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**AN INTERDISCIPLINARY STUDY
OF SUBDISCUSSIONS
IN CHILDREN-ADULT
ARGUMENTATIVE INTERACTIONS**

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par

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Abstract

Recent research has demonstrated that children, even very young ones, are capable of actively participating in argumentative discussions, some conditions being respected, such as the presence of adequate space (for a review cf. Bubikova-Moan & Sandvik, 2023; but see also: Hannken-Illjes & Bose, 2018; Convertini, 2019; Schär, 2018a; Greco & Perret-Clermont, 2022). It has also been shown how considering argumentation as a dialogical process allows for a better understanding of children's argumentative contributions (Perret-Clermont et al., 2019).

Following this stream of research, this dissertation explores the under-investigated phenomenon of children opening subdiscussions within argumentative interactions with peers and adults (cf. Schär, 2021). In argumentation studies, subdiscussions are defined as discussions nested within other discussions (cf. Krabbe, 2003), which emerge when, some aspect of the ongoing interaction is problematized and put into question by one of the parties (Eemeren van et al., 1993). Despite their important role in re-establishing agreement over the presupposed premises of an interaction, subdiscussions have received little attention in empirical research so far. In the context of children-adult argumentation, where misalignments and discrepancies of points of view between children and adults appear to be frequent (cf. Giglio, 2010; Mehmeti & Perret-Clermont, 2016; Greco et al., 2018; Perret-Clermont et al., 2019; Iannaccone et al., 2019; Kohler, 2020; Schär, 2021), it becomes particularly relevant to study how this process of negotiation of *common ground* works.

Hence, the objective of the thesis is, first, to explore the “life cycle” of children-initiated subdiscussions within children-adult argumentative interactions: how do children's subdiscussions emerge? How do they develop (if they develop)? How do they end (if they end)? Secondly, through an adapted argumentation design perspective (cf. Jackson, 2015; Aakhus & Jackson, 2005), this work concentrates on the consequences of a subdiscussion on the course of the interaction in which it emerged: how do adults respond to the opening of a subdiscussion by a child (cf. Greco et al., 2017)? Can children's subdiscussions somehow shape the direction of the ongoing interaction?

Empirically, the research is based on a corpus of around 32 hours of video recordings collected in a kindergarten in Italian-speaking Switzerland. The data consist of discussions between three-to-six-year-old children and their teachers during their daily activities. The subdiscussions identified in the corpus have been reconstructed and analyzed following a linguistics-based approach to argumentation, namely the pragma-dialectical theory of argumentation (van Eemeren, 2018) combined with the *Argumentum Model of Topics* (AMT – Rigotti & Greco Morasso, 2010; Rigotti & Greco, 2019). The dissertation also integrates insights from sociocultural psychology, which allow to observe children's argumentation as a social and communicative interaction that takes place in a very specific context (cf. Muller Mirza et al., 2009).

The main findings indicate that children frequently put into question their interlocutors' (both peers' and adults') arguments. In particular, they problematize and attempt to rediscuss the material-contextual premises of these arguments and the *issues* proposed by adults in the interaction. Adults do not always take up these critical initiatives, either because of practical difficulties related to the class management, or because subdiscussions opened by children are perceived as ways to derail the conversation.

When the subdiscussions opened by children are developed and reach a conclusion, the subdiscussions usually help the resolution of the main argumentative discussion, unless the interlocutors violate some rule from the ideal code of conduct of a critical discussion (cf. van Eemeren & Grootendorst, 2004), which leads to the abandonment of the whole discussion.

Finally, after the conclusion of a subdiscussion, the interaction usually continues as if the subdiscussion has never occurred. Hence, the subdiscussion usually works as a parenthesis within the interaction. However, in few cases, subdiscussions left traces in the continuation of the interaction, which indicates that the subdiscussion opened by the child has shaped the discourse in a direction that might not coincide with the flow of the discussion that the adult was expecting.

This dissertation intends to provide an empirical contribution to the domain of argumentation theory by exploring a concept that does not seem to have received much attention yet, and by illustrating its unfolding in a specific educational context. Furthermore, through the observation of children's subdiscussions, this work aims at enhancing the understanding of the child's activity in argumentative situations and to raise reflections about children's engagement and their space in argumentative discourse. More specifically, the thesis acknowledges the child as an active interlocutor in argumentative discussions, and it raises awareness on the fact that the opening of a subdiscussion by a child is the occasion that allows to recognize that the child is making sense of the situation from his/her perspective, which might be different from that expected by the adult.

Keywords: subdiscussion, children-adult argumentation, common ground, implicit premises, kindergarten activities, children's initiatives, consequences on the interaction.

Résumé

Des recherches récentes ont démontré que les enfants, même très jeunes, sont capables de participer activement à des discussions argumentatives, certaines conditions étant respectées, comme la présence d'un espace adéquat (cf. Bubikova-Moan & Sandvik, 2023 ; voir aussi : Hannken-Illjes & Bose, 2018 ; Convertini, 2019 ; Schär, 2018a ; Greco & Perret-Clermont, 2022). Il a également été montré que considérer l'argumentation comme un processus dialogique permet de mieux comprendre les contributions argumentatives des enfants (Perret-Clermont et al., 2019).

Dans cette lignée de recherche, cette thèse explore le phénomène encore peu étudié de l'ouverture de sous-discussions par les enfants dans le cadre d'interactions argumentatives avec leurs pairs et des adultes (cf. Schär, 2021). Dans la littérature de la théorie de l'argumentation, les sous-discussions sont définies comme des discussions imbriquées dans d'autres discussions (cf. Krabbe, 2003), qui émergent lorsqu'un aspect de l'interaction en cours est problématisé et remis en question par l'une des parties (van Eemeren et al., 1993). Malgré leur rôle important dans le rétablissement de l'accord sur les présupposées d'une interaction, les sous-discussions ont reçu peu d'attention dans la recherche empirique jusqu'à présent. Dans le contexte des argumentations enfant-adulte, où les désaccords et les divergences des points de vue entre enfants et adultes semblent fréquents (cf. Giglio, 2010 ; Mehmeti & Perret-Clermont, 2016 ; Greco et al., 2018 ; Perret-Clermont et al., 2019 ; Iannaccone et al., 2019 ; Kohler, 2020 ; Schär, 2021), il devient particulièrement pertinent d'étudier comment ce processus de négociation du *common ground* fonctionne.

Ainsi, l'objectif de la thèse est, premièrement, d'explorer le « cycle de vie » des sous-discussions initiées par les enfants dans les interactions argumentatives enfant-adulte : comment émergent-elles ? Comment se développent-elles (si elles se développent) ? Comment se terminent-elles (si elles se terminent) ? Deuxièmement, ce travail, à travers une approche adaptée de *design* de l'argumentation (cf. Jackson, 2015 ; Aakhus & Jackson, 2005), se concentre sur les conséquences d'une sous-discussion sur le cours de l'interaction dans laquelle elle a émergé : comment les adultes répondent-ils à l'ouverture d'une sous-discussion par un enfant (cf. Greco et al., 2017) ? Les sous-discussions des enfants peuvent-elles influencer le déroulement de l'interaction en cours ?

Empiriquement, la recherche est basée sur un corpus d'environ 32 heures d'enregistrements vidéo collectés dans une école maternelle en Suisse italienne. Les données consistent en des discussions entre des enfants de trois à six ans et leurs enseignants pendant leurs activités quotidiennes. Les sous-discussions identifiées dans le corpus ont été reconstruites et analysées selon une approche linguistique de l'argumentation, à savoir la théorie pragma-dialectique de l'argumentation (van Eemeren, 2018) combinée avec l'*Argumentum Model of Topics* (AMT – Rigotti & Greco Morasso, 2010 ; Rigotti & Greco, 2019). La thèse intègre également des perspectives de la psychologie socioculturelle, permettant d'observer l'argumentation des enfants comme

une interaction sociale et communicative qui a lieu dans un contexte spécifique (cf. Muller Mirza et al., 2009).

Les résultats principaux indiquent que les enfants remettent fréquemment en question les arguments de leurs interlocuteurs (et des pairs et des adultes). En particulier, ils problématisent et tentent de rediscuter les prémisses matérielles et contextuelles de ces arguments et les *issues* proposées par les adultes dans l'interaction. Les adultes ne prennent pas toujours en compte ces initiatives critiques, soit en raison de difficultés pratiques liées à la gestion de la classe, soit parce qu'ils perçoivent les sous-discussions ouvertes par les enfants comme des tentatives de dévier la conversation.

Lorsque les sous-discussions ouvertes par les enfants se développent et atteignent une conclusion, elles contribuent généralement à la résolution de la discussion argumentative principale, sauf si les interlocuteurs enfreignent une règle du code de conduite idéale d'une discussion critique (cf. van Eemeren & Grootendorst, 2004), ce qui mène à l'abandon de la discussion entière.

Enfin, après la conclusion d'une sous-discussion, l'interaction se poursuit généralement comme si la sous-discussion n'a jamais eu lieu. Ainsi, la sous-discussion fonctionne généralement comme une parenthèse dans l'interaction. Cependant, dans quelques cas, les sous-discussions laissent des traces dans la poursuite de l'interaction, indiquant que la sous-discussion ouverte par l'enfant a orienté le discours dans une direction qui ne coïncide pas forcément avec le déroulement attendu de la discussion gérée par l'adulte.

Cette thèse vise à apporter une contribution empirique au domaine de la théorie de l'argumentation en explorant un concept qui n'a pas encore reçu beaucoup d'attention et en illustrant son déroulement dans un contexte éducatif spécifique. De plus, par l'observation des sous-discussions des enfants, ce travail vise à améliorer la compréhension de l'activité de l'enfant dans des situations argumentatives et à susciter des réflexions sur l'engagement et la place des enfants dans le discours argumentatif. Plus précisément, la thèse reconnaît l'enfant comme un interlocuteur actif dans les discussions argumentatives et elle souligne que l'ouverture d'une sous-discussion par un enfant est l'occasion qui permet de se rendre compte que l'enfant interprète la situation selon sa propre perspective, qui peut différer de celle attendue par l'adulte.

Mots-clés : sous-discussion, argumentation enfants-adulte, *common ground*, prémisses implicites, activités à la crèche, initiatives des enfants, conséquences sur l'interaction.

Riassunto

Ricerche recenti hanno dimostrato che i bambini, anche molto piccoli, sono in grado di partecipare attivamente a discussioni argomentative, a patto che vengano rispettate alcune condizioni, come la presenza di uno spazio adeguato (per una revisione cf. Bubikova-Moan & Sandvik, 2023; si veda anche: Hannken-Illjes & Bose, 2018; Convertini, 2019; Schär, 2018a; Greco & Perret-Clermont, 2022). È stato inoltre provato che considerare l'argomentazione come un processo dialogico consente una migliore comprensione dei contributi argomentativi dei bambini (Perret-Clermont et al., 2019).

Seguendo questa linea di ricerca, questa tesi esplora il fenomeno poco studiato dell'apertura di sottodiscussioni da parte dei bambini nelle interazioni argomentative con pari e adulti (cf. Schär, 2021). Nella letteratura della teoria dell'argomentazione, le sottodiscussioni sono definite come discussioni contenute in altre discussioni (cf. Krabbe, 2003), che emergono quando un aspetto dell'interazione in corso viene problematizzato e messo in discussione da una delle parti (van Eemeren et al., 1993). Nonostante il loro ruolo importante nel ristabilire l'accordo sui presupposti di un'interazione, le sottodiscussioni hanno finora ricevuto poca attenzione nella ricerca empirica. Nel contesto delle argomentazioni tra bambini e adulti, dove disallineamenti e discrepanze di punti di vista tra bambini e adulti sembrano essere frequenti (cf. Giglio, 2010; Mehmeti & Perret-Clermont, 2016; Greco et al., 2018; Perret-Clermont et al., 2019; Iannaccone et al., 2019; Kohler, 2020; Schär, 2021), diventa particolarmente rilevante studiare come funziona questo processo di negoziazione del *common ground*.

Pertanto, l'obiettivo della tesi è, in primo luogo, esplorare il "ciclo di vita" delle sottodiscussioni iniziate dai bambini nelle interazioni argomentative tra bambini e adulti: come emergono le sottodiscussioni dei bambini? Come si sviluppano (se si sviluppano)? Come finiscono (se finiscono)? In secondo luogo, questo lavoro, attraverso una prospettiva riadattata di design dell'argomentazione (cf. Jackson, 2015; Aakhus & Jackson, 2005), si concentra sulle conseguenze delle sottodiscussioni sul corso delle interazioni in cui emergono: come reagiscono gli adulti all'apertura di una sottodiscussione da parte di un bambino (cf. Greco et al., 2017)? Le sottodiscussioni dei bambini possono in qualche modo influenzare la direzione dell'interazione in corso?

Empiricamente, la ricerca si basa su un corpus di circa 32 ore di registrazioni video raccolte in un asilo nella Svizzera italiana. I dati consistono in discussioni tra bambini di età compresa tra tre e sei anni e le loro insegnanti durante le attività quotidiane. Le sottodiscussioni identificate nel corpus sono state ricostruite e analizzate seguendo un approccio linguistico all'argomentazione, in particolare la teoria pragma-dialettica dell'argomentazione (van Eemeren, 2018) combinata con l'*Argumentum Model of Topics* (AMT – Rigotti & Greco Morasso, 2010; Rigotti & Greco, 2019). La tesi integra anche prospettive della psicologia socioculturale, permettendo di osservare l'argomentazione dei bambini come un'interazione sociale e comunicativa che avviene in un contesto specifico (cf. Muller Mirza et al., 2009).

I principali risultati indicano che i bambini mettono frequentemente in discussione gli argomenti dei loro interlocutori (sia dei pari che degli adulti). In particolare, problematizzano e tentano di ridiscutere le premesse materiali e contestuali di tali argomenti e le *issues* proposte dagli adulti nell'interazione. Gli adulti non sempre accolgono queste iniziative critiche, sia a causa di difficoltà pratiche legate alla gestione della classe, sia perché le sottodiscussioni aperte dai bambini sono percepite come tentativi di deviare la conversazione.

Quando le sottodiscussioni aperte dai bambini si sviluppano e raggiungono una conclusione, solitamente contribuiscono alla risoluzione della discussione argomentativa principale, a meno che gli interlocutori non violino qualche regola del codice di condotta ideale di una discussione critica (cf. van Eemeren & Grootendorst, 2004), cosa che provoca l'abbandono dell'intera discussione.

Infine, dopo la conclusione di una sottodiscussione, l'interazione solitamente continua come se la sottodiscussione non sia mai avvenuta. Pertanto, la sottodiscussione funziona generalmente come una parentesi all'interno dell'interazione. Tuttavia, in pochi casi, le sottodiscussioni hanno lasciato tracce nel seguito dell'interazione, indicando che la sottodiscussione aperta dal bambino ha orientato il discorso in una direzione che può non coincidere con lo sviluppo atteso della discussione gestita dall'adulto.

Questa tesi intende fornire un contributo empirico al campo della teoria dell'argomentazione esplorando un concetto che non sembra aver ricevuto molta attenzione finora e illustrando il suo svolgimento in un contesto educativo specifico. Inoltre, attraverso l'osservazione delle sottodiscussioni dei bambini, questo lavoro mira a migliorare la comprensione dell'attività del bambino in situazioni argomentative e a suscitare riflessioni sulla partecipazione e sullo spazio dei bambini nel discorso argomentativo. Più specificamente, la tesi riconosce il bambino come un interlocutore attivo nelle discussioni argomentative e sottolinea che l'apertura di una sottodiscussione da parte di un bambino è l'occasione che permette di rendersi conto che il bambino interpreta la situazione dal suo punto di vista, il quale potrebbe essere diverso da quello atteso dall'adulto.

Parole chiave: sotto-discussione, argomentazione bambini-adulto, *common ground*, premesse implicite, attività all'asilo, iniziative dei bambini, conseguenze sull'interazione.

To my Family

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1. Introduction

Studies on argumentative activities involving children are relatively recent, since interest in children's argumentation has been generally underestimated. Despite some controversies on the emergence and development of children's argumentative skills (cf. Cisterna & Garayzábal, 2017; Golder, 1993; Muller Mirza et al., 2009; Perret-Clermont et al., 2015), many recent studies have been pointing out how young children actively participate in argumentative discussions (cf. Greco & Perret-Clermont, 2022; Bubikova-Moan & Sandvik, 2023). However, a better understanding is needed of children's reasoning and their interactive strategies in argumentative discussions.

Within this stream of research, this doctoral thesis explores the under-investigated phenomenon of children opening subdiscussions within ongoing argumentative interactions with peers and adults. This phenomenon emerged within a recent project named “Analysing children’s implicit argumentation: Reconstruction of inferential-procedural and material-contextual premises” (henceforth: ArgImp) funded by the Swiss National Science Foundation (SNSF).¹ The objective of ArgImp was to better understand the reasoning of preschooler (two- to six-year-old) children when they produced argumentation, by studying the implicit components of their argumentative contributions in children-adult discussions (Greco et al., 2018). In the analysis of some argumentative discussions between children and adults (teachers, experimenters, or parents), Greco (e.g., Greco et al., 2015; Greco et al., 2017) and then Schär (2018a, 2021) noticed that the discussants' divergent implicit premises could lead to the emergence of a subdiscussion: in other words, a misunderstanding within an already existing argumentative situation provoked the emergence of a new *issue* (i.e., a *sub-issue*).²

This disclosure is worthy of further exploration (Schär & Greco, 2018), since it could enhance the understanding of children's reasoning and their active engagement in argumentation. Therefore, this dissertation intends to take a step further and deeply examine what happens when children open and engage in subdiscussions.

The notion of subdiscussion, within the literature on argumentation studies (cf. Chapter 2 of this dissertation), refers to a discussion embedded in another discussion (cf. Krabbe 2003), which emerges when, within an ongoing discussion, some aspect of an interlocutor's utterance is put into question and re-discussed (van Eemeren et al. 1993). The subdiscussion is described as a possibility for the discussants to determine “whether a proposition that was initially not agreed upon can be accepted in the second instance” (van Eemeren & Grootendorst, 2004: 55). Thus, the subdiscussion is a way to reach a fundamental preliminary agreement between the discussants: if the interlocutors do not share the starting points of a discussion, how is it possible for them to discuss?

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² NB: the expressions “opening sub-issues” and “opening subdiscussions” point at the same phenomenon. Following Schär's definition of *issue* (Schär, 2018, 2021), *sub-issues* are the questions around which subdiscussions revolve.

Although this apparent important role, subdiscussions seem to have received little attention in empirical research so far.

In the context of children-adult argumentation, it becomes particularly relevant to study how this process of negotiation works, since misalignments and discrepancies of points of view between children and adults appear to be frequent (cf. Giglio, 2010; Greco et al., 2017; Perret-Clermont et al., 2019; Iannaccone et al., 2019; Kohler, 2020; Schär, 2021). Hence, this dissertation, focusing on subdiscussions in the context of children-adult argumentation, provides an important empirical contribution to the domain of argumentation theory by exploring a concept that does not seem to have been thoroughly studied yet, and by illustrating how this can unfold in a specific context.

Some considerations about interdisciplinarity

Before announcing the structure of this thesis, it is crucial to make some considerations about the interdisciplinarity of this work.

This thesis project was conducted at the Institute of Psychology and Education of the University of Neuchâtel. Considering the researcher's original educational background, this dissertation is largely rooted in linguistic approaches to argumentation³. The intention is to borrow concepts and tools from these approaches to achieve a double aim: on the one hand, to enlighten the phenomenon of subdiscussion in argumentation theory from a linguistic perspective; and, on the other hand, to enhance the comprehension of children's participation in argumentative interactions.

