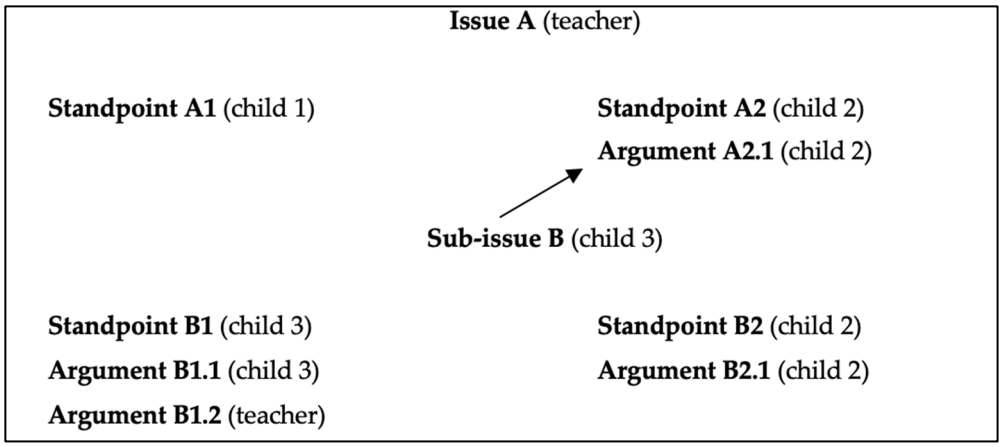


Figure 1. Example of adapted analytic overview.

3. Results

In order to illustrate our results, we present three cases of subdiscussions between children and adults from the corpus used for this research. These examples are representative as they show the different types of adult responses to children's subdiscussions that were found in the corpus.

3.1. The Adult Supports the Child's Contribution

The first situation we examine is the adult reacting to the child's argumentative contribution by supporting it. In the corpus, the manifestation of support ranged from adults nodding and verbally encouraging children to go on with their contribution to adults repeating or reformulating the child's contribution or even producing arguments in favour of the child's viewpoint. To illustrate what can happen in such a case, we present the following example.

Example 1: "Good guy or bad guy"

This episode took place during an activity where children were asked to discuss a moral dilemma. The teacher told them the story of a group of imaginary school friends, where one of them (Luca) has stolen the soft toy of another friend (Valentina). The problem is that Luca did not notice that another friend (Tony) had seen him. Tony tells about what he saw to his sister Tina, and he asks for her advice on what to do. The teacher at the kindergarten launched a discussion about what the children would tell Tony if they were in Tina's shoes.

At a certain point, the teacher asks the children whether Luca (the character who stole) is good or bad, and the following interaction between Valeria (the teacher, VAL in the transcript), Nathan (6:4 years old, NAT in the transcript), Bianca (5:1 years old, BIA in the transcript) and the researcher (RES in the transcript) occurred:

```
{transcript starts at 00:20:25.787}

547 VAL: ma eh (-) natha:n
          but ehm, Nathan
548 (0.91)
549                       com'è luca secondo te?
            how is Luca in your opinion?
550 (2.19)
551                      è bravo?
```

is he good?

552 NAT? sì.

yes

553 (0.65)

554 BIA: no.=

no

555 NAT: =no=

no

556 BIA: =perché ha robato la pecorella (.) a va[lentina]

because he stole Valentina's little sheep

557 NAT: [è medio]=

he is medium

558 RES: <<smiling> è [medio]>

he is medium

559 NAT: [ma for]se [per-]

but maybe for

560 VAL: [è me]dio

he is medium

561 NAT: ma ti ricordi che io ho detto che (.) forse (.) sta creando un peluche più grande?

but do you remember that I said that maybe he is making a bigger soft toy?