Besides this, the choice of an interdisciplinary study was made to attempt reaching a more comprehensive understanding of the phenomenon under investigation (cf. Rigotti & Cigada, 2013: 61-63).

The interdisciplinarity of this research is exemplified in the data analysis presented in Chapter 4. This chapter reconstructs and examines subdiscussions using methods from Argumentation Theory, while also incorporating insights from sociocultural psychology to achieve a deeper understanding of the interactions. At a macro level, the interdisciplinarity is also evident in the overall structure of this work. Chapter 5, for example, is divided into two parts: the first one discusses the findings from a linguistic perspective and highlights the contributions of this study on the concept of subdiscussion to the domain of argumentation theory; the second part looks at the findings situating them within the context of literature on children's argumentation, and reflects on how they enlighten the understanding of the child's activity in argumentative interactions from a psychological perspective.

³ In chapter 3, it will be specified the type of linguistic analysis employed in this dissertation.

Structure of the thesis

Following this introductory chapter, the dissertation is organized as follows:

Next chapter (Chapter 2) establishes the theoretical framework grounding this research. In particular, section 2.1 outlines the linguistics-based approach to argumentation adopted to study subdiscussions, while section 2.2 integrates psychological insights that will be taken into consideration. Subsequently, a literature review of the concept of subdiscussion, which is central to this thesis, is proposed in section 2.3. Section 2.4 explores the relationship between subdiscussion and inference, introducing an analytical tool that will result extremely valuable for the investigation. Section 2.5 proposes a design perspective to the study of argumentation and describes how this can be useful for understanding the phenomenon of subdiscussion. Finally, section 2.6 formulates the problematization and the research questions that will be specifically addressed in this work.

Chapter 3 presents the methodology adopted for the realization of this research, starting from the criteria for the data collection (section 3.1), where it is explained how this project was conducted during the Covid-19 pandemic and how the latter influenced some initial choices. Section 3.2 provides a description of the corpus that was built for the investigation and of its setting. Finally, section 3.3 is dedicated to the transcription system employed for the preliminary phase of the data processing, and section 3.4 outlines the procedure of analysis and the annotation scheme used to address the research questions.

Chapter 4 describes the findings of this research and is articulated as follows: section 4.1 offers a general overview of the subdiscussions identified in the corpus, section 4.2 examines the distribution of subdiscussions with respect to the type of activity in which they emerged, section 4.3 illustrates how the process of the subdiscussion unfolded, and finally, section 4.4 explores the consequences of subdiscussions on the course of the interactions in which they emerged.

Chapter 5 returns to the research questions and proposes a discussion of the findings considering both the context of argumentation theory literature (section 5.1) and that of children's argumentative studies (section 5.2).

Chapter 6 draws the conclusions of this work, by summarizing how this study on children-initiated subdiscussions offers contributions to the domain of argumentation studies both from a linguistic and from a psychological perspective.

2. Theoretical framework

This chapter illustrates the theoretical framework on which this dissertation is grounded. As anticipated (Chapter 1), this work largely draws upon argumentation theory from a linguistic perspective, yet it also integrates psychological insights to provide a more comprehensive understanding of the phenomenon under examination, i.e., the occurrence of subdiscussions in children-adult argumentative interactions.

The chapter is structured into six parts. Initially, section 2.1 presents the linguistics-based approach to argumentation adopted in this work. Following this, section 2.2 introduces a psychological perspective integrated into the argumentation framework. Section 2.3 then offers a comprehensive literature review of the concept of subdiscussion, which is at the core of this thesis. Section 2.4 deals with inference in argumentation and explores how this is relevant for the study of subdiscussions, and section 2.5 proposes a design perspective to argumentation. Finally, section 2.6 articulates the problematization and the research questions that the thesis seeks to address.

2.1 A linguistics-based approach to argumentation

The subject of argumentation attracts scholars from various disciplines, including philosophy, linguistics, psychology, education, and artificial intelligence, among others, which together constitute the field known as "Argumentation Theory". This dissertation primarily adopts a linguistics-based approach to argumentation and integrates insights from sociocultural psychology (cf. section 2.2).

An essential aspect of inquiry for argumentation scholars involves the development of theories and models aimed at comprehending the principles of argumentative discourse and its linguistic performance. Within this landscape of theories and models, this study centers on pragma-dialectics, a theory of argumentation formulated starting from the 1970s by Frans van Eemeren and his colleagues at the University of Amsterdam. The objective of pragma-dialectics is to examine the dialogical process aimed at the resolution of differing opinions.

Before delving into the specifics of pragma-dialectics (section 2.1.1), it is relevant to elucidate the reasons for the choice of this model.

Firstly, pragma-dialectics allows to examine argumentation as a social communicative interaction that takes place within a specific context (van Eemeren & Grootendorst, 2004, p.22), which is crucial for this dissertation that aims to observe children's activity *in interaction*. In this work, in fact, the argumentative moves of the discussants are not analyzed as an "isolated individual product", but argumentation is observed 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). In this sense, pragma-dialectics is coherent with a *dialogical*

perspective to argumentation, which has been shown to allow for a better understanding of children's argumentative contributions (Perret-Clermont et al. 2019; Bubikova-Moan & Sandvik, 2023; see also section 2.2).

The second reason for adopting the pragma-dialectical theory of argumentation is that it has developed concepts and tools that are pertinent for this study, such as the very concept of subdiscussion, which is the kernel of the thesis (cf. section 2.3).

Lastly, the pragma-dialectical model can be read through a design perspective to argumentation (Jackson, 2015), which this dissertation takes into account (cf. section 2.5).

2.1.1 The concept of argumentative discussion: the pragma-dialectical approach

As mentioned above, the pragma-dialectical theory is one possible approach to study the phenomenon of argumentation. Within pragma-dialectics, argumentation is defined as:

(...) a verbal, social and rational activity aimed at convincing a reasonable critic of the acceptability of a certain opinion by advancing one or more propositions designed to justify that standpoint. (van Eemeren & Snoeck Henkemans, 2016, p. 1)

From this quote, some significant considerations can be underlined. Firstly, argumentation is a “verbal” activity, meaning that it is performed mainly through language. Secondly, it is a “social” event, thus it is an interaction between two parties⁴ that take the dialectical roles of proponent and opponent, with respect to the views being put forward. Third, argumentation is a “rational” activity, which means that it involves intellectual faculties, reasoning.

According to the pragma-dialectical model, in a critical discussion⁵ “(...) the parties involved in a difference of opinion systematically try to determine whether (...) the standpoints at issue are defensible in the light of critical doubt or objections” (van Eemeren & Grootendorst, 2004, p. 52). The critical discussion sums up the two dimensions involved in pragma-dialectics, that are, intuitively, pragmatics and dialectics. The dialectical component involves the “methodical exchange of discussion moves” (van Eemeren & Grootendorst, 1984, p. 22), while the pragmatic aspect entails seeing these discussion moves “as speech acts that are performed in a specific situation and context” (ibidem)⁶.

In this perspective, van Eemeren and Grootendorst (1984; 2004) developed a model to define the (ideal) procedure that the parties of a discussion must go through to resolve

⁴ The expression “two parties” does not necessarily mean “two individuals”. The two roles (proponent and opponent) can be played at the same time by one individual, as it is the case with the inner monologue (cf. van Eemeren and Grootendorst, 1984, p.59).

⁵ Pragma-dialectic scholars use this term to refer to argumentation. Reasonableness and critical evaluation are crucial for an (ideal) argumentative practice. This involves that the argumentation parties shall be willing to enter an exchange of views and to critically test the reasonableness of the arguments advanced in the discussion.

⁶ Van Eemeren and Grootendorst took inspiration from Austin's and Searle's theory of speech acts, and from Grice's theory of conversation (cf. van Eemeren & Grootendorst, 1984).

their difference of opinion. The *ideal model of a critical discussion* is ideal, not only because real-world discussions often deviate from the pattern, but mainly because the model aims to determine how an argumentative discussion should be structured if it were geared toward the resolution of a difference of opinion on the merits.

Moreover, the stages of an ideal critical discussion are not representative of a temporal sequence, but they illustrate “an argumentative exchange optimally suitable to resolving a difference of opinion on the merits” (van Eemeren, 2018, p.33). Hence, the model performs both a heuristic and a critical function in the analysis and evaluation of argumentative discourse (van Eemeren & Grootendorst, 1984).

The ideal model of a critical discussion consists of four stages. The first one is the *confrontation stage*, that is the moment when a difference of opinion between the interlocutors is established. This can happen when “a standpoint is not accepted because it runs up against doubt or contradiction” (van Eemeren & Grootendorst, 2004: 60); in the case of doubt, the difference of opinion is called “non-mixed”, while it is “mixed” in the case of contradiction (ibidem). Furthermore, van Eemeren and Grootendorst claim that “the difference of opinion can be expressed explicitly, but in practice it may well remain implicit. In the latter case, it is either *assumed* in the argumentative exchange of views that a difference of opinion exists or the possibility of a difference of opinion is *anticipated*” (ibidem, my emphasis). This is particularly important to take into account when observing, for example, talk-in interaction, since interactants interpret the situation they are in and the discursive moves of their interlocutors, and they respond accordingly. This makes it possible, for example, that a locutor advances arguments for a standpoint because he or she *thinks* that their interlocutor might not accept his/her proposition without supporting reasons, even though the standpoint has not yet actually been confronted (cf. the notion of “virtual standpoint” in van Eemeren et al., 1993).

After the confrontation stage comes the *opening stage*. Here the parties “determine the common starting points on which their exchange will be based and adopt the role of protagonist and antagonist” (van Eemeren, 2018: 37). Starting points are *procedural* when the propositions concern the discussion format and rules, while they are called *material* when the propositions concern the background knowledge of the interlocutors, such as facts, suppositions, truths, values, norms, beliefs. These propositions can be summoned during the argumentative exchange and constitute the common ground of the discussion, which is necessary for a discussion to be conducted in a critical way (van Eemeren & Grootendorst, 2004).

The third stage is the *argumentation stage*. This is the place where the protagonist puts forward the arguments in defense of his own point of view to overcome the antagonist's doubts or criticisms. The latter replies and demands further interventions until he/she finds the standpoint acceptable or until the protagonist is no longer able to justify the standpoint. The protagonist may advance a single argument or more arguments; in the first case, the argumentation is “simple”, in the second case the argumentation can be

“multiple”, “coordinative”, “subordinative”, or a combination of all these (van Eemeren, 2018)⁷.

Finally, the *concluding stage* is achieved when participants determine “whether the protagonist’s standpoint has been properly defended against the critical responses of the antagonist” (van Eemeren, 2018: 37). If this happens, the discussion is resolved in favor of the protagonist and the antagonist must retract his/her doubt. On the contrary, if the protagonist’s standpoint has not been defended properly and the antagonist does not retract his/her doubt, the standpoint must be withdrawn, and the discussion ends in favor of the antagonist (ibidem).

Besides the idea of creating a dialectical procedure to regulate an ideal critical discussion, van Eemeren and Grootendorst also defined a set of rules with the purpose to guide discussants towards a reasonable resolution of a disagreement on the merits. These rules are known as “the code of conduct for critical discussants” (van Eemeren & Grootendorst, 2004).

The table hereunder provides a version of the code of conduct in “ten commandments”, taken from van Eemeren & Grootendorst (2004: 190-196).

Rule	Description
1) The freedom rule	“Discussants may not prevent each other from advancing standpoints or from calling standpoints into question.”
2) The obligation-to-defend rule	“Discussants who advance a standpoint may not refuse to defend this standpoint when requested to do so.”
3) The standpoint rule	“Attacks on standpoints may not bear on a standpoint that has not actually been put forward by the other party.”
4) The relevance rule	“Standpoints may not be defended by non-argumentation or argumentation that is not relevant to the standpoint.”
5) The unexpressed-premise rule	“Discussants may not falsely attribute unexpressed premises to the other party, nor disown responsibility for their own unexpressed premises.”
6) The starting-point rule	“Discussants may not falsely present something as an accepted starting point or falsely deny that something is an accepted starting point.”
7) The validity rule	“Reasoning that in an argumentation is presented as formally conclusive may not be invalid in a logical sense.”
8) The argument scheme rule	“Standpoints may not be regarded as conclusively defended by argumentation that is not presented as based on formally conclusive reasoning if the defense does not take place by means of appropriate argument schemes that are applied correctly.”
9) The concluding rule	“Inconclusive defenses of standpoints may not lead to maintaining these standpoints, and conclusive defenses of

⁷ Refer to chapter 5 in van Eemeren, Grootendorst and Snoeck Henkemans (2002) for an extensive illustration on argumentation structures.

	standpoints may not lead to maintaining expressions of doubt concerning these standpoints.”
10) The language use rule	“Discussants may not use any formulations that are insufficiently clear or confusingly ambiguous, and they may not deliberately misinterpret the other party’s formulations.”

Figure 2.1: *The code of conduct for reasonable discussants*
 (from van Eemeren & Grootendorst, 2004: 190-196)

This overview of pragma-dialectical concepts sets the ground for the type of argumentative analysis that this dissertation provides. The critical discussion and its code of conduct will serve as guides to interpret the real-life interactions that will be observed (cf. Chapter 3 in this dissertation). For example, the model of critical discussion will be useful to observe in which moment a subdiscussion emerges within the ongoing argumentative discussion, and to examine the unfolding of subdiscussions, which are discussions themselves. Besides, the code of conduct can serve as reference to observe whether rules are respected or not in the subdiscussion, if not why, and what the respect or non-respect of the rules implies for the interaction (perhaps the interruption of the discussion?). The intention of the thesis, however, is not to judge whether children’s or adult’s argumentation is “good” or “fallacious” (cf. van Eemeren & Grootendorst, 1992), but to observe and be able to describe what can happen in real argumentative practices.

A further element proposed in pragma-dialectics, which is significant for this research, is the possibility to reconstruct argumentative discourse through an *analytic overview* (van Eemeren, 2018: 89-109). The analytic overview of an argumentative discourse recapitulates the main elements of a critical discussion, such as the parties’ standpoints, their roles in the discussion, the arguments advanced and their structure. Digits and letters are used to display the structure of argumentation. So, for example, an argument for a standpoint “1” is represented as “1.1”. If a second different argument is present, it is displayed as “1.2” (and so on). If argument “1.1” is itself supported by a further argument (*subordinate argumentation*), the latter is indicated as “1.1.1”. Another possibility is when a standpoint “1” comes with two arguments, which support that standpoint only if taken together (*coordinate argumentation*): these arguments are displayed as “1.1a” and “1.1b”.⁸

Reconstructing argumentative discourse is a crucial step in this study, since it enables, first, to identify discussions with the occurrence of subdiscussions, and second, to visualize the components of these argumentative exchanges. Chapter 3, subsection 3.4, will elaborate on how the analytic overview is employed and adapted for the specific analysis conducted in this dissertation.

⁸ These are examples of possible argumentation structures. As mentioned already in the previous footnote, van Eemeren, Grootendorst and Snoeck Henkemans (2002) offer a detailed presentation of this topic.

After establishing a foundational understanding of argumentation through a linguistic lens, the subsequent section shifts the focus on children's argumentation from a psychological viewpoint.

2.2 Children's argumentation studies and psychological insights

There are various streams of studies focusing on children's argumentation in different actual practices and contexts (such as the school context, or the family setting), in more formal or informal situations, in interaction with peers or with adults.

From a psychological viewpoint, argumentation (and children's argumentation) has gained much interest because of its ubiquity and its (still not fully explored) relationship with thinking and learning (Asterhan & Schwarz, 2007; Larraín, 2017; Larrain et al., 2014; Leitão, 2000; Mercer et al., 2004; Pontecorvo & Girardet, 1993).

As anticipated, this work takes into consideration insights from sociocultural developmental psychology, a discipline that combines the study of the process of human development with the observation of the specific context in which this development occurs. As Perret-Clermont (1993) puts it, "Children think, not in a vacuum, but in social and interpersonal contexts in which there are problems to solve, messages to transmit, goals to be attained (...)" (p. 198).

From a psychosocial perspective, argumentation requires an individual, an interlocutor, and an object (which in pragma-dialectical terms are respectively the protagonist, the antagonist and the issue, or subject of the discussion) about which there is a divergence of points of view. A fourth crucial element is mediation tools (Muller Mirza et al., 2009). With respect to children's argumentation, there is an important debate about the emergence and development of argumentative discourse in children. Some scholars claimed that argumentative skills seem to appear in children quite late (Dolz, 1996; Felton & Kuhn, 2001; Kuhn, 1991). Yet, other researchers, though realizing that argumentation could be specifically mastered in adolescence, believe that argumentative skills emerge very early in development (Eisenberg & Garvey, 1981; Kyratzis et al., 2010; Orsolini & Pontecorvo, 1992; Stein & Bernas, 1999; Stein & Miller, 1993; Völzing, 1981).

According to Muller Mirza et al. (2009):

Argumentation involves cognitive, interactive and dialogical processes of meaning-making. It does not take place in a social vacuum, but in an institutional and cultural context. So dimensions that have to be taken into account include the individuals with their own cognitive and communicational capacities, the interlocutors with their status and intentions, the topic under discussion, the mediation tools used, and the sociocultural context. (p.68)

Thus, when observing argumentation, these interdependent dimensions must be taken into account: the intrapersonal dimension, the dialogical and interpersonal dimension, the content of the argumentation, mediation tools, and the sociocultural dimension.

Intrapersonal dimension of argumentation

Claiming that preschooler children are able to argue entails some consequences related to the processes that are involved in argumentation. According to Muller Mirza et al. (2009), argumentation implies some cognitive requirements such as: the ability to distance from one's own discourse (decentration) and envisage it as one among other possibilities; the ability of attributing mental states to the other (Theory of Mind; see for example Lombardi et al. (2018); Wellman (1990)); relating one's point of view to that of others; and the ability of providing justification and evidence.

Apart from cognitive prerequisites, Muller Mirza et al. (2009) also point, within the intrapersonal dimension of argumentation, at the importance of considering the affective component of argumentation (cf. Plantin, 2004). Engaging in argumentative situations involves commitment, emotions, tensions between personal and social aims, and so on (Stein & Albro, 2001).

Finally, Muller Mirza et al. (2009) discuss the importance of the "individual's relationship with the subject of the discussion" (pp. 73-74). For a productive argumentative exchange, the individual must perceive the object of the discussion as meaningful for him/her, "interesting" as Cigada (2006) would say, or in the words of Golder (1996) "discussable".

Dialogic and interpersonal dimension of argumentation

When defining argumentation in section 2.1.1, it was said, among other things, that argumentation is a "social" activity. Iannaccone and Arcidiacono (2017) explain that this notion of "social" can be interpreted mainly in two different ways, following two theoretical positions that are not always convergent, namely: monologism and dialogism.⁹ A monological view of argumentation, though recognizing the necessity of at least two discussants, would observe argumentation as an individual competence enabling the study and categorization of arguments, paying attention to the logical and syntactical complexity of the language used. In the dialogical perspective, instead, argumentation cannot be reduced to the mere individual's utterances. Dialogism focuses on the interdependency between Self and Other (for simplicity, in our case, we could say the interlocutors) in the processes of reciprocal comprehension and meaning making (Marková, 2005; 2016). Hence, "(...) by its essence argumentation is a relationship with an "other", who may or may not be physically present, but whose contradictory or sceptical voice contributes to the emergence of argumentation" (Muller Mirza et al., 2009, p. 74).

Taking a dialogical approach is fundamental to gain a better understanding of children's contributions (Perret-Clermont et al., 2019), as the dynamics of an argumentation are

⁹ For further understanding of these concepts, the reader can refer to Linell (2009) and Grossen (2021).

affected, among other things, by the status of the interlocutor (peer-peer interactions or asymmetric interactions, like adult-children, imply different complexities).

Furthermore, the meaning of all interventions is constructed by “what precedes and what follows them in a chain of discourse; argumentation is therefore the product not of an isolated thought but of cooperation by the participants” (Muller Mirza et al., 2009: 75).¹⁰

The content of the argumentation

As already mentioned, the content of the argumentation is also a component to take into consideration when observing an argumentative interaction. Besides the individual’s relationship with it, the topic of a discussion imposes certain constraints on the exchange (cf. Muller Mirza et al., 2009).

Mediation tools

Argumentation is also influenced by mediation tools, which according to their characteristics have a role in the way the individual argues. Muller Mirza et al. (2009) point, for example, at the differences between oral and written argumentation (cf. also Golder, 1996) and at the increasing use of technology in facilitating argumentation.

Sociocultural dimension of argumentation

Another relevant point that cannot be neglected is the context where argumentation takes place (Perret-Clermont et al., 2015; Perret-Clermont et al., 2014). “One cannot make sense of a piece of discourse outside of its relevant context (...)” (Linell, 2009, p. 16). Argumentation is always “situated” (Muller Mirza et al. 2009). It occurs in specific socio-cultural contexts, which orient, constrain and shape the discourse.¹¹

In studying subdiscussions in children-adult argumentation, contextual aspects, such as the place and time of the discussion, the institution where it happens, the activities during which it arises, the cultural references (ex. values, norms), will be taken into account (cf. Chapter 3).

In the following section, attention is directed to the notion of subdiscussion, which is at the heart of the investigation. A literature review of the concept is proposed to reconstruct how subdiscussions are conceived and understood in the domain of argumentation studies.

¹⁰ Cf also the idea of “responsive understanding” by Bakhtin (1981).

¹¹ For example, consider how the school context, defined by the presence of specific roles, rules and norms, constrains and moderates the possible types of discourse (cf. Breux & Perret-Clermont, 2014).

2.3 The concept of subdiscussion

In the domain of children's argumentation, the phenomenon of subdiscussion does not seem to have been systematically studied. The notion of "subdiscussion" emerges in the literature of argumentation studies, in particular it appears within the framework of pragma-dialectics, however it seems to be given a marginal role. Hence, this section attempts to provide an extensive review to clarify this concept and its relevance for argumentation theory.

Subsection 2.3.1 presents the concept as it is conceived in pragma-dialectics, while subsection 2.3.2 explores related terms such as meta-dialogue and meta-discussion that came to surface during an examination of the literature. The proximity of these terms to the concept of subdiscussion and their potential contributions to its comprehension is examined. Subsection 2.3.3 highlights some research that reflected on the emergence of subdiscussions. Furthermore, subsection 2.3.4 offers an overview of studies mentioning instances of subdiscussions, with section 2.3.5 specifically focusing on examples within the context of children's argumentation. Finally, some conclusive remarks about this review of the concept of subdiscussion are drawn in subsection 2.3.6.

2.3.1 Subdiscussions in Pragma-Dialectics

In one of their first works regarding pragma-dialectics, van Eemeren and Grootendorst (1984) introduced a distinction between the notion of "dispute" and that of "discussion" (p. 89). A dispute is a failure of agreement that arises from the externalization of a difference of opinion between two parties, while a discussion entails the exchange of arguments aimed at resolving the dispute. Within such discussion, a new dispute may emerge regarding propositions raised during the dialogue. This new dispute, termed "sub-dispute", might lead to a subsequent discussion, i.e., a "subdiscussion" (ibidem). Thus, within pragma-dialectics, a subdiscussion is a discussion occurring within another discussion.

Furthermore, following the ideal model of a critical discussion (cf. subsection 2.1.1), for a discussion to take place and for a difference of opinion to be possibly resolved, parties must agree on some starting points during the opening stage¹². Van Eemeren and Grootendorst (1992) note that "a proposition that has the status of an accepted starting point" (p. 150) may be called into question during the discussion; if this happens, such proposition "loses its status as a common starting point", thus becoming "the standpoint at issue in a new discussion" (ibidem), i.e., the sub-standpoint of a subdiscussion.

This is significant for our understanding of the notion of subdiscussion, since it points out that subdiscussions might ideally occur at the opening stage of a critical discussion, that is when starting points are established.

¹² It is clear, and the authors realize it themselves, that "prior agreements about the point of departure are the exception rather than the rule" (van Eemeren & Grootendorst, 1992: 150). In real-life conversation, this step usually remains implicit, and the discussants rely on their own interpretation of the starting points they may share with the interlocutor.

In their later work, while systematizing the code of behavior for reasonable discussants (cf. also subsection 2.1.1), van Eemeren and Grootendorst (2004) elaborate on the form and function of subdiscussions. They propose that “discussants can decide in the opening stage to allow for a subdiscussion to be conducted in which it is determined whether the proposition on which agreement was first lacking can be accepted in the second instance. The protagonist will then have to take a positive sub-standpoint with regard to the proposition concerned, and defend it against possible objections and criticisms of the antagonist. This subdiscussion must be conducted in accordance with the same premises and the same discussion rules accepted in the original discussion” (van Eemeren & Grootendorst, 2004: 147). Hence, subdiscussions can serve as a possibility for discussants to reassess the acceptance of a proposition initially lacking agreement: the parties realize that some presupposition that has been taken for granted in the ongoing discussion is not shared and through the subdiscussion they can examine it.

A further possible utility of subdiscussions is mentioned in van Eemeren and Houtlosser (2007). In this work, the authors focus on fallacies and how to repair them. While studying this, they advance the following idea:

“(…) the party who observes that something has gone wrong should maneuver in such a way that at the same time the derailment is recognized and a “re-railment” takes place that brings the discussion back on track. This means that then a meta-dialogue or sub-discussion develops in which the alleged fallacy is responded to and readjusted appropriately” (van Eemeren & Houtlosser, 2007, p.243).

Hence, following the authors, the subdiscussion can also serve as a means to resolve a fallacious move.

As regards how discussants can start a subdiscussion, an example appears in van Eemeren et al. (2007). Here the focus of the authors is on illustrating the concept of “dialectical profile” (cf. also van Eemeren & Houtlosser, 2007; van Eemeren, Houtlosser, Snoeck Henkemans, 2008; van Eemeren, Garssen, Verheij, Krabbe and Snoeck Henkemans, 2014; van Eemeren, 2018). A dialectical profile is a tool mapping out the various possibilities of argumentative moves that interlocutors can choose in a given argumentative situation. In the overview, one can also see the consecutive moves that follow a certain move.

Subdiscussion, in this scenario, is a possible “dialectical route” in a critical discussion where the participants are establishing a starting point (see the following figure).

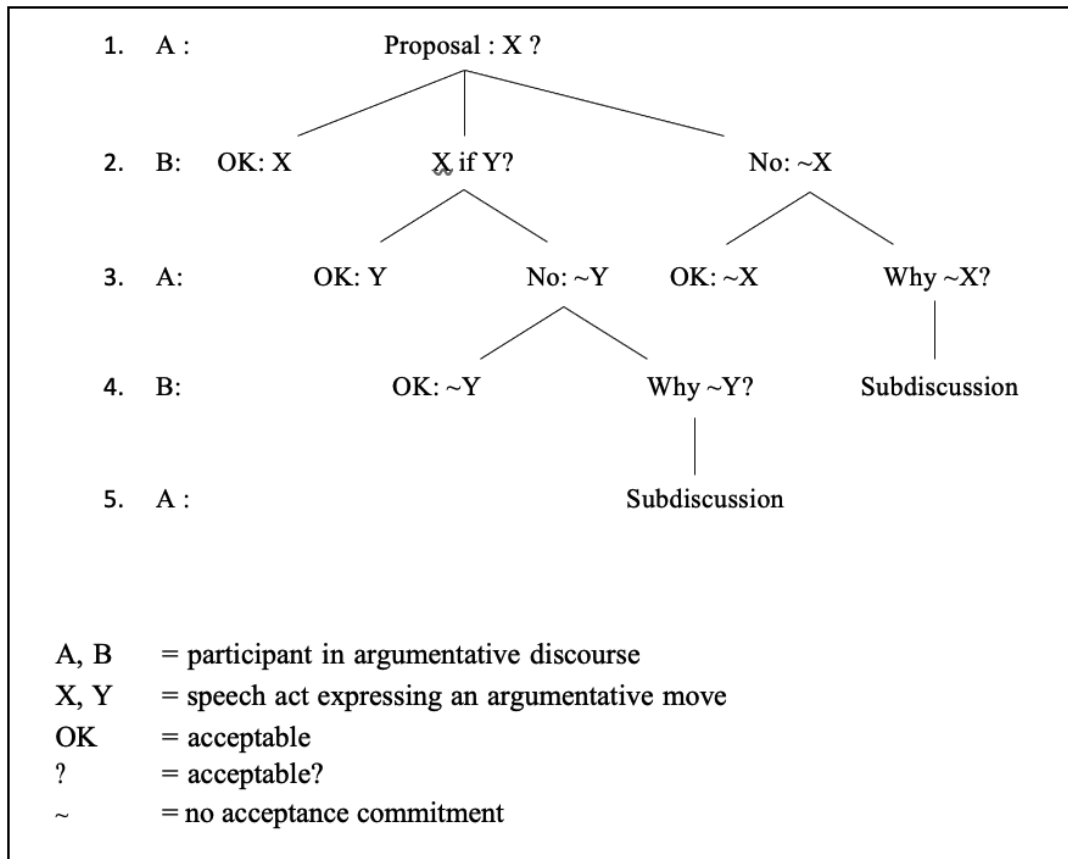


Figure 2.2: Example of dialectical profile of establishing a starting point (from van Eemeren, 2018: 44)

For a complete explanation of all the moves in the diagram, see van Eemeren (2018, pp. 44-45). Here the focus is on turn 4, since it is where the phenomenon under investigation occurs. In the illustration, the subdiscussion is a possible route in case interlocutor A asks interlocutor B to explain why B does not accept the proposed starting point X (move 4).

It is noteworthy to acknowledge that, in the contributions examined so far, the authors' attention lies not in the phenomenon of subdiscussion per se, but rather on other topics, such as for example the rectification of fallacies. This observation underscores my concern regarding the limited depth of investigation into the topic of subdiscussion. This point will be readdressed later in the dissertation (cf. 2.3.6).

The following subsection turns to the examination of some terms that seem ambiguously close to that of subdiscussion in argumentation literature, such as “meta-dialogue”.

2.3.2 Subdiscussion, Meta-dialogue and other terms: seeking clarification

The term “meta-dialogue” appeared previously in the quote by van Eemeren and Houtlosser (2007), in their paper on repairing fallacies. It came side-by-side with the term “subdiscussion”, which could suggest interchangeability between the two concepts.

The notion of meta-dialogue¹³ is explored by Krabbe (2003) and is defined as:

[...] a dialogue about a dialogue or about some dialogues. A dialogue that is not a metadialogue will be called a ground level dialogue. For instance, let the ground level dialogue be an argumentative discussion aiming at the resolution of some dispute. Then disagreement about the correctness of some move in this dialogue will constitute another dispute which the parties again may try to resolve by dialogue. This dialogue will then be a metadialogue relative to the first dialogue. It will be about this first dialogue and perhaps some related dialogues. Also, its primary purpose is to help this first dialogue achieve its end: in this sense the meta- dialogue will be embedded in the ground level dialogue. (Krabbe, 2003, p. 83)

This definition outlines the idea of levels, or layers, that a certain dialogue, such as an argumentative discussion, could develop. In this sense, despite a slight difference between the prefixes *meta-* and *sub-*, it seems possible to associate the concept of metadialogue to that of subdiscussion.

Moreover, Krabbe (2003) refers to van Eemeren and Grootendorst (1992) and states that in a critical discussion "the part of dialogue to discuss the proceedings of the dialogue is the opening stage" (p. 87). He also proposes a list of agreements that the participants of a discussion can define exactly at this stage, thus offering insights into the potential content of the metadialogue (or subdiscussion).

In the table below (figure 2.3), Krabbe's list is reported (from Krabbe, 2003, p.87) and a comment for each point is proposed.

1. "Engaging in dialogue to settle or resolve the dispute."	After the emergence of a dispute, the discussants can start a further discussion (metadialogue) about their willingness (or reluctance) to resolve the dispute through dialogue. Note that there can be other ways to resolve disputes, such as flipping a coin.
2. "Using persuasion dialogue (critical discussion) to resolve the dispute, rather than some other type of dialogue (to settle it)."	The discussants within a dispute can start a metadialogue about the type of dialogue with which they want to resolve the dispute.
3. "Adopting a particular dialectic system (specific rules) for the resolution of the dispute."	The discussants can have a discussion (metadialogue) where they agree on rules to follow in order to resolve the dispute.
4. "Assigning roles to participants."	There can be a metadialogue when the interlocutors discuss about who is the proponent and/or who is the opponent, or critic, with respect to a proposition that has started the dispute.

¹³ Note that van Eemeren and Houtlosser write "meta-dialogue" with the hyphen, while Krabbe uses "metadialogue". The same happens with "subdiscussion" which sometimes can be found with the hyphen. I take this as a simple indication that there is not a rigorously shared terminology concerning these concepts.

5. "Appropriate argument schemes and the conditions for their correct application."	The discussants can start a metadialogue about procedural components of the discussions, such as the modes of reasoning that can be used or not to support their propositions.
6. "Starting points that can serve as basic premises."	The participants of a discussion can engage in a metadialogue about the propositions they can use to support their standpoints.

Figure 2.3: List of agreements that can lead to metadialogue (from Krabbe, 2003)

The last point on the list follows what van Eemeren and Grootendorst (2004) explicitly say about subdiscussion. The other points concern more the rules and the procedure of a dialogue.

One might wonder what is then the relationship between metadialogues and subdiscussions, whether they are the same thing, or whether metadialogues include subdiscussions, for example. Though Krabbe does not use the term *subdiscussion*, it could seem from his definition that the two phenomena coincide. Years later, however, van Eemeren and Houtlosser (2009) make a clear distinction between the two concepts. According to them, subdiscussions refer to "critical exchanges about material premises", while meta-dialogues are "critical exchanges about procedural premises" (ibidem, footnote 1, p. 204). Arguably, they seem to distinguish the points in Krabbe's list (cf. Table II). However, in the literature, it does not seem that the distinction is rigorously respected. In fact, there are other scholars who recognize a difference between discussions on *procedural starting points* and discussions on *material starting points*, yet they happen to use different expressions. For instance, Dascal (2003) speaks of discussion on "meta-issues" as discussions on issues regarding the procedure of the discussion, and of "object-level" discussions regarding "content" (Dascal, 2003, p. 281). Greco (2011), while investigating argumentative activity in dispute mediation, uses terms such as "meta-discussion", or "meta-argumentative discussions". In the analysis of a specific case where the mediator starts a discussion within the discussion involving the two conflicting parties, Greco writes: "[...] a long meta-discussion on the appropriateness of the discussion on boundaries involves the mediator and the two parties. The mediator emerges here as the protagonist of a meta-argumentative discussion. [...] This meta-discussion is connected to the parties' main discussion over the resolution of their conflict [...]" (Greco, 2011, p. 176).

From these instances, at least it is possible to remark that authors make use of different terms, though referring to a similar phenomenon.

Returning to the distinction between "metadialogue" and "subdiscussion," certain scholars propose a differentiation based not on the level of the object under discussion (material or procedural), but rather on the stage of the discussion where these phenomena

occur. Visser et al. (2011), in their exploration of connections between computational models and pragma-dialectics, revisit the procedural rules of a critical discussion. They assert that “if a discussant wants to discuss the status of one of the agreed upon rules this happens outside of the current discussion, giving rise to a meta-discussion” (p.195-196). In a footnote, they specify that meta-discussion (which can be also named meta-dialogue by other scholars) should not be confused with subdiscussion. In fact, according to them, subdiscussion pertains to the argumentation stage of a critical discussion, while meta-discussion is “used to determine the common commitments of the discussants in the opening stage” (ibidem, footnote 10, p. 196). However, this perspective diverges from that of van Eemeren and Krabbe, who identified the opening stage as the moment where both subdiscussions and metadialogues can occur. In my view, one reason for this discrepancy might be the fact that the stages of the critical discussion proposed in pragma-dialectics illustrate an ideal model, meaning that real-life discussions (and subdiscussions) can deviate from the model. Perhaps Visser and co-authors point out that the dialogue revolving on premises does not usually happen at the opening stage in everyday discussions, as it does not seem “natural”.¹⁴

Another noteworthy term that appears in the literature is “meta-argumentation” (Cohen, 2001; Finocchiaro, 2007; Finocchiaro & Godden, 2011). It is explained as “arguing about arguments” (Finocchiaro & Godden, 2011, p.35) and it is related to the evaluative component of argumentation. Finocchiaro (2007), for example, writes:

[...] argument evaluation can be done seriously only if one gives reasons supporting the evaluative claim; such a reasoned evaluation is obviously an argument, and since the subject matter is the original argument, the evaluation is clearly a meta-argument. (Finocchiaro, 2007: 254)

According to Finocchiaro and Godden (2011), meta-argumentation is a possible contribution to solving deep disagreements¹⁵, which are disagreements “when the contending parties do not share any relevant beliefs, preferences, or resolution procedures” (Fogelin, 2005, cited in Finocchiaro & Godden 2011, p.3). For Boella et al. (2009), meta-argumentation can become a methodology and technique to model argumentation. According to them, people arguing about other people’s arguments is a common phenomenon. As an example:

¹⁴ In real-life conversation it is improbable that discussants before starting to discuss spend time establishing the starting points for their discussion. It is more likely that while advancing an argument (so, they have entered the argumentation stage) they realize that some aspect of the advanced argument is not shared.

¹⁵ “The end result is that radical disagreements are less intractable than commonly believed [...]. To deal with them more effectively one should learn and master principles and practices such as the following: [...] meta-argumentation, namely, to learn and master the art of arguing about arguments with as much care as that which many people advocate and display when arguing at the ground level about concrete or lower-level topics.” (Ibidem, p. 35)

[...] lawyers argue about the argumentation of suspects in a courtroom, citizens argue about the argumentation of politicians when making their voting decisions during elections, teachers may argue about the argumentation of their students when evaluating their exams, and parents may argue about their children's argumentation when arguing how to raise their children. We call this arguing about argumentation meta-argumentation. (Boella et al., 2009: 298)

This phenomenon is similar to what Greco (2023) describes in her recent research on activists' argumentative activity, though she uses the term subdiscussion (and not meta-argumentation). Within the debate about fashion sustainability, Greco proposes an argumentative analysis of activists' tweets where they "argue about some fashion companies' arguments". Greco illustrates how activists challenge brands' argumentation by opening subdiscussions, mostly on the definition of sustainability by targeting the *data* (i.e., a material starting point) that brands use in their argumentation. She claims that subdiscussions are used by activists as wedges, metaphorically speaking, to break into the discussion between brands and consumers.

As anticipated above, Greco chooses the term subdiscussion, but the connection with the idea of meta-argumentation seems evident.

Hence, from this brief terminological overview, it is possible to conclude that a shared standard terminology does not seem to exist. Perhaps it should also be taken into account the fact that the authors mentioned in this literature review are all argumentation scholars but working in different areas (ex. philosophy, logics, linguistics, argument mining). However, it can be remarked that, though the prefixes "meta-" and "sub-" do not coincide perfectly, the terms that can be derived from them seem to point at similar phenomena: discussions embedded in other discussions that can target different aspects (material or procedural) of the ongoing discussion.

This phenomenon is at least acknowledged from a theoretical point of view. Before exploring what empirical research says about subdiscussions (subsection 2.3.4), the following paragraph goes through some contributions that offer indications to better understand how the phenomenon of subdiscussion occurs.