→ 562 VAL: AH magari vuole fare qualcosa di bello.

ah! Perhaps he wants to do something nice

563 (0.14)

→ 564 magari (-) [nel suo gesto di prendere la pecorel]la

perhaps in his gesture of taking the little sheep

565 NAT: [forse perché è il compleanno.]

maybe because it's the birthday

→ 566 VAL: vuol fare una [cosa bella]

he wants to do something nice

567 NAT: [forse è il suo com]pleanno (.) de lei.

maybe it is her birthday. . .of her

568 (0.47)

→ 569 VAL: ah:: e ha preso la sua pecorella magari gli fa un vestito bello.

ah! And he took her little sheep perhaps he'll make a nice dress

570 (0.12)

571 RES: quindi noi non sappia[mo]

so we don't know

572 NAT: [no] gli crea un peluche [(grande per il suo com)]pleanno.

no he's creating a big soft toy for her birthday

573 VAL: [ascolta l'elisa]

listen to Elisa

574 (0.11)

→ 575 RES: quindi tu (.) quindi tu stai dicendo che noi non sappiamo perché l'ha rubato magari non c'era per forza un inten[to negativo]

so you... so you are saying that we don't know why he stole it, perhaps there wasn't necessarily a bad purpose

{transcript ends at 00:21:08.176}

We reconstruct hereunder the argumentative exchange through the adapted version of the analytic overview (cf. Section 3.1).

As Figure 2 shows, the issue under discussion is the question that is explicitly asked by the teacher at the beginning of the excerpt. It becomes an argumentative exchange as soon as Bianca disagrees with Nathan's view and presents her own argument. Bianca asserts that Luca is not a good person because he stole Valentina's soft toy (turn 556), which presupposes that a person who steals cannot be considered good. Nathan questions whether there could be a valid reason for Luca's actions, challenging the underlying assumption in Bianca's argument. Although Bianca does not react to the new discussion point raised by Nathan, interestingly, the teacher does (and even the researcher at the end of the excerpt). In the transcript, we highlighted through an arrow the teacher's intervention after the opening of the subdiscussion by Nathan. In the analytic overview, we reported it as a further argument supporting Nathan's position. The teacher's reaction is to follow up on the proposition by the child, who continues with his reasoning to create a situation where stealing can be justified (he comes up with the idea that Luca is preparing something for Valentina's birthday), thus saving Luca's reputation. The teacher's move has the effect of encouraging the child and giving credit to his claim. Even the researcher supports Nathan's contribution by reformulating that there might be some good reason why Luca stole the soft toy (turn 575). At the end of this interaction, the other children also seem to accept that Luca might not be that bad.

This example clearly shows how the adult's response to the child's subdiscussion helps the development of his reasoning. Even though there was little indication in the story that Lucas was good, a child (Nathan) starts imagining a different alternative: he tries to add some elements to the story that could justify Luca's behaviour ("maybe it is her birthday"; "maybe he is making a bigger soft toy").

We look now more specifically at the role of the adult (Valeria). The teacher, who is guiding the interaction, through her supportive answer, constructs an argumentative space in which Nathan feels legitimized to expand his arguments B1.1 (turn 561) and B1.1.1 (turn 565). Indeed, by saying "Ah! Perhaps he wants to do something nice" (turn 562), Valeria offers Nathan the opportunity to clarify and complete his argument B1.1 with argument B1.1.1.

It is interesting to note that in the continuation of the full transcript, the teacher went on guiding the discussion about this moral dilemma and, at a certain point, she asked the children whether it could be a reasonable move to go and talk to Luca, *if they had the doubt that he might have stolen not for a negative purpose*. The doubt mentioned by the teacher is arguably the fruit of the subdiscussion that was opened previously by Nathan's contribution. Hence, this example shows that the adult integrated the child's contribution, which shaped the discussion that she was guiding.