2.3.3 About the emergence of subdiscussions

Thus far, it is apparent that subdiscussions emerge when some aspect of a critical discussion is not shared, problematized and re-discussed by the interlocutors. There are some contributions that provide more insights about how subdiscussions can emerge within already ongoing argumentative interactions.

Rocci (2021), in his work on counterarguments, proposes a new diagramming system that would extend traditional diagrams of the pragma-dialectical argumentation structure. He writes that critical reactions in an argumentative discussion "can concern either the acceptability of the propositional content of the arguments or their relevance and sufficiency as means of proof and can amount either to the simple expression of doubt or to counterarguments" (Rocci, 2021, p. 144). Quoting van Eemeren et al. (2007: 193),

Rocci claims that when the antagonist raises “an objection that makes clear why he does not accept the argument as a defense of the standpoint”, he ends up “defending a particular standpoint of his own”, giving rise to a mixed sub-dispute.

Therefore, according to Rocci, a subdiscussion can happen as a consequence of a counterargument. Counterarguments can be of two types: rebuttals, which challenge the acceptability of a claim or a premise supporting a claim, and undercutters, which target the inferential link between argument and claim (cf. Palmieri & Musi, 2020). This contribution is important as it sheds lights about a possible way with which subdiscussions emerge; however, whether there are other ways for a subdiscussion to emerge is not clear so far.

Schär’s contribution is also noteworthy (Schär 2018a, 2021) for exploring how subdiscussions can emerge, since she worked on how issues emerge. Moreover, her focus was on children’s argumentation, as it is in this research. Schär proposed a typology of the emergence of issues in everyday family conversations between children and their parents. Eight different types of emergence of issues were identified, according to what had been found in her data (see figure 2.4). The cases that are relevant for this dissertation are 1B (a child problematizes something in an adult’s utterance and opens up a sub-issue) and 2B (an adult problematizes something in a child’s utterance and opens up a sub-issue).

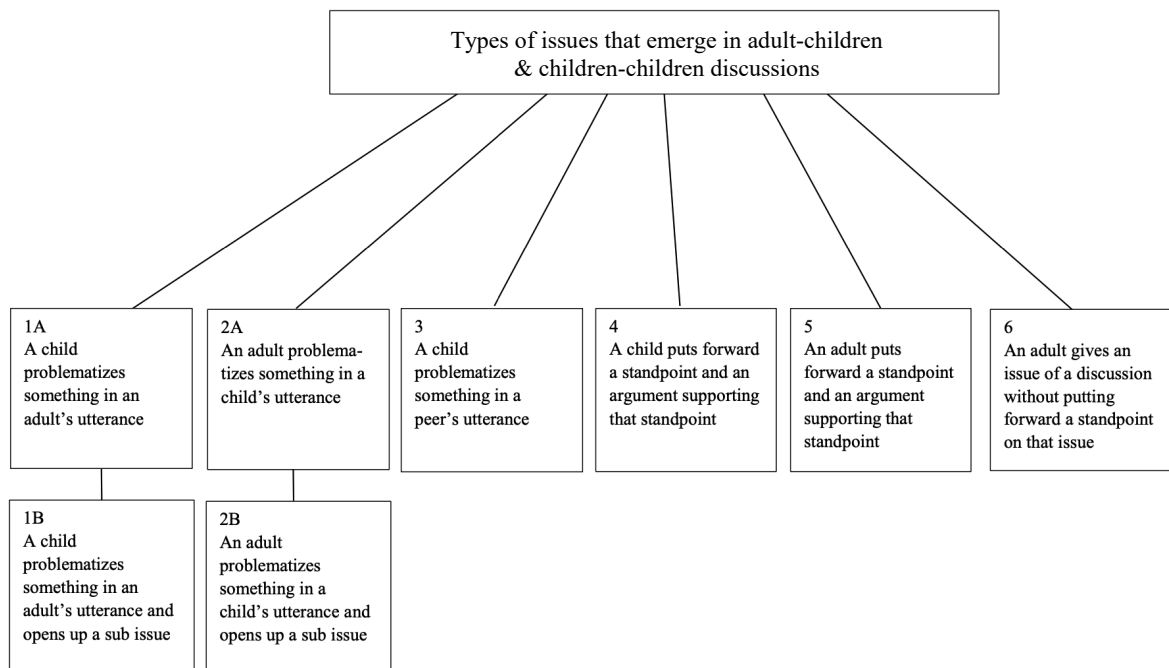


Figure 2.4: Typology of the emergence of issues in discussions with young children (from Schär, 2018a: 141)

Schär's focus was at the level of the confrontation stage (van Eemeren & Grootendorst, 1992, p. 35). She examined how argumentative discussions start, since "theories of argumentation normally provide analyses of what happens once an argumentative discussion has started" (Schär & Greco, 2018, p.1). This is true, but now what could be seen as missing is an analysis of what happens once a *subdiscussion* is opened. What happens after the confrontation stage where a sub-issue has emerged?

Furthermore, Schär's typology makes it clear that sub-issues, and consequently subdiscussions, emerge when something in an utterance is problematized by one of the participants of the discussion, but what this "something" problematized is remains unexplored.

2.3.4 Empirical contributions with examples of subdiscussions

This subsection examines certain contributions that do not focus on the phenomenon of subdiscussions, yet they happen to mention them during their investigation because they encounter one. This is relevant as it underscores that indeed subdiscussions are a recurrent phenomenon, and that they deserve further attention and study.

Lewiński (2010) encounters subdiscussions while exploring collective argumentative criticism in online political discussion forums. He illustrates the case of horizontal criticism, that is when "a group of arguers jointly objects to distinct elements of complex argumentation put forward by their opponent" (p. 86). So, there is a collection of individual participants to an online polylogue criticizing various aspects ("something" in Schär's terms) of the arguer's complex argumentation. According to Lewiński, "each of these individual criticisms opens a new subdiscussion" (p. 94), and later in the article he discusses concrete examples in the extracts observed. In the analysis, subdiscussions are identified but they are not examined as such, because the focus of the author's investigation was something else, i.e., illustrating two different patterns of collective argumentative criticism.

In a different context, Mohammed (2009) investigates institutionalized argumentative exchanges through the pragma-dialectical framework and integrating institutional insights. The author analyses an argumentative interaction in the context of Prime Minister's Question Time, and she identifies a subdiscussion related to the argument that is brought forward in the main discussion. Once again, the focus of the study was not the occurrence of subdiscussions, hence the analysis does not delve into that.

Still in the context of political argumentation, Wu (2019) examines a case in which subdiscussions are involved. The author deals with confrontational maneuvering (strategic maneuvering at the confrontation stage) in the spokespersons' during press conferences of China's Ministry of Foreign Affairs between 2015 and 2018. In particular, he focuses on the strategy of declaring a standpoint at issue as unallowed or indisputable

by the spokespersons, to avoid having to resolve the conflict of opinion. Wu observes that a subdiscussion is opened when the spokesperson advances arguments in defense for his/her sub-standpoint “This standpoint is indisputable”. Moreover, Wu claims that the “ultimate purpose of this subdiscussion is to provide argumentation that warrants the justificatory force of the rationale for the indisputable declaration in the main discussion. [...] By declaring the standpoint indisputable this critical discussion is brought prematurely to an end in the confrontation stage” (Wu, 2019, p. 493).

This contribution is interesting because it shows that subdiscussions could be used strategically. In the instance under examination, a subdiscussion putting into question whether a standpoint can be disputable or not, has the potential to interrupt a discussion. This observation is also noteworthy because it raises questions about the consequences of a subdiscussion on the unfolding of the interaction in which it had emerged: what do subdiscussions do to the interaction (see also subsection 2.5)?

In Labrie (2013), subdiscussions are mentioned in the domain of medical argumentation. Labrie finds that subdiscussions are a possible dialectical pathway when doctors strategically elicit concessions in treatment decision-making discussions with their patients. This work represents an empirical illustration of how dialectical profiles work (cf. van Eemeren, Houtlosser and Snoeck Henkemans, 2007, 2008).

Greco and De Cock (2021) explore the debate around fashion sustainability and the reasons for the complexity of the controversy. The authors advance that one problem consists in argumentative misalignments on the definition of sustainability among the participants of the polylogue. These misalignments become visible in the subdiscussions that activists open by targeting fashion brands’ communication in which the brands argue to be sustainable. These subdiscussions usually are not developed, and this subsequently leads to the impasse of the controversy.

Without claiming to have exhaustively covered all works acknowledging the occurrence of a subdiscussion, my aim was to highlight that subdiscussions are a fairly common phenomenon, but it does not appear to have been systematically studied yet. The next paragraph goes through additional works mentioning subdiscussions specifically within the context of children's argumentation.

2.3.5 Subdiscussions in children’s argumentation

The occurrence of subdiscussions has been acknowledged also in the domain of children’s argumentation (cf. Introduction, chapter 1).

A case of subdiscussion is found, for instance, in Arcidiacono, Pontecorvo and Greco (2009). In the article, the researchers aim to show that understanding the context is essential for the analytical reconstruction of argumentation. They examine a case study

taken from the setting of Italian family conversations and they identify a subdiscussion opened by a ten-year-old child who challenges the position of the father. This pattern of children discussing or putting into question parents' rules seems recurrent. This was one of Schär's emerging results, as it has been already mentioned in this dissertation (cf. Schär, 2018a, 2021). Her contributions collect many examples of young children opening sub-issues in informal everyday discussions with their parents. For example, Schär (2017) proposes the analysis of some instances of children's argumentation appealing to definitional loci with the objective to further support the fact that young children can be sophisticated arguers. In one situation, she observes that two five-year-old children spontaneously went over the issue proposed by the adult and started a subdiscussion on an issue that they raised themselves. Schär (2018b) investigates how issues are negotiated in discussions among children and their parents, when the discussants apparently do not share the same issue at the beginning of the interaction. In the case under examination, Schär finds that the child (4 years old) opens subdiscussions and defends the respective standpoints with several arguments.

The setting observed by Schär was that of family everyday argumentation, but one can easily imagine that children can challenge adults that are not necessarily their parents. Greco, Miserez-Caperos and Perret-Clermont (2015) examine an interaction where children are asked to identify a tricked dice, and a child unexpectedly puts into question the task itself, opening a subdiscussion about why one would trick a dice. The authors were interested in shedding light on the argumentative nature of children-adult interactions during tasks of knowledge co-construction, and they claim that children can open new unexpected argumentative discussions related to the main issue proposed by the adult. "Children might advance a point of view, propose arguments in its defense, and even identify sub-issues" (ibidem, p.12).

Children may also challenge their teachers. In Greco, Mehmeti and Perret-Clermont (2017), the researchers observed a case-study of adult-children interaction in a designed pedagogical activity from an argumentative point of view. In the analysis, they pointed out a student "resisting" his teacher's stereotype by raising a sub-issue about the possibility to answer the teacher's question or not (p. 206).

Though this last example does not concern a preschool child, what is interesting is that the teacher in that situation deviates from the student's issue and interrupts some lines of reasoning. This led the researchers of the contribution to raise reflections about the space that adults leave to children for the development of their contributions in argumentative interactions (cf. section 2.6).

2.3.6 Conclusive remarks about the concept of subdiscussion

This subsection attempts to draw some conclusions concerning the review of the concept of subdiscussion. First, we can define a subdiscussion 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. So

far, this “something” that can be problematized seems to concern the procedural or material starting points of an argumentative discussion.

Scholars appear to use different terms to refer to this phenomenon. Some arguably make distinctions depending on the discussion stage in which the embedded discussion occurs (whether it is in the opening stage or the argumentation stage – cf. Visser et al., 2011), or depending on the content of the embedded discussion (whether it is about the procedural or the material premises of the main ongoing discussion – cf. van Eemeren & Houtlosser, 2009). Since these terminological distinctions do not seem to be widely shared, I propose in this dissertation to simplify these differences and to use the term “subdiscussion” to identify a discussion emerging within an ongoing argumentative discussion, and to specify whether it is a subdiscussion on procedural or on material starting points.

Following the literature, the role of the subdiscussion is that of allowing the participants of a discussion to re-establish agreement over a proposition that is found not to be accepted by the discussants (van Eemeren & Grootendorst, 2004). Subdiscussions can also be used in a more strategic way, for example to repair fallacies (van Eemeren & Houtlosser, 2007) or to interrupt a discussion (by calling into question the “disputability” of a standpoint - Wu, 2019). Since these considerations about the role of subdiscussions are drawn from contexts where the discussants are adults and given our focus on children’s argumentation, it can be noteworthy to explore whether the same applies when it is children who open subdiscussions.

Moreover, the literature review revealed that subdiscussions can emerge from counterarguments (Rocci, 2021), but whether there are also other ways for a subdiscussion to emerge is not clear. More importantly, there seems to be little information about what happens to a subdiscussion after its emergence. According to van Eemeren and Grootendorst (2004), the subdiscussion should follow the same procedure and rules of the main discussion and, once the subdiscussion is resolved, the discussants can go back to the main discussion. In this sense, the subdiscussion seems to work as a parenthesis within the ongoing interaction. However, to the best of my knowledge, there are no systematic studies that have empirically investigated the dynamics between subdiscussion and main discussion. Additionally, as highlighted in some studies within the domain of children's argumentation (e.g., Greco et al., 2017), children's subdiscussions are sometimes interrupted by adults, which prompts questions regarding both the trajectory of the discussion, as well as the space for children's contributions in children-adult argumentative interactions.

2.4 Subdiscussion and inference

In the previous subsection, it was concluded that subdiscussions are embedded discussions that can concern the starting points (material or procedural) of an ongoing discussion. Following pragma-dialectics, starting points should be established during the opening stage of the ideal model of a critical discussion (van Eemeren & Grootendorst,

2004 – cf. subsection 2.1.1). However, most of the times, “prior agreements about the point of departure are the exception rather than the rule” (van Eemeren & Grootendorst, 1992: 150). In real-life conversation, this step usually remains implicit and the discussants rely on their own interpretation of the starting points they may share with the interlocutor. This means that starting points are mostly implicit in the argumentative interaction.

Rigotti and Greco developed a model to identify the implicit components of argumentation, called Argumentum Model of Topics (henceforth AMT – Rigotti & Greco Morasso, 2006, 2009, 2010; Rigotti and Greco, 2019). The interest was to investigate the role of inference in argumentation, meaning understanding how an argument supports a standpoint¹⁶. The AMT offers a fine-grained analysis of single argumentative moves. It allows to look at the inferential configuration of the arguments, in other words it allows the representation (also through a graph) of the reasoning structure offering the link between the standpoint and the argument(s).

In the AMT, the inference manifests itself through the intersection of two components. The first one is called *inferential-procedural component*, and it shows the reasoning process on which the argument is based. The inferential-procedural component consists of a syllogism that depends on a specific argumentative *locus*¹⁷, and it develops from a major premise (called *maxim*) of the type of an “if p then q” implication (p→q in logical form).

The second component, called *material-contextual component*, “anchors the argument in the interlocutors’ cultural and factual common ground” (Rigotti & Greco, 2019). This second syllogism is made of a premise of cultural or contextual nature (named *endoxon*), and of a factual statement or a piece of information retrievable from reality (*datum*). The *endoxon* complemented with the *datum* leads to a (*first*) *conclusion*, which corresponds with the *minor premise* of the procedural syllogism. The first conclusion/minor premise combined with the *maxim* leads to the *final conclusion* (that coincides with the standpoint of an argument).

Here an example presented and analyzed by Sara Greco¹⁸ is proposed to show how the model looks like. In the proposition “This butter is genuine. It is made from fresh Alpine milk”, we can distinguish a standpoint (this butter is genuine) and an argument (because it is made from fresh Alpine milk). The acceptability of the conclusion from the premise is ensured by a *locus* from material cause. The argument (it is made from fresh Alpine milk) justifies the genuineness of “this butter” by considering the material from which “this butter” is made, i.e., fresh Alpine milk. The *maxim* activated by this *locus* is “if the material cause is of good quality, then the product is also of good quality”. This abstract

¹⁶ Rigotti and Greco (2019), quoting Aristotle, define inference as “a discourse in which, certain things having been layed down, something other than these things necessarily results through them” (*Topica* 100a²⁵⁻²⁷, cited in Rigotti and Greco, 2019, p. 8).

¹⁷ The *locus* denotes the “ontological relation on which a certain argumentative reasoning is based” (Rigotti & Greco Morasso, 2010: 494). *Loci* can be seen as places, “sources from which arguments are taken” (ibidem). For a review of this concept, see Rigotti & Greco, 2019.

¹⁸ This example is taken from Greco (2017), who in turns refers to an invented text proposed by Rigotti (2006). The original text was in Italian, so the translation here proposed is mine.

rule, however, is not enough to produce the inference. It needs to be anchored to some aspect of reality, allowing to say that the material cause of this butter is genuine. This “first conclusion” can be retrieved by considering the factual information that fresh Alpine milk is the material cause of this butter (*datum*) and the belief that Fresh Alpine milk is a genuine material (*endoxon*).

Figure 2.3 below shows Sara Greco’s use of the AMT reconstruction of this example. The diagram, in its typical “Y” shape, allows to clearly observe the intersection of procedural and material component.

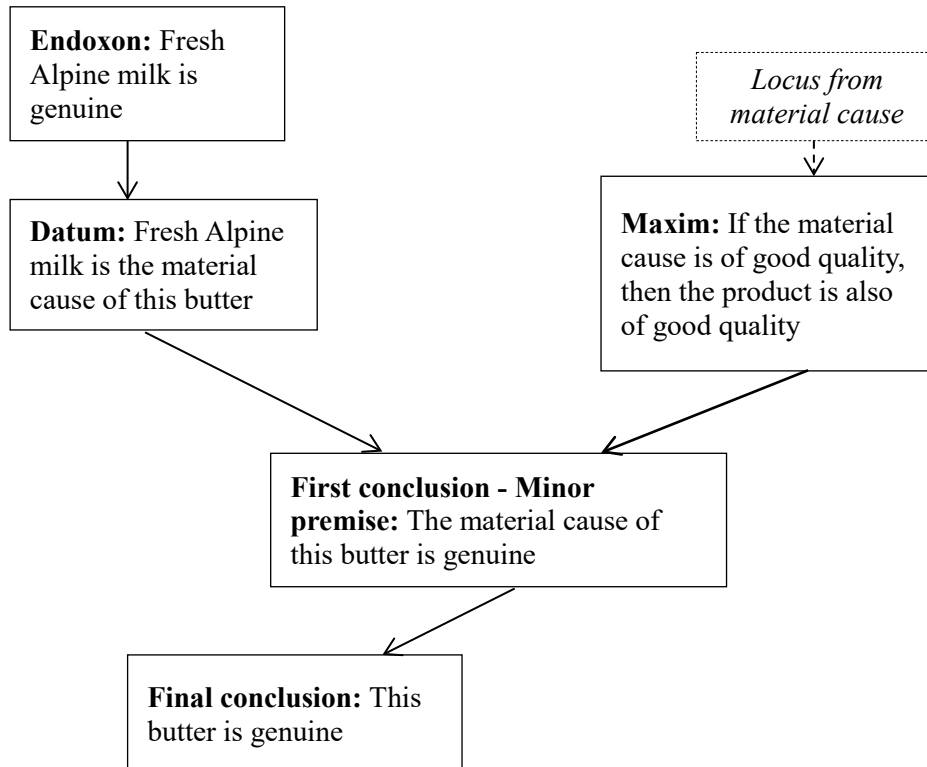


Figure 2.5: AMT reconstruction of “The butter” example (from Greco, 2017: 39, my translation)

It is relevant to underscore that the strength of this argument depends on whether the audience is aware of/believes in the quality of fresh Alpine milk, in other words it depends on whether the *endoxon* is shared. If this is not the case, it might happen that the interlocutor reacts to this argument by calling into question the *endoxon*, for example saying: “I don’t think Alpine milk is that genuine”. At this point, the parties might start a new argumentative discussion, hence a subdiscussion, about whether Alpine milk is genuine or not (*sub-issue*). Since the *endoxon* pertains to the material-contextual component of the argument, I would consider that this is an example of subdiscussion on a material-contextual starting point.