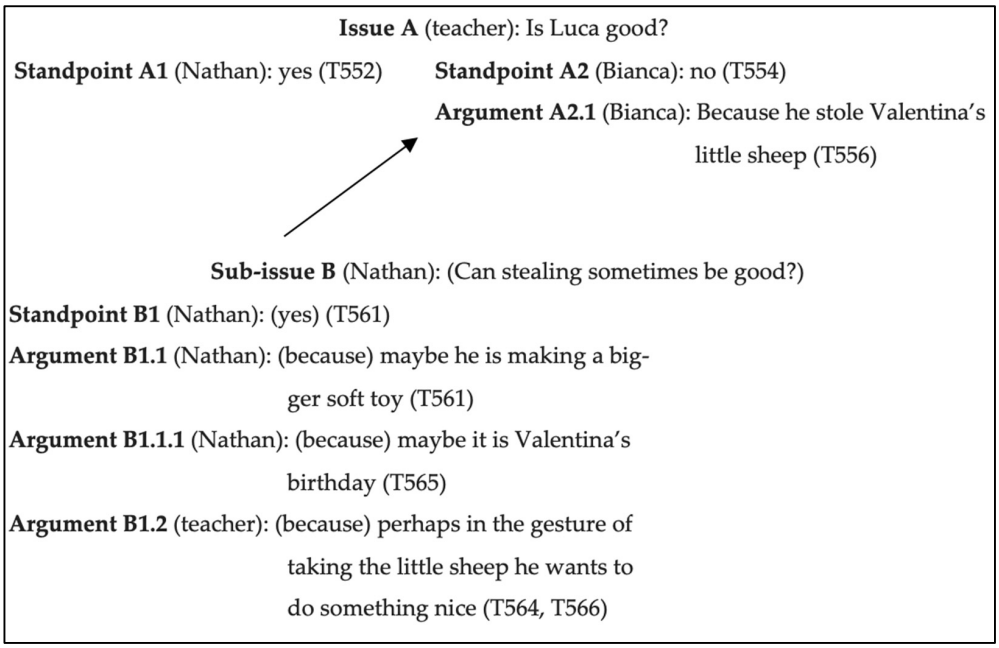


Figure 2. Adapted analytic overview of "Good guy or bad guy".

3.2. The Adult Opposes the Child's Contribution

In this next example, we observe a second type of adult's response to a child's contribution, where the adult takes the opposing position with respect to the subdiscussion opened by the child.

Example 2: "Hot or cold"

This example concerns a discussion where children were asked to imagine they were going to a deserted island and to choose an object they would bring with them. In the excerpt, we follow the interaction between Davide (6:6 years old, DAV in the transcript), Nathan (6:4 years old, NAT in the transcript), Gaia (4:6 years old, GAI in the transcript), the teacher Valeria (VAL), and the researcher (RES).

{transcript starts at 00:05:56.655}

159 VAL: per la notte allora il davide (.) piscina e cope=eh
piscina (-) <<laughing> cuscino> e coperta
For the night so Davide, swimming pool and blan- uhh swimming pool. . . pillow and blanket

160 DAV: due due (-) due coperte perché fa freddi:ssimo:
two two, two blankets because it is very cold

161 (0.78)

162 RES: quindi sì okay
So yes okay

163 (0.28)

164 VAL: allora la co=la coperta diciamo UNA ma be:lla ca:lda.
So the bl-the blanket let's say ONE but super warm

165 NAT: io=io porto:: io=io:: porto il costume (così) mi posso fare il bagno nell'i(sola)

I-I'll bring, I-I'll bring the swimming suit so I can go swimming on the island

166 (0.30)

167 DAV: (ma [se fa) freddo.]

But it is cold

168 VAL: [un bel costu]mino (-) un bel (costume.)

A nice small swimming suit, a nice swimming suit

169 (0.03)

170 GAI: [anch'io:]

Me too

→ 171 DAV: [fa freddo]

It's cold

172 VAL: nella sua TEsta nell'isola si sta [al caldo].

In his head on the island it is warm

173 GAI: [anch'io] mi porto (---) (xxx) costume da ba:gno:

Me too I'm bringing the swimming suit

174 VAL: anche tu porti il costume da bagno?

You bring the swimming suit too?

175 DAV: anch'io allora lo porto.

I'll also bring it then

{transcript ends at 00:06:34.905}

The analytic overview below displays the main components of this argumentative interaction (Figure 3).

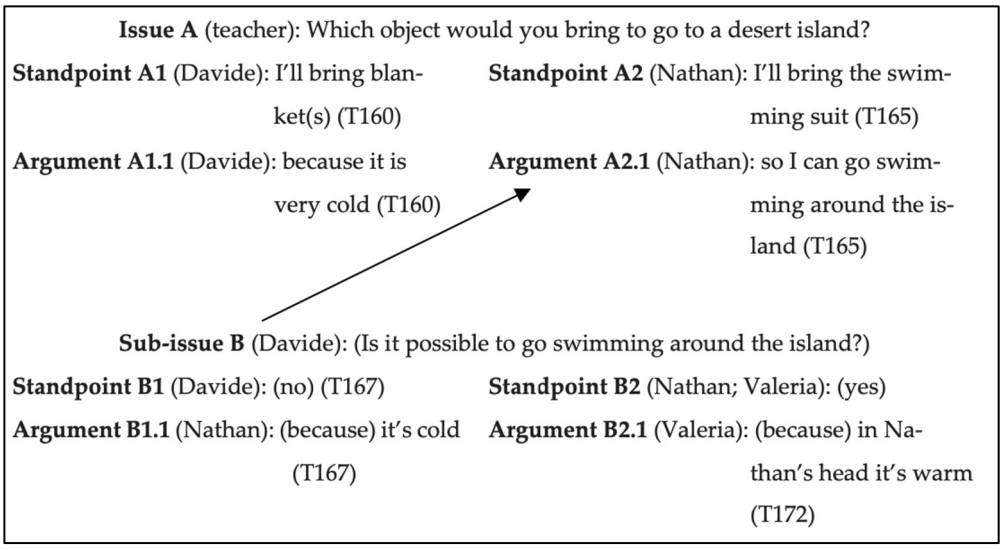


Figure 3. Adapted analytic overview of "Hot or cold".

The main issue under discussion is the question that the teacher asked at the beginning of the activity: "Which object would you bring to a desert island?". Davide's proposal, which is reformulated by the teacher at the beginning of the transcript, is to bring a pillow and a blanket (turn 159), and later two blankets (turn 160). He justifies his choice by saying

that it is very cold (turn 160). Another child, Nathan, advances a different idea: he would bring a swimming suit, so he can go swimming (turn 165). Davide criticizes this proposition by reminding him that it is cold (turn 167), which calls into question the possibility of swimming around the island (sub-issue B in the analytic overview).

If we focus on the adult's response, we observe that at first, Davide's subdiscussion is ignored: the teacher seems to focus on the proposition of the swimming suit (turn 168). When the child repeats his criticism, the teacher advances an argument which actually defends the opposing standpoint in the subdiscussion opened by Davide. After the teacher's response, another child (Gaia) joins the idea of bringing the swimming suit. Davide, in the end, changes his mind: "I'll also bring it [the swimming suit] *then*" (our emphasis).

Our objective through this example is to show a situation where an adult reacts by opposing a child's contribution. It can be that the adult simply disagrees with the child's proposition, or that they want to test the strength of the child's idea. In this case, we do not know why Davide at the beginning is convinced that the weather on the deserted island is cold; it could be that the child was referring to the actual weather at the time of the interaction (it was winter in Switzerland), or it could be that Davide knows that nights can be cold on a desert island. It is possible that the fact that the teacher opposes Davide's contribution makes the child aware of an alternative that he had not considered. It can also be that the teacher's position is perceived as the right one, since she is the one managing the discussion.

In the corpus examined, there were some cases where children persisted with their challenging position. However, the adult's opposition was rarely defeated, and in the end, discourse developed within the tracks chosen by the adult.

These elements corroborate certain studies (e.g., Miserez-Caperos, 2017): the fact that the adult occupies an active role in the argumentative interaction, by putting the children's arguments to the test, can lead the latter to change their points of view, agreeing with the adult's standpoint. In addition, other studies (Perret-Clermont & Carugati, 2004; Pramling & Säljö, 2014) also highlight that children can be particularly good at grasping adult expectations in an interaction (whether argumentative or not). Thus, it is also possible that Davide implicitly understood that the adult wanted, consciously or unconsciously, a matching of points of view.