In my view, this example offers some hints regarding how the AMT can be a valuable model for the investigation on children's subdiscussions. In this dissertation, the AMT will be applied to reconstruct the inference of the arguments of a main discussion that are challenged by children, which gives information about what children try to "subdiscuss" (see chapter 3, section 3.4).

From a methodological point of view, the AMT is useful because it will allow us to reconstruct the implicit premises that can be called upon by children in subdiscussions. The helpfulness of the AMT for the study of children's argumentation has already been acknowledged. The ArgImp project, whose aim was precisely to reconstruct and study the implicit premises in children's argumentative reasoning, is an important reference (cf. Greco et al., 2018; Perret-Clermont et al., 2019; but also Convertini, 2019; Schär, 2018). From a theoretical point of view, the AMT is relevant to our work because it is a model that distinguishes between procedural premises and material premises - unlike, for example, Toulmin's model, as Rigotti & Greco (2019) make clear. In the review of the concept of subdiscussion (section 2.3), the importance of distinguishing between procedural and material starting points was underscored. It is important to make a clarification about the term "procedural" as it is used in pragma-dialectics and in the AMT. In pragma-dialectics, procedural starting points refer to the "shared norms of conduct", or in other words to "the implicit and explicit agreements on the manner in which the discussion is to be conducted, making up the procedural basis of the argumentative interaction" (van Eemeren, 2009, p. 18; and van Eemeren et al., 1993, p. 31 – cited in van Bijnen, 2020). In the AMT, when Rigotti and Greco speak of procedural starting point, they refer to "the semantic-ontological structure, which generates the inferential connection from which the logical form of the argument is derived" (Rigotti & Greco Morasso, 2010, p. 489). In fact, the procedural component in the AMT is also named "inferential-procedural". In this study of subdiscussion, attention will be paid to the meaning of the term *procedural*, specifying whether it refers to the AMT perspective or to the procedure of the dialogue as in pragma-dialectics.

2.5 Subdiscussion and argumentation design

In the conclusions drawn from the literature review of the concept of subdiscussion (subsection 2.3.6), it was highlighted that there is little information about what happens after the opening of a subdiscussion on the interaction where it occurs. This is a question that fits in the broader issue of the relationship between argumentation and interaction, namely how one shapes the other. To explore this, a further theoretical element seems to be helpful, that of argumentation design¹⁹.

¹⁹ In this dissertation I use the term "argumentation design" following a specific stream in communication studies (cf. Jackson, 2012, 2015; Aakhus, 2003, 2007 etc.). Hence, it should be not confused with the idea of argumentation design in the educational domain (cf. Schwarz & Baker, 2017), which has to do with the spatio-temporal organization of a pedagogical setting, in terms of choice of activity, choice of the type of teacher-student relationship, the "material" component of the setting (cf. Iannaccone, 2017), etc. In this

As Jackson (2015) puts it, “design thinking is an intellectual stance that cuts across disciplines” (p. 228), like architecture and software engineering, and it proves to be also valuable for the study of communication (Aakhus, 2007) and, more specifically, argumentation (Jackson, 2015; Jackson & Aakhus, 2014).

Discourse design can be seen as all those “efforts at management of talk” (Jackson, 1998: 184). In the words of Aakhus (2007), “communication design happens when there is an intervention into some ongoing activity through the invention of techniques, devices, and procedures that aim to redesign interactivity and thus shape the possibilities for communication” (p. 112). Hence, for example, procedures for the resolution of disagreement can be read as design hypotheses. A link here can be made with the contribution of pragma-dialectics (van Eemeren & Grootendorst, 1984; van Eemeren et al., 1993). The ideal model of the critical discussion and the code of conduct (cf. section 2.1.1) are then examples of design hypotheses, as already noted by Jackson (2015).

One focus of a design stance is the understanding of the process of how dialogue is constructed, shaped and conditioned in interaction. In fact, according to Aakhus (2007), one way to assume a design stance is to examine communication-design work. “Of particular interest is what people in a position to shape communication do to shape it and what knowledge and practices are cultivated in various professions and organizations” (Aakhus, 2007: 117).

As an example, Aakhus (2003) applies a design perspective for the investigation of mediators’ moves during an impasse in the context of divorce mediation. He studies the strategies that dispute mediators use to “craft disputants’ argumentation into a means for solving their conflict” (p. 265).

Greco (2018), similarly, starting from the figure of mediators as “architects of argumentative dialogue” (p. 11), reflects broadly on the role of third parties that intervene in the construction of spaces of dialogue.²⁰ In particular, she proposes the idea of “mediators with no label” (p. 12), referring to other “facilitators” that also play a role in the design of argumentative space for others (ibidem). An example of this category are teachers (cf. also Greco, Mehmeti & Perret-Clermont, 2017), who create activities to offer their students a space for discussing in order to think together.²¹

Following Jackson (2012), “the natural design of argumentation in conversation is expansion around disagreement. In the normal course of conversation, argument starts with the participants becoming aware that they have a disagreement that makes some sort

perspective of argumentation design, all these efforts of organization are conceived to foster students’ argumentation. As the present subsection illustrates, the idea of argumentation design adopted in this work is more related to the level of communication, it has to do with efforts in the construction and management of argumentative discourse.

²⁰ Regarding the idea of creating space for social interactions, Greco refers also to research in the domain of sociocultural psychology, such as Perret-Clermont (2015) and Grossen & Perret-Clermont (1992).

²¹ There are many works around this topic. The reader can refer as an example to the “Thinking together” programme (Dawes, Mercer & Wegerif, 2004) or to the “Philosophy for children” workshops (cf. Lipman, 1976).

of difference to one or the other of them. Instead of moving forward with the business at hand, the participants reorganize their efforts around *exploring* and repairing the disagreement” (p. 4, my emphasis). She continues: “(...) each new expansion simply exposes new disagreement space. *Any conversational move provides some set of opportunities for disagreement, including not only what is actually asserted but also any belief or commitment the speaker reveals without actually stating it*” (ibidem, my emphasis). Here a link can be made with the presuppositions that can be problematized and called into question through the subdiscussion.

A further noteworthy aspect to consider in a design perspective are the “unintended consequences of designed communication tools” (Lewiński & Mohammed, 2012: 3). Lewiński and Mohammed take this idea from Aakhus and Jackson (2005), who explain that “the consequences of design for practice are interactionally emergent” since “design occurs as an intervention to which human actors respond [...]” (Aakhus & Jackson, 2005: 429). It is fundamental to precise that when these authors speak of communication design practice, they refer to some sort of “space” (physical or virtual) and how communication is conditioned by this space and by its users. An online forum, for instance, is a platform offering its users a space for discussion on some topic, and it could be studied how communication is managed and organized in such a setting. The idea of “unintended consequences of designed communication tools”, hence, refers to the fact that within a pre-designed setting, participants develop their own interpretation of the setting and interact accordingly. This opens the possibility to the occurrence of unexpected phenomena within the designed practice. Let us take, for example, an application created by a company with the objective to facilitate work-related communication among its employees. The fact that the employees may at some point use the application to discuss about personal affairs or to organize an after-work party can be an instance of unintended consequence.

How does this relate to the phenomenon of subdiscussion? In this thesis, I attempt to take a specific, more local meaning of designed communication practice: I propose to see *children-adult argumentative interactions* as an instance of discussion space created and managed by the adult, who leads the interaction by introducing certain *issues*. In this perspective, *issues* condition then the discussion space, and children’s subdiscussions could be considered, at least to some extent, as unintended consequences, i.e., unexpected deviations from the course of the discussion that the adult has in mind.²² At the limit, the opening of a subdiscussion by a child within an argumentative interaction with an adult

²² Remember that subdiscussions occur when some aspect of an ongoing discussion is called into question and rediscussed. This might happen because the challenged aspect is not shared between the interlocutors, and the fact of not being shared is something that is realized in the moment when the subdiscussion emerges. This explains the potential unexpectedness of subdiscussions. The interlocutors are not always aware of what is shared and what is not.

might somehow show that the child's interpretation of the "discussion space" (i.e., the interaction) is different from that of the adult.

These reflections lead to wonder about what happens when a child disrupts the course of the interaction with the opening of a subdiscussion, and how this disruption is dealt with by the adult.

The following section shortly recapitulates why the phenomenon of subdiscussion is worthy of investigation and articulates the research questions that will be addressed in this thesis.

2.6 Problematization and Research Questions

As anticipated in the introduction of the dissertation (chapter 1), this work builds upon a previous project (ArgImp²³) aiming at understanding how 2-to-6-year-old children participate in argumentative discussions. An emerging result from this research was the identification of subdiscussions opened by children when putting into question their parents' starting points (Schär & Greco 2018; Schär, 2018a, 2021). A better understanding of this phenomenon can contribute to a more in-depth comprehension of the child's engagement in argumentation.

The concept of subdiscussion exists in argumentation studies; however, scholars seem to have been interested only in its potential emergence within an ongoing critical discussion. Little attention is paid to the unfolding and the trajectory of the subdiscussion in argumentative discourse. This dissertation intends to focus on the phenomenon of subdiscussion by looking at it as a whole process. To be more effective, I propose the image of the life cycle: a subdiscussion emerges, then it potentially develops and, finally, it should come to a conclusion. What can be discovered about each phase? My idea is that observing and understanding subdiscussions enables a better comprehension of the argumentative interactions in which they arise.

Considering the context of this dissertation is that of children's argumentation, the objective of this thesis will be *to understand what happens when a child opens a subdiscussion in an interaction with an adult*.

In order to explore this, the first research question can be formulated as follows:

RQ1: What is the "life cycle" of children's subdiscussions in children-adult argumentative interactions?

RQ1a: How do children's subdiscussions emerge?

RQ1b: How do children's subdiscussions develop?

²³ As a reminder, the research project referred here is "Analysing young children's implicit argumentation: reconstruction of procedural and material premises" (ArgImp), conducted thanks to the Swiss National Research Foundation (contract n. 100019-156690/1). Applicants: Anne-Nelly Perret-Clermont, Sara Greco, Antonio Iannaccone, Andrea Rocci. PhD students: Josephine Convertini, Rebecca Schär.

RQ1c: How do children's subdiscussions end?

The second research focus concerns subdiscussions and their consequence on the interaction in which they emerge. Taking inspiration from a communication design perspective (subsection 2.5), I proposed to see interactions between children and an adult as a space created and managed by the adult to discuss certain *issues*. Hence, I suggested that subdiscussions could be “unintended consequences” of the discussion space that the adult has organized. The fact that a child opens a subdiscussion can be seen as a sign that the child has interpreted the discussion in a different way than how the adult supposed. This leads to wonder how the adult responds to this unexpected argumentative move of the child, and whether these unintended consequences have space to develop and possibly impact the discussion space, i.e., the interaction, in which they emerged?

In a more direct way, the second research question that this work will address is:

RQ2: What is the consequence of children's subdiscussions on the course of the interaction in which they emerge?

By answering these questions, this work attempts to achieve two aims: on the one hand, to explore and expand the concept of subdiscussion in argumentation theory; on the other hand, to contribute to the understanding of children's participation in argumentative interactions.

3. Methodology

This chapter focuses on the empirical part of the dissertation. It illustrates the corpus that was created *ad hoc* for the investigation of the research questions that have emerged in the previous chapter. The chapter is articulated as follows: section 3.1 introduces the criteria for data collection, including some choices that became necessary in reason of the Covid-19 pandemic. Section 3.2 illustrates in detail the construction of the corpus of the dissertation. Then, section 3.3 explains the process of data transcription, and finally section 3.4 is dedicated to present the procedure of analysis of the data.

3.1 Criteria for data collection

From a methodological point of view, the data collection in this thesis combines quasi-ethnographic fieldwork (video recordings, observations, extensive field notes) with conversation analysis (CA) methods of transcription²⁴ (see section 3.3).

At the beginning of this research project (October 2019), the family setting was expected to be an adequate place where to find subdiscussions, since Schär & Greco (2018) and Schär (2018a, 2021) examined instances of subdiscussions between children and their parents. So, at first, I imagined the possibility of creating an *ad hoc* corpus of children-adult discussions during joint family activities, such as playing, cooking, and so on. However, this idea was abandoned because of the Covid-19 pandemic (which started in February 2020). In fact, given the government measures and the social limitations adopted at that time²⁵, visiting families was not conceivable, at least during the first two years of research.

²⁴ Conversation Analysis (CA) is a methodological approach in the field of the analysis of language and social interaction. It centers on a systematic examination of the structure and the organization of ordinary everyday spoken discourse (talk-in-interaction), with the aim to understand how people interact with each other and how language is used to accomplish certain communicative goals. People who work on spoken argumentation use transcription, which, following CA, is an important method that enables the observation of verbal, paraverbal, and non-verbal resources within an interaction.

²⁵ After the World Health Organization (WHO) declared the coronavirus (COVID-19) outbreak a global pandemic, on March 11, 2020, Switzerland (such as other countries in the world) introduced law restrictions to try to manage the infections emergency. For example, on March 13, 2020, the government closed schools and forbid gatherings of more than 100 people. Some days later, stores (except food stores and those selling basic necessities), restaurants, bars, and all recreational and leisure facilities were closed; severe controls were introduced at all borders; and the closing period for schools was extended. In May 2020, Switzerland, with the aim of avoiding a lockdown situation as it happened in other countries (such as Italy), reopened schools, restaurants, bars and stores with restrictions; introduced a limit of five people for private gatherings, and strong recommendation to wear masks when social distance could not be respected. As for universities, most activities were happening online. The infections dropped during summer 2020, but in August the contagion curve returned to an exponential trend. The so-called “second wave” of COVID-19 stroke in autumn 2020. The Swiss government re-introduced restrictions: bars and restaurants were obliged to close at 11 p.m.; universities had to hold most courses online only; events with more than 50 people and sports and cultural activities with more than 15 participants were banned, as well as gatherings of more than 10 people among family and friends in private spaces. During winter 2020-2021, Switzerland lived in a semi-lockdown. It was only with the arrival of vaccines, at the beginning of 2021, that the path towards

Hence, after obtaining the due permissions, I began to work with second-hand data and started consulting the data of existing corpora that included discussions between children and adults. Although this was primarily imposed by the pandemic, it resulted to be a good choice in terms of Open Data and FAIR principles (cf. Wilkinson et al., 2016).

Two of the existing corpora were collected in the framework of the ArgImp project²⁶ by the two former PhD candidates. One of them was created by Josephine Convertini and consisted of videos of children's conversations and their argumentative contributions at a kindergarten in Italy during collaborative tasks and problem-solving situations (cf. Convertini, 2019). The second one, collected by Rebecca Schär, comprised audio recordings of children-adult discussions in everyday family interactions in different Swiss Cantons (cf. Schär, 2018).

The third corpus I consulted was not part of the project hereabove, but was created by another researcher, Anda Fournel, in the context of her doctoral dissertation at the university of Grenoble Alpes. Her corpus contains video recordings of primary and middle school students' interventions during Philosophy for Children sessions (cf. Fournel, 2018).

The observation of these corpora ended up in an explorative analysis, which helped understand and refine the type of data and analysis needed to conduct this research and answer my research questions. One first reflection concerned the realization that all the three corpora contained instances of subdiscussions, which encouraged me in the relevance of investigating the phenomenon. A second consideration has to do with the helpfulness of video recordings, which more than only audio recordings allowed me to understand and reconstruct argumentative interactions. As an example, non-verbal components such as nodding, smiling, or other facial expressions and body movements can play an important role in a discussion, and I realized that it was crucial to take this into consideration for my study. Furthermore, I personally felt the necessity to conduct fieldwork to experience and learn about the context in which discussions take place, including the participants, their practices, rules, and values. Some research shows how contextual information might be helpful for the reconstruction and analysis of argumentation (cf. Arcidiacono et al., 2009; Muller Mirza et al., 2009; Perret-Clermont et al., 2019). Finally, I realized that the three corpora concerned argumentation in different age groups: Convertini and Schär dealt with children from 2 to 6, while Fournel observed

normalization could start. In spring 2021, a large vaccination campaign began, and the Covid Certificate was introduced. This document provided evidence that a person had a COVID-19 vaccination, tested negative, or recovered from the disease. This certificate became important because it allowed EU citizens (Swiss people too) to travel safely across countries and it was also necessary to access public events. The Covid Certificate Regulations started in summer 2021 and expired in summer 2023. At the time of the writing of this dissertation (end of 2023/beginning of 2024), COVID is no longer a global health emergency. The WHO declared the end of the emergency in May 2023.

The following online resources were used to reconstruct the chronological order of these facts: <https://www.rsi.ch/info/svizzera/Pandemia-cronistoria-delle-restrizioni--1783139.html>; <https://www.fondazioneveronesi.it/magazine/articoli/da-non-perdere/covid-19-la-pandemia-in-10-date-da-ricordare>.

²⁶ Cf. footnote 23.

primary and middle school students (from about 6 to 14 years old). I decided to keep the focus on preschooler children, as this was the original idea of this research project. However, the exploration of Fournel's corpus pointed me in the direction that subdiscussions were present also in educational contexts, where children-adult interactions are almost always organized and led by the adult.

During the spring of 2021 (at the end of the second year of research), with the arrival of COVID vaccines and the mitigation of social restrictions (see footnote 25), the creation of an *ad hoc* corpus for this project was rescheduled. At this point, I decided to contact a kindergarten and collect video recordings of discussions between children and their teachers during their everyday activities. The choice of changing setting, from the family to the kindergarten, was due to practical reasons: first, it was a way to meet many children at once; second, it seemed easier to contact kindergartens to propose to participate in the research than to contact and obtain the consent of multiple families during a time that was still delicate (for example, some people did not trust vaccines, the Covid certificate was created, etc.). Furthermore, thanks to the observation of the previous corpora, the kindergarten also resulted to be a fertile setting for the occurrence of subdiscussions.

So, I prepared a document to present the research rationale. Then, I contacted kindergartens in the cantons of Neuchâtel, Ticino, and in Italy, by means of emails, phone calls, word of mouth, and I shared the document with them. Eventually, a teacher from a kindergarten in Ticino showed interest in the project. After receiving the due consents (see subsection 3.1.1 for the ethical considerations of this research), I was introduced to the teacher's classroom, which was made of 14 children aged from 3 to 6, two educators and an "OPI" collaborator²⁷ (hereinafter referred to as OPI).

I moved from Neuchâtel to Ticino and visited the kindergarten four days a week²⁸, for about six weeks in January, February, March 2022.

The data collection produced a corpus counting around 30 hours of video recordings (see Table 3.2 in section 3.3).

Before illustrating the setting and the corpus of this dissertation in more detail, the next paragraph addresses the ethical issues that have been considered for this work.

3.1.1 Ethical considerations

This dissertation is a work that involved people, mostly children, and it involved accessing and recording a part of these people's lives. Hence, the ethical guidelines

²⁷ 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>).

²⁸ This choice was made in accordance with the teacher of the kindergarten. She explained that one day per week she brings the children to the gym room to make them run and do some physical activity, hence she discouraged video recording these moments because they were usually chaotic (children run, jump, scream...). I joined once this activity and realized that, with the equipment at my disposal, the quality of these video recordings risked being poor.

prescribed by the Swiss Psychological Society (SPS) and the *Fédération Suisse des Psychologues* (FSP) have been followed for the realization of the research project.