3.3. The Adult Opens a Subdiscussion and Puts into Question the Child's Contribution

Another possible response that was found in the corpus is the opening of a new subdiscussion by the adult, meaning that the adult calls into question the child's contribution. To illustrate and discuss this occurrence, we present the episode below.

Example 3: "The magic wand"

The following argumentative exchange took place during an activity where the children at the kindergarten were given six vignettes showing some pictures of a princess and a frog. The children were asked to reorder the pictures in a way that made sense to them and to tell the story behind them. To help the reader better understand the interaction, the story behind the pictures was a version of the German fairy tale *The Frog Prince* by the Grimm brothers, where a frog, which was under a wicked spell, turns back into a handsome prince after helping and falling in love with a princess.

In the transcript, we follow a discussion between Federica (5:8 years old, FED in the transcript), Nathan (6:4 years old, NAT in the transcript), Davide (6:6 years old, DAV in the transcript), and the teacher Valeria (VAL), where Federica advances her version of the story.

```
{transcript starts at 00:17:02.002}
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468 FED: do:po quando la principessa (2.0) è andata qua e (.) e dopo l'ha messo=l'ha=l'ha fatto con la sua magia con la bacchetta magica (.) e dopo l'ha trasformato eh: l'acqua lì (unintelligible, appr 3 sec) e dopo si è trasformato in PRIncipe

Then when the princess. . .she went here and, and then she put, she-she did with her magic with the magic wand, and then she transformed it uhm the water there . . . and then it turned into a prince.

469 VAL: dimmi solo una cosa (-) in questa storia (.) siete d'accordo?

Tell me only one thing, in this story. . . do you agree?

470 NAT: no:

No

471 VAL: perché?

Why?

472 NAT: perché non (.) non si vede che ha la bacchetta magica.

Because you don't, you don't see that she has the magic wand.

473 VAL: <<nodding> mh_mh>

Mh_mh

474 FED: ma tanto è invisibile

But anyway it's invisible

→ 475 VAL: è invisibile?

It's invisible?

476 NAT: non esiste la bacchetta invisibile

It does not exist the invisible wand

477 FED: [si]

Yes

→ 478 VAL: [l'hai] già vista ?

Have you already seen it?

479 DAV: si può creare nathan (.) si può anche creAre.

It can be created Nathan, it can also be created.

480 NAT: si però non (.) ma per me (.) per me (.) per me l'inizio è quando ha bussato la porta la ranocchia.

Yes but not, but for me, for me, for me the beginning is when it knocked on the door the frog

{transcript ends at 00:17:46.012}

This argumentative exchange can be reconstructed as follows:

As it is portrayed in Figure 4, the exchange becomes argumentative as the teacher asks the other children whether they agreed with Federica's version of the story (issue A) and Nathan disagrees. According to Federica, the princess made an enchantment with her wand, and she transformed the frog into a prince (turn 468). Nathan is not satisfied with Federica's story, and after being prompted by the teacher, he argues that there is no magic wand in the pictures, so Federica's idea cannot be right. Federica reacts by claiming that the

magic wand is invisible, which challenges Nathan's argument and creates a subdiscussion concerning the possibility of seeing the wand in the pictures (sub-issue B).

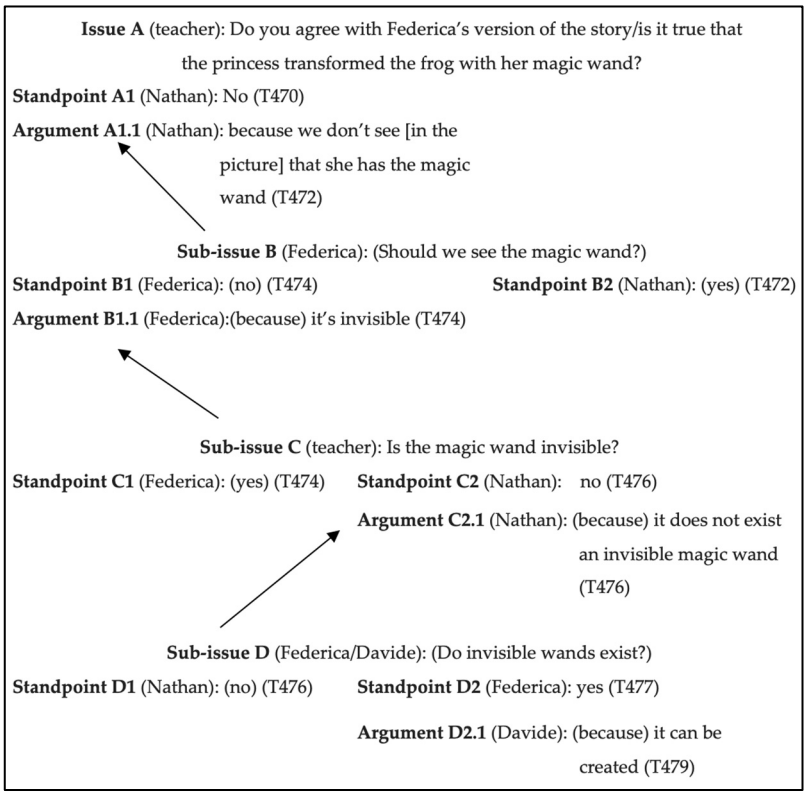


Figure 4. Adapted analytic overview of "The magic wand".

At this point, the teacher challenges Federica by asking whether the wand is invisible (turn 475), as if she was not fully convinced by the child's contribution. It is worth noting here that in pragma-dialectics, an argumentative discussion can take place when there is a difference in opinions between (at least) two parties. The difference in opinion does not necessarily mean that there are two different standpoints with respect to an issue, but it can also be that one party has a standpoint and the other party is not sure of that standpoint[10]. In our case, hence, the move by the teacher arguably suggests that she is not sure about the proposition advanced by Federica in her subdiscussion, and this in turn opens a new subdiscussion about whether the wand can be invisible (sub-issue C). The teacher's doubt gives Nathan the opportunity to enter the subdiscussion and argue that the wand cannot be invisible because invisible wands do not exist (turn 476). Of course, Nathan's position (standpoint