Concerning the work on second-hand data, the owners of the corpora were contacted to obtain the permission to access the data.²⁹

As for the creation of the *ad hoc* corpus, the participants involved were children, a teacher, two educators, one OPI, and, in rare occasions, the head of the kindergarten. The adult participants were asked for their informed consent to participate in the research (Appendix I). As for the children, the kindergarten shared with the parents an informative document (Appendix II), which I prepared with the help of the teacher of the kindergarten. The document illustrated the aims of the thesis, the conditions of participation to the research, and it asked the parents' informed consent; I also gave my availability to meet the parents and discuss any question and doubt about the project.

One week before the start of the study and the video recordings, I went to the kindergarten to meet the children and introduce myself. I told children that I was a student that needed to do some homework for my school: the homework was to look at how children discuss with each other and their teachers during the kindergarten activities. This was done first to start getting familiar with the children and the environment, but more importantly because I cared about explaining my presence (and the presence of cameras in the following weeks) to the children and checking whether some children felt uncomfortable and/or showed doubts about it. This was not the case. The children showed curiosity and asked some questions about the equipment (camera, voice recorders...), which were duly answered.

Moreover, in reason of the Covid-19 pandemic, I followed the regulations of the kindergarten, in particular, I respected the obligation of wearing FFP2 masks in the kindergarten. Towards the end of the fieldwork (in March 2022), the regulations became softer, and the obligation of the mask was abandoned.

Regarding the data produced, every evening after a day at the kindergarten, the audio and video recordings were transferred to a dedicated secure folder on the server of the University of Neuchâtel, which is accessible to the researcher.

Finally, all the collected data were transcribed and coded so to ensure anonymity, and they are used solely for research purposes (like the present doctoral thesis, other scientific research and events, teaching).

3.1.2 The role of the researcher

A further important consideration to make concerns my role and position as researcher on the fieldwork. In fact:

²⁹ For the corpora of Convertini and Schär, recollected within the Argimp project, the owners are Dr Convertini, Dr Schär and the professors in charge of the project. For the corpus of Schär, the approval of the ethical committee at USI was also necessary. As for the corpus of Fournel, the transcriptions of her data were already public, but she was contacted anyway, and she offered the opportunity to consult her video recordings after signing some confidentiality agreements.

Le chercheur en sciences sociales qui développe des recherches qualitatives, qui interagit avec l'Autre en pratiquant l'immersion, l'observation participante ou en réalisant des entretiens, devient « une partie prenante du monde social qu'il étudie et ne peut prétendre à une position de pure extériorité » (de Gaulejac & al., 2007: 14). (Daré & Venot, 2016: 5)

In other words, “the interaction of the researcher with the fieldwork has an impact on the fieldwork” (Brasseur, 2012: 107 my translation). Personally, this became very clear to me on the first day of video recordings at the kindergarten. As explained above, I had been already introduced to the children as a student with a homework to do for my school. I was sitting among the children during the discussion launched by the teacher, and, at a certain moment, a child asks me a question related to the ongoing discussion. Suddenly, I realized that I was not invisible, and that my presence, as well as my actions (such as smiling at a child) and my utterances would be part of the video recordings, hence of the transcripts, hence part of the research.

Once acknowledged that I was not a neutral observer, it was important to clarify the level of my engagement. The decision was to behave “normally”, so to participate to the kindergarten activities with the children. For example, during a discussion I would listen to the teacher's and the children's comments, I would smile, nod and so on according to what I would hear, I would intervene if I had a question or if something was not clear to me, I would answer questions if I was asked. In sum, my position was that of a young adult, without the authority of the teachers and educators³⁰, that was willing to play with the children and that was a potential interlocutor during the activities. Moreover, I was not the designer of the activities, and I never led an activity. It should be clarified that this type of participation was not problematic for the purpose of the dissertation. In fact, the objective was to study the phenomenon of children opening subdiscussions, challenging something in their interlocutor's utterances, and such researcher's behavior did not hinder subdiscussions from happening. On the contrary, it happened in the corpus that children opened subdiscussions also by calling into question something that was uttered by the researcher (see the “Pikachu” example, chapter 4, section 4.3.1.4).

Let us now turn to the corpus that was created, its content and the context of this content.

3.2 Description of the setting and corpus

As anticipated in section 3.1, the dissertation is based on a corpus of video (and audio) recordings of discussions between 3-6-year-old children and their teachers/educators during their kindergarten activities. The data are in Italian since the data collection took place in a kindergarten in Italian-speaking Switzerland.

In order to get the reader familiar with the corpus and to provide context information that could be useful to understand the episodes that will be illustrated in this dissertation (in

³⁰ At least, this was the attitude that I tried to show to the children: I would never take initiative and I would always tell the children to refer to the teacher or the educators when they came to me to ask for something.

chapter 4), the following subsection describes a typical kindergarten day and the environment of the kindergarten.

3.2.1 A typical day at the kindergarten (from the researcher's point of view)

Normally, I entered the kindergarten at 9 am. The school was already open, and until that time children were received and welcomed. When I arrived, I joined the children who were already there playing, either in the “big classroom” or in the “discussion room”.

The “big classroom” is a big space with different areas: at the center there are several tables and chairs that children mainly use to do some craft-work; then, there are corners dedicated to different activities, like the constructions corner, the toy cars corner, the painting corner, the books corner, the drawing laboratory, and the table soccer corner (see figure 3.1).

The “discussion room” is a room with benches and chairs disposed in a semicircle that looks towards a magnetic wall with posters on it. In front of the wall there is the teacher's chair. This is where roll call takes place and where most of the morning activities happen (see figure 3.2).



Figure 3.1: The big classroom of the kindergarten



Figure 3.2: The discussion room of the kindergarten

Resuming to the kindergarten day, from 9 to 9h30-9h45 it was the moment for free play. Then, the teacher put on a jingle song that the children recognized and that marked the end of the free play time. The children had to tidy up the space where they were being playing and to go to the discussion room. After that, the teacher put on another jingle song which she danced with the children. At the end of the song, the children sat on the chair with their symbol³¹ and the day officially started. It was usually at this time that I switched on the cameras and the voice recorders.

The first moment was the teacher taking attendance. She checked together with the children who was there and who was not. Later, the teacher asked the children for the calendar date: the children tried to guess the name of the weekday, the number, the month and sometimes the season in which they were. Then, the teacher announced the activity of the day. The activities could be of different type: interactive storytelling, structured games, discussions on a more or less defined topic (during the time I was there, the topics concerned animals, insects, and nature). The type of activities that form part of the corpus of this dissertation will be better illustrated in next subsection (cf. subsection 3.2.2 below).

The activity usually lasted about one hour and was interrupted by a break during which the children ate fruit. After the activity, the children could go back to free play either in the rooms inside the kindergarten or in the outside backyard. During this free moment, the teacher and I usually talked about the activity that had just took place and/or reflected together on the future ones (the teacher would share with me her plans). At midday the children moved to the canteen with the teacher and had lunch. Sometimes I joined the

³¹ Each child at the kindergarten was given a symbol (such as the sun, the moon, the butterfly and so on). Symbols were used on the chairs, benches, and on the children's belongings (like the towels, aprons) to help children recognize their things.

lunch, but no video recordings were made in order not to add a further type of activity. During the lunch break children sat in groups at a table (there were six tables in the canteen plus the table of the teacher and the table of the educator), and each table “talked” simultaneously (so, they were mostly child-child interactions); children sometimes shouted and/or cried, they could stand up and move. Potential video recordings of this moment were likely to be highly unintelligible.

After lunch, children went back to the big classroom, and they started playing again. During this free time, some children played with Lego®, some made drawings or puzzles, some others played with toy cars or at table soccer, and finally someone could ask me to read them a book.

At 2 pm the younger children (3-4 years old) were accompanied to the “sleeping room” and took their nap. Meanwhile, the older children (5-6 years old) kept playing until 2.30 pm, when the afternoon activity started. The afternoon activity took place in the big classroom (while the morning activity usually took place in the discussion room). The older children sat around a table with the teacher, and, at this time, I switched on the video cameras and the voice recorders. During the afternoon, the activities were prepared either by the teacher or by the OPI (cf. footnote 17 above). When the OPI was in charge of the activity, the activities were usually school-like activities, aimed at teaching children some technical concept. For example, during the time I visited the kindergarten, the activities dealt with learning the concept of symmetry, learning narrative sequences, and coding³². The afternoon activity lasted about 45 minutes. At 3-3.15 pm the younger children started waking up and, starting from 3.30 pm, parents could pick up their children. The children who stayed longer at the kindergarten had their snack time and then they kept playing until the arrival of their parents or guardians. I normally left the kindergarten around 4 pm.

3.2.2 Type of activities in the corpus

As it has already been said, the corpus of this dissertation consists of discussions between children and their teachers and educators during their activities at the kindergarten. However, the activities were of different kinds, which is important to remark and take into account for the analysis. In fact, according to the epistemological posture of this work, argumentation is a situated phenomenon that happens within a specific context (van Eemeren & Grootendorst, 2004; and Muller Mirza et al., 2009). Moreover, interlocutors interpret the context they are in and they interact in it according to their understanding of the context (cf. chapter 2, section 2.2). Hence, recognizing the types of activities in which

³² Lately, some school systems have introduced coding classes, with the aim to have children familiarize with computational thinking through game-like activities. In particular, children learn to use a set of instructions to communicate with computers to achieve a goal or perform a task. The specific activity I assisted at the kindergarten was giving instructions (“head straight”; “turn right”; “turn left”) to a bee who lost its way to the hive.

the participants of this research were involved is key to better interpret what is going on in the interaction where a subdiscussion occurs.

The teacher of the kindergarten shared with me a table with the program of activities she planned to do with the children during the period of my stay. In the file she mainly mentioned the content of the activity, the material needed and, in some cases, a few guide questions and the objectives³³ she aimed at through the activity. However, the teacher did not use a systematic terminology for distinguishing the type of activities; so, I created the following “labels” for the purpose of the analysis:

- > Organised discussions
- > Non-organised discussions
- > Pre-school activity
- > Book/film club
- > Organised play
- > Free play

The term ‘Organised discussions’ indicates those activities revolving around a discussion on a given topic, started by the teacher; usually, these activities were conceived by the teacher, who prepared some material for it, had some guiding lines for the discussion, and aimed at some objective.³⁴ The term ‘Non-organised discussions’ refers, instead, to those activities revolving around a discussion that is usually started by the teacher but without a fixed topic or a specific goal. The difference with the first type stands in the preparation of the activity and in the fact that the teacher did not have a clear agenda of the discussion she started.

The category ‘Pre-school activity’ includes those videos involving some sort of school-like activity, where the teacher usually had some didactic goal. In most cases these videos concerned the children aged from 5 to 6, who would start primary school in the following year. For example, several videos show children doing some activities with the objective of learning how symmetries work. Most of these activities were prepared by the teacher in collaboration with the OPI.

The category ‘Book/film club’ concerns those videos where the teacher read a story to the children in an interactive way (in one case the story was told by a CD-ROM), or the children watched a short documentary film on the teacher’s laptop.

³³ For the objectives to attain, the teacher referred to the Ticino’s mandatory schooling curriculum (<https://pianodistudio.edu.ti.ch/>)

³⁴ For the choice of the term, at first, I proposed the label “designed discussions” or “pre-designed discussions” instead of “pre-organised discussions”, but I wanted to refrain from conveying the impression that I was referring to the current trend in pedagogical research advocating for more explicit designs of pedagogical approaches. Subsequently, I considered the term “structured discussions”, but I did not want to open the debate about what structure is. I would like to stress that the teacher of the kindergarten was not trained for the conception and the realization of the activities. She organized the agenda of the activities with the idea of having children express and discuss their ideas, but she did not create a technical pedagogical device, at least explicitly.

Finally, there are videos showing play activities: in some cases, these were given specific rules by the teacher ('Organised play'); in other cases, the games had no adult-given rules and children could just play freely ('Free play').

For each activity it is possible to indicate whether it was more (+) or less (-) pre-organised, considering, for example, whether the teacher had prepared some material, specific instructions, and whether there were more or less specific objectives for the children to attain. This characterization of the activities is pertinent since it gives some hints about the adult's expectations in the dialogue, and this is relevant given the interest of this research for the consequences of subdiscussions on the course of the interaction in which they occur. This will be returned to later in the findings of the dissertation (chapter 4, section 4.2 and section 4.4).

Before shifting to the results of this research, we need first to illustrate the procedure with which the analysis of the data has been conducted, starting from the transcription of the video recordings.

3.3 Transcription

The second step after the data collection was the transcription of the video recordings. As pointed out in Filliettaz & Losa (2020):

[...] l'activité de transcription consiste à restituer sous une forme écrite un sous-ensemble d'informations attestées sur les supports audiovisuels utilisés. Cette démarche vise à rendre disponible à des fins d'analyse et de manière détaillée un ensemble de propriétés des interactions situées qui ont trait aussi bien aux contenus des propos échangés qu'aux dimensions non verbales ou paraverbales des activités observées. (Filliettaz & Losa, 2020: 45)

Hence, the activity of transcription can be considered as the first stage of data processing, since it consists in making visible, by writing, the elements that were present in the audio or video recording.

The video recordings were fully transcribed, in order to be sure not to lose any relevant information for the identification and analysis of subdiscussions. This means that I did not just transcribe the excerpts with subdiscussions, but the full interactions (cf. RQ2).

Among the different transcription conventions, this dissertation adopted the GAT 2 (Gesprächsanalytisches Transkriptionssystem) by Selting et al. (2011) because it allowed three levels of delicacy for transcripts: minimal, basic and fine transcript.³⁵

³⁵ I am indebted with Professor Sara Cigada (Università Cattolica del Sacro Cuore, Milan), who made herself available to discuss about the methods of transcription and introduced me to the GAT 2 system. Furthermore, I would like to thank three students of the University of Neuchâtel to whom I delegated the transcription of half of the audio recordings. For reasons of efficiency, I fully transcribed half of the video recordings of my corpus; for the other half, I reviewed the transcriptions of the audio recordings made by the students while I was simultaneously watching the videos. The three students signed a confidentiality agreement.

According to the needs for our analysis, the minimal transcript conventions (Figure 3.3) were followed for the transcription of videos in their entirety. This served for the phase of identification of subdiscussions. In fact, the minimal transcript “can be used, e.g., in determining which passages are to be notated in more detail” (Selting et al., 2011:7).

Convention / symbol	Meaning
[]	Overlap and simultaneous talk
[]	
(.)	micro pause, estimated, up to 0.2 sec. duration appr.
(-)	short estimated pause of appr. 0.2-0.5 sec. duration
(--)	intermediary estimated pause of appr. 0.5-0.8 sec. duration
(---)	longer estimated pause of appr. 0.8-1.0 sec. duration
(0.5) / (2.0)	measured pause of appr. 0.5 / 2.0 sec. duration
haha hehe hihi	Syllabic laughter
((laughs)) ((cries))	Description of laughter and crying
<< :-> so>	Smile voice
Hm, yes, no, yeah	Monosyllabic tokens
Hm_hm, ye_es, no_o	Bi-syllabic tokens
?hm?hm	With glottal closure, often negating
((coughs)) ((a chair falls)) ((raises hand))	non-verbal vocal actions, events, gestures
<<coughing> > <<raising hand> >	... with indication of scope
(xxx), (xxx xxx)	One or two unintelligible syllables
(may i)	Assumed wording
(may I say/let us say)	Possible alternatives
((unintelligible, appr. 3 sec))	unintelligible passage with indication of duration
((...))	Omission

Figure 3.3: Summary of the most important GAT 2 transcription conventions –Minimal transcript
(from Selting et al., 2011, p.37-38)

Then, the excerpts of subdiscussions were re-transcribed applying the basic transcript conventions (Figure 3.4). This second level adds to the first one some prosodic information (such as intonation phrases, focus accents, pitch movements), which allows to “avoid misinterpretation of the segments in their interactional context (in terms of semantic structure and pragmatic function)” (Selting et al., 2011: 18).

Convention / symbol	Meaning
=	fast, immediate continuation with a new turn or segment (latching)
:	lengthening, by about 0.2-0.5 sec.
::	lengthening, by about 0.5-0.8 sec.
:::	lengthening, by about 0.8-1.0 sec.
SYLlable	Focus accent
!SYL!lable	Extra focus accent
?	Rising to high final pitch movement of intonation phrases
,	Rising to mid final pitch movement of intonation phrases
-	Level final pitch movement of intonation phrases
;	Falling to mid pitch movement of intonation phrases
.	Falling to low pitch movement of intonation phrases
<<surprised>>	Interpretive comment with indication of scope

Figure 3.4: Summary of the most important GAT 2 transcription conventions – Basic transcript (from Selting et al., 2011, p. 38)

The transcriptions have been realized by means of two software applications: InqScribe and ELAN³⁶. They are both annotation tools for audio and video recordings. InqScribe offers a simple and user-friendly interface that allows for immediate transcriptions; while ELAN is more technical but allows much more precision in the transcription, in fact it is frequently used for multimodal analysis (see the pictures below).

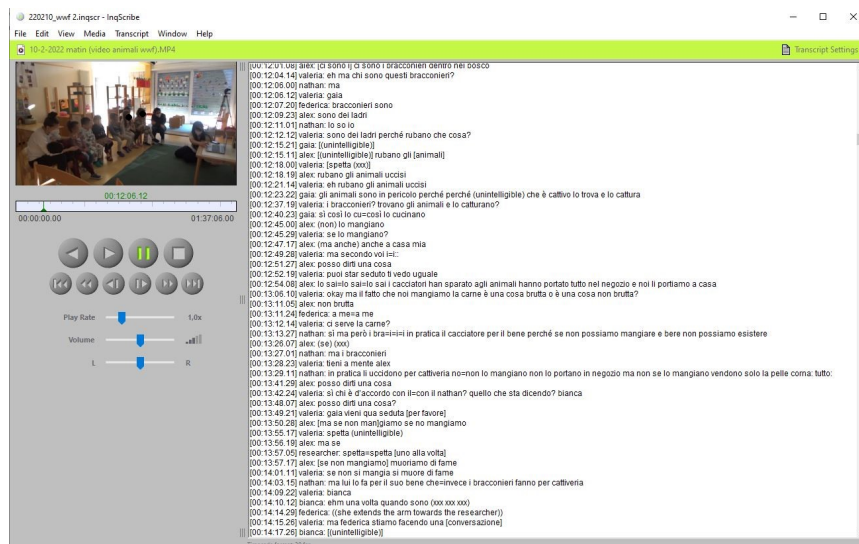


Figure 3.5: Sample of InqScribe's window from this corpus

³⁶ ELAN (Version 6.7) [Computer software]. (2023). Nijmegen: Max Planck Institute for Psycholinguistics, The Language Archive. Retrieved from <https://archive.mpi.nl/tla/elan>

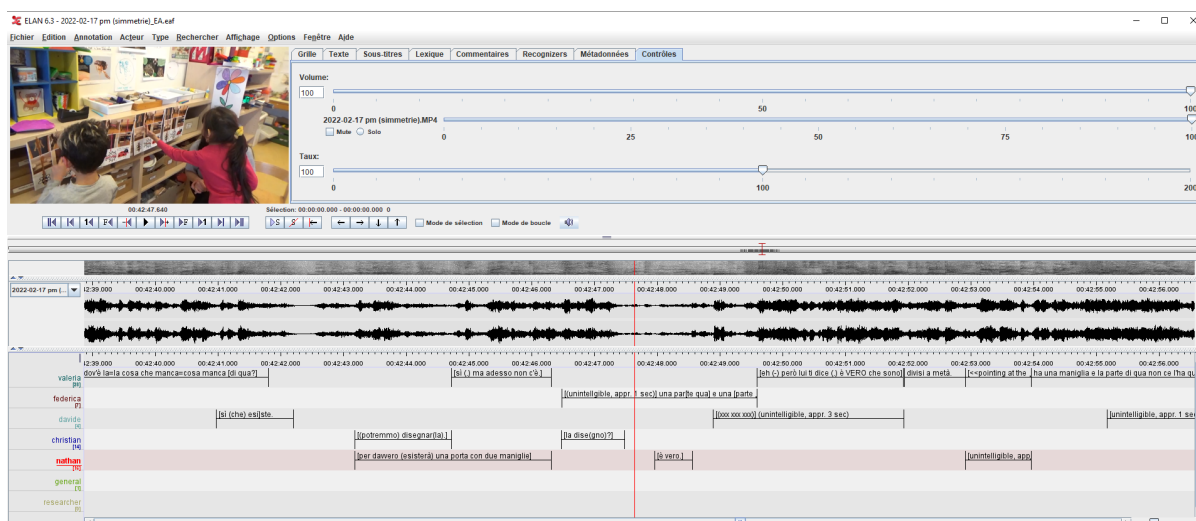


Figure 3.6: Sample of ELAN's window from this corpus

In this research, the first software was used for the transcription of the entire videos, and ELAN was used for the transcripts of specific subdiscussions.

After the transcription phase, the corpus took the form of thirty-eight MS Word files, counting around 232'000 words. The following table illustrates the corpus that was finally built. Each file was given a name related to the activity recorded in the video, and for each one it is indicated: the type of activity and whether it was more (+) or less (-) pre-organised; the participants; the length of the video; and the number of words of the transcript.

Name of the video and transcript	Type of activity	Participants	Length of video	Number of words
Grasshopper	Organised discussion (+)	children (3-6 yo); teacher; researcher	01:08:10	13'500
« The lawn mower » game	Organised play (+)	Children (3-6 yo); teacher; educator; researcher	00:15:08	3'158
Superheroes	Organised discussion (+)	Children (3-6 yo); teacher; educator; researcher	00:43:58	7'602
Symbolizing	Pre-school activity (+)	Children (5-6 yo); teacher; researcher	00:48:56	3'676
Superpowers Quiz	Organised discussion (+)	Children (3-4 yo); educator	00:26:32	2'470
Insects' superpowers	Organised discussion (+)	Children (5-6 yo); teacher; OPI; reearcher	00:41:16	3'436
Symmetries I	Pre-school activity (+)	Children (5-6 yo); OPI; researcher	00:30:51	3'900

Invent a story	Non-organised discussion (-)	Children (5-6 yo); teacher; researcher	00:38:31	3'588
Documentary on endangered animals	Video club (+)	Children (3-6 yo); teacher; researcher	01:46:26	14'826
The WWF	Organised discussion (+)	Children (5-6 yo); teacher; researcher	01:04:28	9'988
Teeth	Organised discussion (+)	Children (3-6 yo); teacher; educator; researcher	00:53:30	6'483
The Dor Beetle	Book club (+)	Children (3-6 yo); teacher; educator; OPI; researcher	01:08:47	9'171
The best animal	Organised discussion (+)	Children (3-6 yo); teacher; educator; researcher	01:04:15	8'007
Superpowers and symbols	Organised discussion (+)	Children (3-6 yo); teacher; educator; OPI; researcher	00:56:37	8'360
Documentary on insects	Video club (+)	Children (3-6 yo); teacher; educator; researcher	00:53:34	7'631
Symmetries II	Pre-school activity (+)	Children (5-6 yo); teacher; OPI; researcher	01:09:57	7'805
Lego	Organised play (+)	Children (3-6 yo); researcher	00:18:47	1'465
Table soccer I	Organised play (+)	Children (3-6 yo); researcher	00:35:54	3'484
Flowers	Non-organised discussion (-)	Children (5-6 yo); teacher; head of kindergarten; OPI; researcher;	00:09:16	1'453
Valentine's Day	Non-organised discussion (-)	Children (3-6 yo); teacher; researcher	00:54:18	8'146
Preparing animals stickers	Non-organised discussion (-)	Children (3-6 yo); teacher	00:54:10	3'946
Presentation of the stickers	Non-organised discussion (-)	Children (3-6 yo); teacher; educator; researcher	01:04:01	5'998
Stickers stands	Organised play (+)	Children (3-6 yo); teacher; researcher	01:06:59	8'267
Tina and Tony change school	Book club (+)	Children (3-6 yo); teacher; educator; OPI; researcher	00:40:26	5'210
Symmetries III	Pre-school activity (+)	Children (5-6 yo); teacher; OPI; researcher	01:07:58	9'737
Moral dilemma I	Organised discussion (+)	Children (5-6 yo); teacher; researcher	00:35:15	6'605
Moral dilemma II	Non-organised discussion (-)	Children (5-6 yo); teacher; researcher	00:46:00	7'866

The animal Vessel	Free play (-)	Children (5-6 yo); researcher	00:25:55	3'273
Giving directions	Pre-school activity (+)	Children (5-6 yo); teacher; OPI; researcher	00:42:20	4'761
« Animal sounds » game	Organised play (+)	Children (3-6 yo); teacher; educator; OPI; researcher	01:02:59	7'200
Gaia and the firestone	Book club (+)	Children (3-6 yo); teacher; OPI; educator; researcher	01:17:44	10'149
Gaia and the firestone (unhappy ending)	Organised discussion (+)	Children (5-6 yo); teacher; researcher	00:51:36	6'385
Introduction	Non-organised discussion (-)	Children (3-6 yo); teacher; educator; researcher	00:22:46	2'280
The desert island	Organised discussion (+)	Children (5-6 yo); teacher; researcher	00:35:36	5'931
Stories and sequences	Pre-school activity (+)	Children (3-4 yo); educator	00:37:46	4'339
The Frog Prince	Pre-school activity (+)	Children (5-6 yo); teacher; researcher	00:47:25	6'095
Table soccer II	Free play (-)	Children (3-4 yo)	00:20:19	1'096
Suitcase	Non-organised discussion (-)	Children (3-6 yo); teacher; educator; researcher	00:45:08	5'181

Total n. of words	232'468
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Figure 3.7: Overview of the corpus of the dissertation

3.4 Procedure of analysis

After the presentation of the corpus that was created for this research, this section illustrates the procedure of analysis with which this has been studied. The purpose of this research was to observe the phenomenon of subdiscussions in children-adult argumentative interactions, in particular what happens when a child opens a subdiscussion. Let us repeat schematically the research questions that were formulated at the end of Chapter 2 (section 2.6).

RQ1: What is the “life cycle” of children’s subdiscussions in children-adult argumentative interactions?

RQ1a: How do children’s subdiscussions emerge?

RQ1b: How do children’s subdiscussions develop?

RQ1c: How do children’s subdiscussions end?

RQ2: What is the consequence of children’s subdiscussions on the course of the interaction in which they emerge?

To address these questions, this work proposes an argumentative analysis of the corpus created *ad hoc*. The first step was the identification of subdiscussions in the corpus. To find subdiscussions, it was necessary first to recognize argumentative discussions. Then, the opening of a subdiscussion was highlighted when something in the ongoing argumentative discussion was called into question.

In order to display the dynamics of the argumentative interaction, each argumentative episode³⁷ with the emergence of a subdiscussion was reconstructed by means of an adapted version of the analytic overview of an argumentative discourse (van Eemeren & Grootendorst, 2004; van Eemeren, 2018; cf. also this dissertation, subsection 2.1.1). This allows to recapitulate the main elements of a critical discussion, such as the standpoints, the arguments and their structure, the parties of the discussion. In this adapted version, following the theoretical proposal introduced by Schär (2018a), the *issue* and the *sub-issue* are also made explicit, in order to clearly display what the discussion and the subdiscussion are about. Furthermore, an arrow is introduced to indicate how the subdiscussion emerges from the main discussion: the arrow points at the element of the main discussion that is criticized and put into question. In this way, the relation between the subdiscussion and the overarching discussion is more evident. Letters are used to identify issues and sub-issues, and numbers indicate standpoints and arguments. The parties are indicated preceded by an “a-” if they are adults, or by a “c-” if they are children. Finally, turns are also shown, in order to add an indication of the temporal unfolding of the interaction.

Let us show an example of this adapted analytic overview, taken from an example that will be discussed in the following chapter.

³⁷ Following the ArgImp project, this work considers an argumentative episode as “a continuous stretch of interaction, where an individual issue or a chain of related issues are discussed. Contiguous argumentative discussions about topically unrelated issues are treated as separate episodes. Non-contiguous discussions separated by non-argumentatively relevant talk are also treated as separate episodes” (Rocci et al., 2020, footnote 4, p. 9).

On the idea of “argumentative episode” it is noteworthy to mention also prof. Martin Luginbuhl and Daniel Müller-Feldmeth at the University of Basel, who are working on the definition of this concept, as it came out during the *Journée de Linguistique Suisse*, organized in Lausanne in November 2022, and during Argage 2024 in Fribourg (Switzerland).

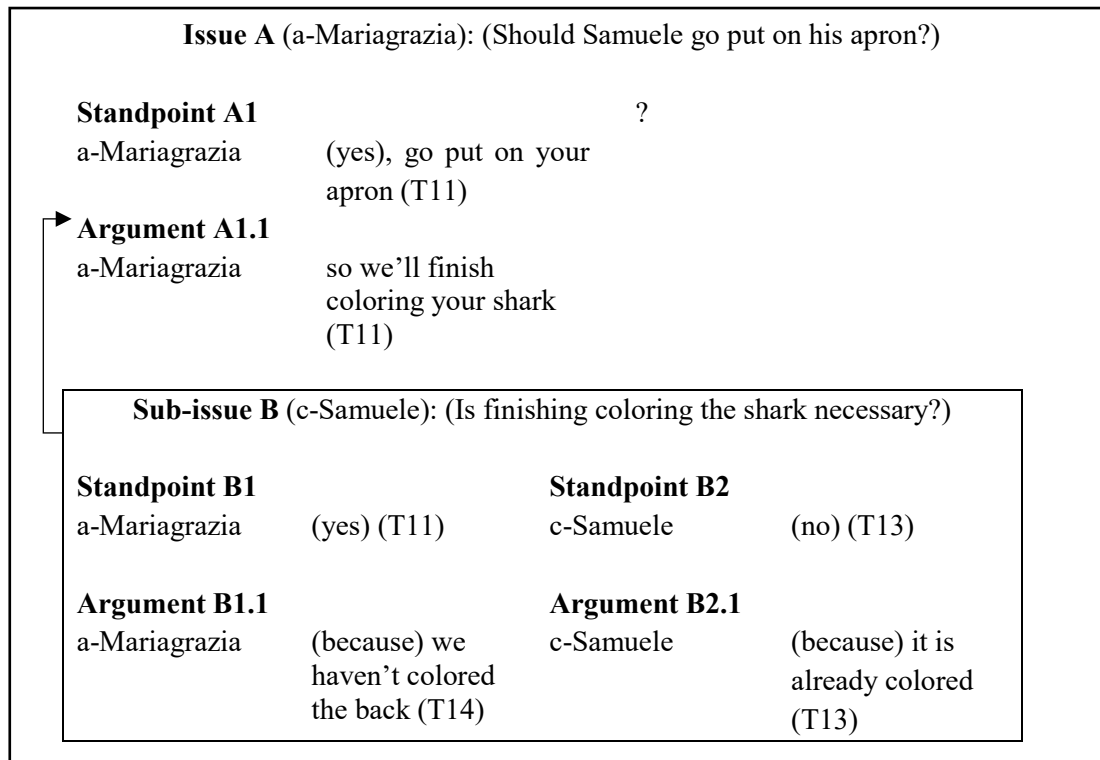


Figure 3.8: Example of analytic overview (taken from “The art apron”, Example IX – cf. chapter 4)

A further analytical tool that was adopted in the argumentative analysis is the Argumentum Model of Topics or AMT (Rigotti & Greco Morasso, 2010; Rigotti & Greco, 2019; see also section 2.1.3 in this dissertation). Following ArgImp (cf. Greco et al., 2018), the present research applies the AMT for the reconstruction of the implicit premises of the arguments advanced in the main discussions, which was needed to identify the target of the subdiscussion.

Let us take the example in the reconstruction above. The child’s subdiscussion concerning sub-issue B (Is finishing coloring the shark necessary?) is a criticism toward argument A1.1, advanced by the educator Mariagrazia. But what is the child’s criticism about? In order to uncover the specific aspect that is called into question by the child, it is necessary to identify the premises that are implicit in the adult’s argument by reconstructing the inference between Standpoint A1 and Argument A1.1. The following figure shows the AMT reconstruction of the argument that is challenged by the child.

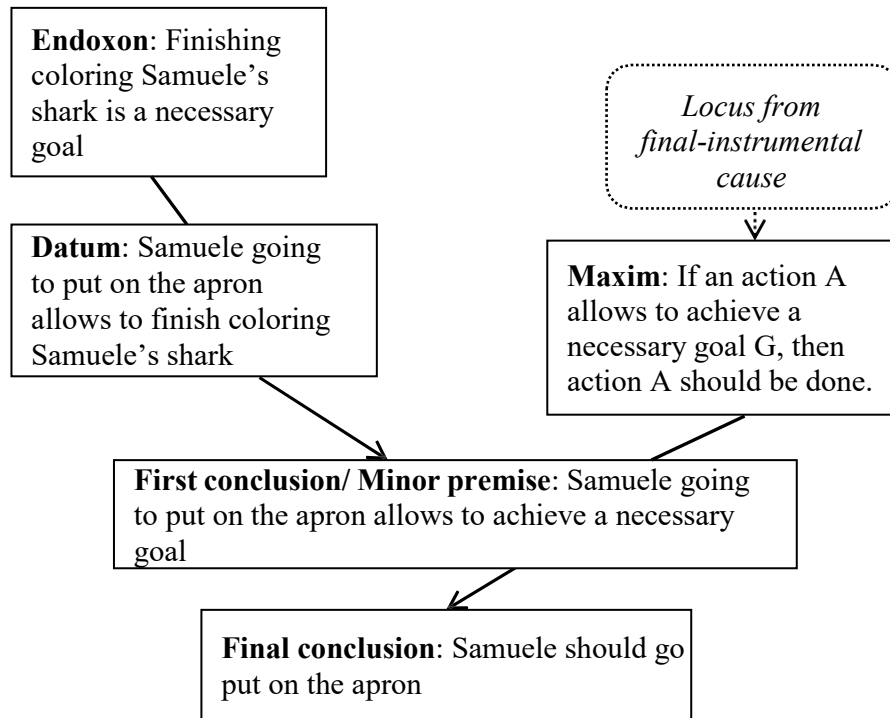


Figure 3.9: AMT reconstruction of argument A1.1

In this case, the reconstruction allows to highlight that it is the *endoxon* that the child is questioning through the opening of the subdiscussion (cf. sub-issue B in the analytic overview).

Illustrating the (readapted) analytic overview and the AMT was important here to make the reader familiar with the argumentative reconstructions that are made in this dissertation to examine the subdiscussions in the corpus. Following this, let us proceed with the presentation of the annotation scheme designed to address the research questions. Using Excel, I compiled a table with all the subdiscussions found in the corpus. Subsequently, I extracted the subdiscussions that were opened by children in an interaction where at least an adult is present. The dissertation examines “only” these cases, as the research questions specifically center around children-initiated subdiscussions and how the adult deals with this unexpected event³⁸.

To explore RQ1a (How do children’s subdiscussions emerge?), I first annotated who opened the subdiscussion and the type of the sub-issue emerged (using Schär’s typology of issues; see section 2.3.3 in this dissertation). The target of the subdiscussion (thanks to the AMT reconstruction) is also annotated, which allows to understand what is it that the children find problematic in adults’ utterances and what they try to rediscuss. Furthermore, I noted whether the subdiscussion emerged as a counterargument. Last but

³⁸ See also section 4.1, chapter 4 of this dissertation. This means that subdiscussions initiated by adults are not examined in this work.

not least, I also considered whether the subdiscussion was accompanied by a justification or not, i.e., whether the child advanced an argument to defend why he or she (implicitly or explicitly) raised the subdiscussion. These were the elements taken into account to study the question on how children's subdiscussions emerge.

Turning to RQ1b (How do children's subdiscussions develop?), I annotated first of all whether the subdiscussion opened by the child was uptaken, meaning if there was some reply to it, either by the adult and/or by other children. Then, it is noted by whom the subdiscussion is uptaken and how it is uptaken, meaning how the interlocutor reacts to the subdiscussion (for example, whether he or she enters the subdiscussion by taking the opposing sub-standpoint).

Finally, to investigate RQ1c (How do children's subdiscussions end?), I annotated whether the subdiscussion reached the concluding stage or an empirical counterpart of the concluding stage (van Eemeren, 2018). For the subdiscussions that had some sort of closing, it was observed whether the participants returned to the main overarching discussion, and how this latter ended. This was made to observe the impact of the occurrence of the subdiscussion in the short term, namely on the main argumentation in which it emerged.

As for RQ2, our intention was to investigate the consequence of children's subdiscussions on the course of the interaction, namely whether, in the long term, children's subdiscussions are somehow integrated in the continuation of the interaction, whether they can somehow shape the course of the interaction. To capture this, I observed in the full transcripts whether there were linguistic traces of the subdiscussion after its occurrence, namely I looked for phenomena such as word repetitions, paraphrasing, and rephrasing. If traces were found, I considered that the subdiscussion had been integrated in the interaction; otherwise, the subdiscussion was considered as a parenthesis functional to the resolution of the main discussion.

The procedure of analysis presented above is mainly an argumentative analysis from a linguistic point of view³⁹. However, as it was anticipated, insights from sociocultural developmental psychology (cf. section 2.2) will be also taken into account when it is needed for a more profound observation of the data. This procedure is constructed to be functional to the objectives of the present dissertation, which serves a dual purpose. On the one hand, it will allow to delve deeper into the concept of subdiscussion in argumentation theory. On the other hand, it will offer elements to see more clearly what

³⁹ I would like to clarify what is intended as "linguistic point of view" in this dissertation. Since this work studies argumentation as a social, rational, mainly *verbal* activity (cf. van Eemeren & Grootendorst, 1984), it employs linguistic approaches such as transcriptions following the tradition of Conversation Analysis, turn-taking, analysis of cohesion and coherence, semantic and pragmatic analysis. For example, the AMT (Rigotti & Greco, 2019) allows for the reconstruction of the implicit premises of argumentation, i.e., the presuppositions potentially challenged by children's subdiscussions. It should be noted that the linguistic analysis will not delve into other aspects, such as lexical, morpho-syntactic analysis, or analysis of linguistic variation. For example, the specificity of the language of the corpus, i.e., Swiss Italian as a variety of the Italian language, or child language variation will not be taken into account at least for this study.

happens when a child initiates a subdiscussion (that is the overarching question of this thesis), and potentially enhance our understanding of children's argumentative moves and initiatives.

4. Findings

This chapter develops the core of this research from a linguistic perspective.

Examples have been selected from the corpus under examination for their “demonstrative power” (Jacobs, 1986), and they are analyzed in order to illustrate the findings of the present doctoral research and to answer the research questions through an analytic inductive approach.

The objective of this thesis is to investigate the phenomenon of subdiscussion in the context of children-adult argumentation, in particular to examine what happens when a child opens a subdiscussion in an interaction where an adult interlocutor is present. The focus is on observing the whole life cycle of a subdiscussion and the potential consequence of the subdiscussion on the interaction in which it has emerged (cf. chapter 2, section 2.6).

The chapter is articulated as follows: the first two sections provide general remarks regarding the distribution of subdiscussions within the examined corpus (section 4.1) and the distribution of subdiscussions within the corpus in relation to the type of activity where they occurred (section 4.2). The following parts address the research questions advanced in this work. Specifically, section 4.3 delves into the “life cycle” of subdiscussions (RQ1), with subsection 4.3.1 analyzing the emergence (cf. RQ1a), subsection 4.3.2 the development (cf. RQ1b), and subsection 4.3.3 the conclusion (cf. RQ1c). Finally, section 4.4 investigates the consequences of subdiscussions on the course of the interaction in which they emerge (RQ2).