C2) is opposed to Federica's point of view (standpoint C1—yes, the wand is invisible), which we reconstructed considering her previous contribution in line 474. At turn 477, Federica keeps standing for her opinion. It is not fully clear whether she utters "yes" in reply to the teacher's question or whether she is reacting to Nathan's criticism. Anyway, the teacher asks if Federica has already seen an invisible wand (turn 478), which can be seen as a reformulation of her doubt. The teacher seems to be asking for proof of the existence of invisible wands. Interestingly, another child, Davide, intervenes in the discussion and advances an argument for the existence of invisible wands (thus standing with Federica and against Nathan). Davide proposes that invisible wands can be created, so they can exist (turn 479). This subdiscussion remains suspended. Although Federica and Davide have provided a justification for their sub-standpoint, i.e., standpoint D2 (that invisible wands exist), Nathan does not accept the conclusion. Without arguing for his maintained criticism, he interrupts all the subdiscussions and goes back to the main issue

asked by the teacher (whether Federica's version of the story is right), and he imposes his version of the story (turn 480).

If we focus on the adult's behaviour and its implications in the interaction, we observe how the adult can respond to the child's unexpected contribution by problematizing and putting into question such a contribution, thus opening a further subdiscussion. The teacher puts into doubt Federica's proposition of the invisible wand. By calling into question her contribution, on the one hand, she is asking the child to develop and prove her point of view. She is arguably attempting to verify the acceptability of the child's proposition, or she might want to test the strength of what Federica is saying. On the other hand, the teacher calling into question Federica's contribution raises a doubt, which gives Nathan the opportunity to oppose Federica's position. Such teacher behaviour leads to further development of the dialogue and reasoning, although in this specific example, it is no longer Federica who is arguing. We see on the one side Nathan developing his line about the unacceptability of the invisible magic wand, and on the other side, Davide taking the defence of Federica's point of view.

In this way, we can see that the openness offered by the adult allows the children to contribute, in turn, to the development of argumentative discourse. In this example, the adult allowed "deviations" from the main issue (Do you agree with Federica's version of the story/is it true that the princess transformed the frog with her magic wand?) and the various subdiscussions that emerged led to a more refined and precise co-construction of the children's arguments.

Note how, from whether Federica's reconstruction of the story was attainable (issue A), the class moved to discuss the existence of magic wands (sub-issue D), which was somehow pertinent to the original issue. This example, hence, is particularly interesting as it clearly shows the shifts from one discussion to another, which mirrors the dynamicity and the complexity of the unfolding of argumentative dialogue. Such dynamicity is of course the result of the interconnected moves of the adult and children.

4. Discussion

In this study, we observed how adults respond to children's argumentative contributions, and we analyzed how these responses play a role in the development of the dialogue. More precisely, we explored cases in which children initiated subdiscussions—that is, moments where children problematized or called into question a proposition within an ongoing discussion led by an adult.

We presented some cases that illustrate different types of adult responses to children's arguments. It is not our intention to propose a comprehensive categorization of adult responses; rather, our aim is to shed light on how the adult's behaviour within subdiscussions affects the subsequent evolution of the interaction.

Returning to our research questions—How do adults respond to children's subdiscussions? What role does the adult play in these dialogical interactions?—our findings offer the following reflections.

In the corpus examined, adults mainly took up children's subdiscussions by supporting them (example 1), by opposing them (example 2), or by putting them into doubt (example 3). The excerpts presented reveal the complex and delicate role that adults occupy in children–adult dialogic interactions. Through their interventions, adults can guide children's argumentation and create a space for them to express their point of view and develop arguments (cf. example 1). This guidance helps children to move forward step by step in their argumentative discourse, as they feel supported (example 1) or challenged (example 3) by the adult.

We have also shown that when the adult introduces a counterargument with respect to the child's contribution, the child tends to retract or revise their initial position (cf. example 2). This may occur either because the child recognizes a new perspective that they had not considered, or, more critically, because of the asymmetry between the interlocutors: the position of the teacher may be perceived as the "right" one, leading the child to conform.

We have presented examples of subdiscussions initiated by the children (examples 1 and 2) but also by the adult. Example 3 offers a nice presentation of this, and it illustrates how the child reacts to this new subdiscussion. The excerpt shows that when the adult puts into question the child's proposition, by explicitly expressing a doubt, this leads the interlocutors to go deeper with their reasoning (some defending the questioned proposition and some attacking it). In this case, the adult's intervention opened a new space for exploration and gave rise to multiple layers of subdiscussions, demonstrating both the richness and complexity of such dialogic spaces. While the flexibility of the discussion space managed by the teacher allows for deeper engagement, it also poses challenges: when an argumentative discourse involves an interweaving of subdiscussions, and therefore of sub-issues, the orientation of the discourse can be problematic, as the child may no longer know which sub-issue to contribute to, and the adult may struggle to manage the discourse. This highlights the demanding role of the adult in guiding children and sustaining meaningful dialogue.

It is important to emphasize that our analysis does not aim to identify generalizable patterns or make normative claims about the value of specific adult responses. Such conclusions would require a broader, quantitative investigation. We cannot conclude that supporting children's contributions is always beneficial, that calling children into question is always useful, or that opposing the child's argument is inherently harmful. Instead, this qualitative study allows us to understand the fine-grained dynamics of child–adult dialogic interactions and illustrate how adult interventions shape the flow of dialogue and the degree of children's engagement. Our observations suggest that the quality and development of children's argumentative contributions depend on the flexibility of the discussion space and, even more critically, on the flexibility and responsiveness of the participants—especially those in guiding roles.

Interestingly, none of the excerpts we analyzed included instances where the adult explicitly asserted and defended their own standpoint. One possible explanation is that adults may intentionally refrain from presenting their own views to avoid pressuring children into adopting them. Nonetheless, our analysis shows how the different adult responses to children's contributions still orient the course of the dialogue. We can see that the adult's roles are intrinsically linked to those of the children. Indeed, the child will adjust the way in which they develop their argumentative discourse, depending on the role occupied by the adult in the interaction: for example, if the adult leaves an open space for discussion, the child will feel free to express themselves and will feel confident in developing and justifying their point of view. What we see here is a dialogical perspective on interaction, in which adults and children find themselves in a space of learning and discussion, where children are encouraged to express their point of view, develop arguments, and defend ideas, individually or in groups, by co-constructing an argumentative discourse with their peers.

These reflections can also be valuable if we consider the school context. If we look at the pedagogical implications that this research could bring, we can underline the importance of a certain type of teacher participation in the discussions that take place in the classroom. Indeed, our data show that the adult's response can guide the child's response. Although further research is needed to confirm and expand on these observations, we propose that educators pay close attention to their discursive positioning during classroom interactions—

whether responding to a student's answer to a question or engaging in problem-solving activities. Sensitivity to argumentative interplay can help teachers foster more meaningful and empowering learning environments.

Future research could explore argumentative subdiscussions in classroom settings with older children, as the present study focused on preschool children. This interweaving between children and adult responses may shed light on situations where student participation appears problematic or disengaged. It would be interesting to analyze the sequence of the student's discourse in relation to that of the teacher and to observe what happens in terms of the teacher's argumentative production.

In conclusion, this paper highlights the significant role adults play in children–adult dialogic interactions. It offers valuable insights into the nuanced ways in which adult interventions can influence the flow of dialogue and children's engagement in it. The adult's role is not limited to simply moderating the discussion, but it extends to actively shaping its unfolding and content.

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Notes

1 We do not consider the notion of persuasion when we talk about the definition of argumentation, if we look at argumentation in children.

2 A more detailed review of the literature can be found in Miserez-Caperos (2017).

3 When we use the term device, we refer to the design and the implementation of a pedagogical setting aimed at fostering argumentative discourse in the classroom.

4 For further references and examples of argumentation structure, see van Eemeren et al. (2002).

5 The concept of sub-discussion is often mentioned in scientific works, but very rarely theorized. Angiolini (2024) illustrates a systematic literature review on this subject.

6 The issue is the question around which a discussion revolves, it is the object of the discussion (cf. Goodwin, 2002; Schär, 2018).

7 OPI stands for "Operatore pedagogico per l'integrazione" (transl. Pedagogical operator for integration). This figure is present in the educational system in Ticino and it consists of a specialized supporting teacher, whose main objective is to promote the adoption and application of dispensatory and/or compensatory measures necessary for the implementation of the pedagogical project for students with special educational needs (see https://www4.ti.ch/decs/ds/sps/chi-siamo/servizio-pedagogico-per-lintegrazione (accessed on 23 May 2024).

8 The researcher served as both researcher and interlocutor in the kindergarten discussions. As Brasseur claims, "the interaction of the researcher with the fieldwork has an impact on the fieldwork" (Brasseur, 2012, p. 107, our translation). As the researcher was present during the video recordings, it happened that some children would address her and include her in the discussion. Realizing that she was not a neutral observer, the researcher decided to participate in the kindergarten activities with the children

as an adult interlocutor. She listened to the teacher's, the educators', the children's comments, and she smiled, nodded, and reacted according to what she heard. She asked questions if something was not clear to her, she answered questions when she was called on. It is important to remark that the researcher was not the designer of the activities, nor did she ever lead a discussion. Hence, the position of the researcher was that of a young adult who was willing to play with the children and who was a potential interlocutor during the discussions. She never took initiatives and with the children she always pointed at the teacher and the educators as the authorities in the classroom. This type of participation was not particularly problematic for the study; the researcher's turns in the transcripts have been analyzed as adult's contributions.

[9] We propose an adapted version of the analytic overview by van Eemeren and Grootendorst, following the one developed by Schär's (2018) research. This author included the issue in her analytic overview, since her objective was to study how argumentative discussions between children and adults came to life, so she needed to recognize in her data the opening of issues. We add the indication of the sub-issue (cf. Angiolini, 2024) since we are interested in distinguishing the main discussion from the subdiscussion opened by a child.

[10] Cf. the difference between mixed and non-mixed dispute in van Eemeren and Grootendorst (1984).

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