4.1 Overview of subdiscussions in the corpus

This section offers a general overview of the subdiscussions that have been identified in the corpus examined (see figure 4.1).

In the corpus, which counts about 232'000 words, 357 “argumentative episodes” (cf. chapter 3, footnote 37) were found. Among these episodes, 119 involved the emergence of subdiscussions. This means that, on average, about one out of three argumentative discussions gave rise to a subdiscussion⁴⁰.

⁴⁰ I would like to thank prof. Michael Baker for making me reflect on the proportion between argumentation and subdiscussions in my corpus. He raised this question during my presentation at the ISSA conference in Leiden in 2023.

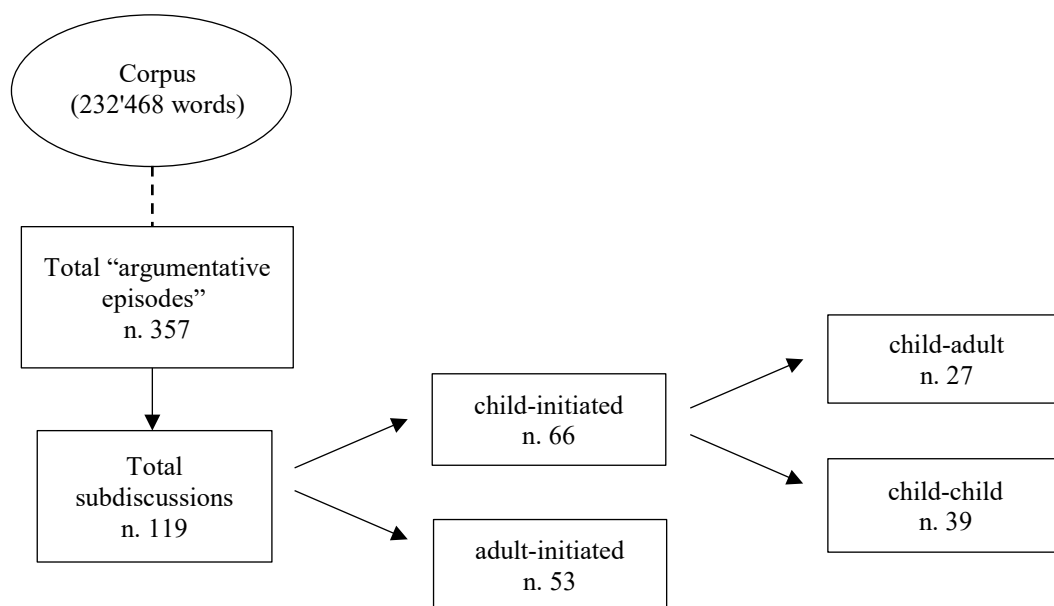


Figure 4.1: Overview of subdiscussions in the corpus

Furthermore, within the total of 119 subdiscussions, 66 were initiated by children, while 53 were opened by adults. Although these figures do not lend themselves to generalization or statistical analysis, they shed light on the fact that subdiscussions can happen quite frequently in children-adult argumentative interactions (cf. Perret-Clermont et al., 2019; Perret-Clermont et al., 2014).

Finally, among the child-initiated subdiscussions, 27 were opened when children put into question something in the utterance of an adult, and in 39 cases children called out something in the utterance of a peer.

This dissertation focuses on the analysis of subdiscussions initiated by children, both in child-adult interactions and in cases where children interact with peers under the supervision of at least an adult (the teacher, the OPI⁴¹, the educators or the researcher). Consequently, subdiscussions initiated by adults and those occurring solely among children without adult presence in the interaction are not within the scope of this study. This choice aligns with the research objectives outlined in Chapter 2 (cf. section 2.6). In fact, the formulation of the research questions underscores a particular interest in observing adult responses to the unexpected opening of the subdiscussion by children, and in examining the flexibility of the “discussion space” as planned by the adult, particularly when the interaction is interrupted by the child’s opening of a subdiscussion (cf. chapter 2, section 2.5).

Within the corpus, five subdiscussions were opened by children in peer interactions without the presence of an adult. This entails that the total number of children’s subdiscussions analyzed in this dissertation is 61.

⁴¹ The OPI (Operatore pedagogico per l’integrazione) is a specialized supporting teacher present in the educational system in Ticino (cf. footnote 27 in chapter 3).

4.2 Distribution of subdiscussions with respect to the type of the activity

After presenting the overview of the subdiscussions found in the corpus, this section examines their occurrence in relation to the type of activity in the analyzed videos.

In fact, at the beginning of the data analysis, when I had to identify the instances of subdiscussions, I noticed several videos with the occurrence of zero subdiscussions, and some videos featuring multiple instances of subdiscussions. The question of why this happened emerged spontaneously. The first intuition was to observe the type of activity in the videos and the distribution of subdiscussions with respect to the type of activity.

As explained in chapter 3, the video recordings captured kindergarten activities involving children, their teacher, the educators, and the researcher. These activities were of different kinds, and, for the purposes of the analysis, they have been called: ‘Organised discussions’, ‘Non-organised discussions’, ‘Pre-school activities’, ‘Book/Film club’, ‘Organised play’, and ‘Free play’ (cf. chapter 3, section 3.2.2). As a reminder, ‘Organised discussions’ indicate the activities centered around a discussion on a topic prepared by the teacher, while ‘Non-organised discussions’ involve discussions initiated by the teacher without a predetermined agenda. ‘Pre-school activities’ refers to the videos involving some sort of school-like activity, where the teacher usually has some didactic goal (e.g.: teaching symmetries). ‘Book/Film club’ sessions involve the teacher reading a book or the class watching a documentary film in an interactive way. ‘Organised play’ refers to play activities organized and controlled by the teacher; and, finally, ‘free play’ denotes moments where children play games without adult instructions.

Moreover, each category was categorized as more (+) or less (-) pre-organised (by the teachers), taking into account factors such as the presence of prepared materials, instructions, and the specificity of objectives set by the teacher for the children (see Chapter 3, Section 3.2.2).

In the following tables, the distribution of subdiscussions in the corpus with respect to these categories is presented: in particular, for each type of activity all the videos pertaining to that type are listed; and for each video it is indicated the code name, the number of words in the video, the total number of argumentative episodes and of subdiscussions that occurred, and then the distinction between the number of subdiscussions opened by children and those opened by adults.

Type of activity: Organised discussions (+)					
ID video	N. words	Arg. Episodes	Total subdi	Child-initiated	Adult-initiated
Moral dilemma (I)	6605	11	7	6	1
Grasshopper	13500	18	10	5	5
Superheroes	7602	6	3	2	1
Superpowers quiz	2470	4	1	1	0
Insects’ superpowers	3436	15	4	2	2

The WWF	9988	14	5	2	3
Teeth	6483	15	6	2	4
The best animal	8007	14	4	3	1
Superpowers and symbols	8360	6	1	0	1
Desert island	5931	36	24	15	9

Total	72382	139	65	38	27
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Table I: Distribution of subdiscussions in Organised discussions (+)

Type of activity: Non-organised discussions (-)					
ID video	N. words	Arg. episodes	Total subdi	Child-initiated	Adult-initiated
Invent a story	3588	3	0	0	0
Suitcase	5181	4	2	1	1
Flowers	1453	4	1	1	0
Valentine's Day	8146	3	2	1	1
Preparing animals stickers	3946	6	0	0	0
Presentation of stickers	5998	8	1	0	1
Moral dilemma (II) ⁴²	7866	12	3	2	1
Introduction	2280	5	0	0	0
Gaia and the firestone (unhappy ending)	6385	3	0	0	0

Total	44843	48	9	5	4
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Table II: Distribution of subdiscussions in Non-organised discussions (-)

⁴² This activity is the continuation of the activity "Moral dilemma I". In "Moral dilemma I" the teacher told the children a story about four friends (Tina, Tony, Luca, and Valentina), where one character (Tony) witnesses a friend (Luca) stealing the soft toy of another friend (Valentina). Tony asks his sister Tina for advice on what to do. The teacher then asks the children of the kindergarten what they would do if they were Tina. So, the instruction for the children is to discuss about what to do in a such a situation where they witness a friend stealing from another friend. Here it is clear that this activity is of the type 'Organised discussion'. In "Moral dilemma II", the teacher, during the afternoon, asked the group of older children to make drawings of the story they were told. Once the drawings were completed, the children were asked to explain and discuss their drawings. Inevitably, there are some references to the moral dilemma, but I chose to categorize this activity differently from Moral dilemma I, since the instructions of the teacher and the objectives of the activity are less explicit. The discussion in this case seemed to me more "spontaneous" than organized.

Type of activity: Pre-school activities (+)					
ID video	N. words	Arg. episodes	Total subdi	Child-initiated	Adult-initiated
Symbolizing	3676	10	2	0	2
Symmetries I	3900	10	4	4	0
Symmetries II	7805	7	3	1	2
Symmetries III	9737	19	9	5	4
Giving directions	4761	4	0	0	0
Stories and sequences I	4339	2	1	1	0
Stories and sequences II (The frog)	6095	16	5	3	2
Total	40313	68	24	14	10

Table III: Distribution of subdiscussions in Pre-school activities (+)

Type of activity: Book/Film Club (+)					
ID video	N. words	Arg. episodes	Total subdi	Child-initiated	Adult-initiated
The Dor beetle	9171	15	3	0	3
Documentary on endangered animals	14826	24	7	2	5
Documentary on insects	7631	5	1	0	1
Tina and Tony change school	5210	2	0	0	0
Gaia and the firestone	10149	16	5	2	3
Total	46987	62	16	4	12

Table IV: Distribution of subdiscussions in Book/Film club (+)

Type of activity: Organised play (+)					
ID video	N. words	Arg. episodes	Total subdi	Child-initiated	Adult-initiated
« The lawn mower » game	3158	1	0	0	0
Lego	1465	2	0	0	0
Table soccer I	3484	11	4	4	0
Stickers stands	8267	9	1	1	0

« Animal noises » game	7200	4	0	0	0
Total	23574	27	5	5	0

Table V: Distribution of subdiscussions in Organised Play (+)

Type of activity: Free play (-)					
ID video	N. words	Arg. episodes	Total subdi	Child-initiated	Adult-initiated
The animal vassel	3273	10	0	0	0
Table soccer II	1096	3	0	0	0
Total	4369	13	0	0	0

Table VI: Distribution of subdiscussions in Free Play (-)

What strikes at first in these tables is the difference in the distribution of subdiscussions between ‘Organised discussions (+)’ and ‘Non-organised discussions (-)’: if we observe the number of subdiscussions opened by children, which is the focus of this research, we read 38 for Organised discussions (+) and 5 for Non-organised discussions. The former type of activity always produced subdiscussions, and in many cases, we can count several of them; only in one video (out of ten) the only subdiscussion identified was not opened by a child. The other video counting only one subdiscussion (Superpower quiz) is the one with the least number of words. Still, this was the type of activity within the corpus featuring the most frequent emergence of children’s subdiscussions.

As for ‘Non-organised discussions (-)’, five videos out of nine count zero child-initiated subdiscussions; and the remaining four cases show very few subdiscussions. Of course, it should not be neglected the difference in the number of words between the activities that we are comparing (meaning the length of the interactions); however, if we calculate the average of the number of words for Organised and Non-organised discussions, we find about 7’000 words for the former and about 5’000 for the latter: a difference of about 2’000 words. Since in the Non-organised discussions there are videos that captured even more than 2’000 words and featured zero subdiscussions, and videos in the Organised discussions with the same number of words and five or more subdiscussions, I believe that the difference of words (i.e., the length of the interaction) is not enough to explain such difference in the emergence of subdiscussions, but there is something about how words were used in a specific activity. For this, the column reporting the number of argumentative exchanges happening in each video might be of help. In fact, the difference in the number of argumentative episodes between Organised discussions and Non-organised discussions is striking: in the former type of activity, a total of 139

argumentative exchanges occurred, where 65 comprised the emergence of a subdiscussion; in the latter type of activity, 48 argumentative exchanges occurred, where 9 included a subdiscussion.

Let us observe for a moment the other types of activities.

‘Pre-school activities’, that were activities where the teacher or the OPI had a precise agenda and objectives to attain, also triggered a certain number of subdiscussions (24 in total, 14 opened by children). There are two videos featuring zero child-initiated subdiscussions (despite the occurrence of several argumentative episodes): in one case (Symbolizing), I remarked that the three children participating in the activity were not very concentrated that afternoon⁴³, which is a factor that can hinder the facility of entering into argumentation (Muller Mirza et al., 2019; Convertini, 2021). In the second video (Giving directions), that registered zero subdiscussions at all, I noticed that the activity consisted in a game (although it was presented by the OPI with the objective to teach coding). The children were told that they had to help a bee return to its hive. They were shown a scotch-made board with some obstacles on it, and they had to use cards according to the command they wanted to give to the bee. The commands were “go straight”, “turn left”, “turn right”. The children interpreted the activity as a game (which sounds natural given this setting), and hence, differently from the other pre-school activities, this video provided less space for advancing and confronting ideas. This is relevant, because in the other pre-school videos, the children usually were asked to do a task (related to the concept they were supposed to work on, e.g., “divide the objects printed on this paper if you think they have symmetry”), and then the teacher and the OPI would open a moment of discussion on what the children did, how, why, what children thought about how the others did the task and so on.

As regards ‘Book/Film club (+)’, it can be observed that it was not the moment with the most frequent occurrence of subdiscussions opened by children. On the contrary, it is the only table where adult-initiated subdiscussions exceed children’s. During the activity, the children listened to the teacher reading a story, or they watched a short documentary on the teacher’s computer. In this situation, I noted that it was very likely that the teacher asked for the children’s opinion about the story or the film, and adults (the teacher, or the researcher, or the educators) put into question what the children had said (because the child’s position sounded unclear or bizarre). This could explain why there were more adult-initiated subdiscussions than children’s subdiscussions (16 vs 4). However, I was surprised to find little subdiscussions in such an activity that still was pre-organised by the teacher. Perhaps this is because “the story is the story”⁴⁴, so there is little room for interpretation or discussion about the narrative itself (at least if we stay at the comprehension level of the story).

⁴³ Even in the recording itself, the teacher at some point utters some sentences, such as “Hello, are you here?”, or “You are a bit distracted today, aren’t you?”, which point at some psychosocial obstacles hindering children’s argumentation (cf. Convertini, 2021).

⁴⁴ I would like to thank prof. Anne-Nelly Perret-Clermont for this suggestion.

As for ‘Free play (-)’ no subdiscussions were reported. In the videos some argumentative interactions occurred but the discussants never happened to raise sub-issues. It must be acknowledged that the corpus contained only two videos of this category, which is not a lot compared to the other activities. Finally, also ‘Organised play (+), where the children were proposed to play a game according to some rules given by the teacher, counts many videos with zero subdiscussions (three out of five). In the two videos where some subdiscussions were registered, I realized that the children had been explicitly required, in the rules of the game, to talk and convince each other (and in fact also the number of argumentative episodes occurring in these two videos is higher than the other ‘Organised play’ videos).

Although this research does not focus on quantitative aspects concerning subdiscussions, these tables were made to try to explore why I found videos very rich in subdiscussions and other videos with zero instances of subdiscussions. Given the relationship that this thesis tries to establish between subdiscussions and the pre-organisation of an interaction (cf. chapter 2, section 2.5), these tables were conceived to inform about whether certain types of activities somehow offered a more (or less) fertile ground for the emergence of subdiscussions.

The answer is more complicated than that. It is fundamental to take into consideration that there can be several factors that concur to explain the facility of occurrence of subdiscussions. It could be, for example, related to the number of children present in one activity or the other; it could be that the children found some topics “hotter” than others; or that on one day the children who most frequently challenged the teacher’s arguments were absent, or not engaged; it could be related to emotional aspects, and so on⁴⁵.

However, I advance the hypothesis that the pre-organisation of the activity, such as the instructions given by the teacher, the way in which the teacher builds the interaction (i.e., discussion space), also plays a crucial role in triggering children’s subdiscussions. It is fundamental to remember that a subdiscussion is opened when something within an already ongoing argumentative discussion is recalled into question. Within this corpus, I remarked that children’s subdiscussions emerged more easily when an adult (the teacher, or the researcher, or the educators) advanced arguments during the activity. Hence, for children to open a subdiscussion, the activity needs to present something to discuss about. This could partly explain why, for instance, the “Moral dilemma I”, “The grasshopper” and “The desert island” videos registered the highest number of subdiscussions in the whole corpus. These activities were Organised discussions, which the teacher prepared carefully, starting with the proposition of an *issue*, on which children were asked to advance a standpoint.

Hence, this dissertation acknowledges the importance of designing disagreement (Perret-Clermont, 1980; Jackson, 1998) for stimulating children opening subdiscussions.

Still, the aspect of the conditions stimulating or hindering the emergence of subdiscussions remains intricate, but there is much research focusing on the conditions

⁴⁵ For more reference on the possible psychosocial obstacles see Convertini (2021).

promoting argumentative exchanges, particularly within educational contexts (e.g., Schwarz, 2009; Asterhan & Schwarz, 2016; Schwarz & Baker, 2017; but also: Jackson, 1998; Golder, 1996). Within these works, the observation of subdiscussions might add a worthwhile perspective to understand, for example, how discussions are organized and managed by teachers, or whether teachers, as well as offering space for discussion also actively listen and follow children's contributions.

We will now shift our focus to the objectives of this dissertation, which primarily entail examining the phenomenon of children opening subdiscussions in children-adult argumentative interactions: what happens when a child opens a subdiscussion within a discussion where an adult is present? Next section explores this large question by investigating in our corpus the "life cycle" of children's subdiscussions (RQ1).

4.3 The "life cycle" of children's subdiscussions

This work proposes the observation of the subdiscussion as a process that has a beginning and an end. In chapter 2, section 2.6, I introduced the metaphor of the "life cycle" to refer to the possible journey that a subdiscussion can undertake: emergence, development and conclusion. This dissertation intends to observe what happens to a child-initiated subdiscussion taking into consideration each step of the journey. RQ1 is then articulated as follows: RQ1a) How do children's subdiscussions emerge? (section 4.3.1); RQ1b) How do children's subdiscussion develop? (section 4.3.2); RQ1c) How do children's subdiscussions end? (section 4.3.3).

4.3.1 The emergence of children's subdiscussions

In accordance with the annotation framework outlined in Chapter 3 (section 3.4), several aspects have been studied to describe how children's subdiscussions emerge. Initially, attention was directed towards how the sub-issue was introduced, drawing upon Schär's typology of issues arising in children-adult argumentation (Schär, 2021; see subsection 4.3.1.1). Subsequently, the potential targets of children's subdiscussions were identified and discussed (subsection 4.3.1.2). Subsection 4.3.1.3 investigates the relation between subdiscussions and counterarguments, and, lastly, subsection 4.3.1.4 examines whether the subdiscussions that are opened by children are accompanied by justifications.

4.3.1.1 Types of sub-issues

Rebecca Schär's research project aimed at studying how argumentative discussions between children and adults came into being (Schär, 2018a). One result of her work was the proposition of a typology of issues emerging in children-adult argumentation (cf. also the monograph Schär, 2021). As anticipated in chapter 2, section 2.3.3 of this dissertation,

Schär's work provides a basis to understand how sub-issues, and consequently subdiscussions, emerge. Hence, the subdiscussions identified in the corpus of the present dissertation were categorized according to her model.

In her classification (see Figure 4.8), Schär included two instances where subdiscussions emerge: the first instance (type 1B) is when a child problematizes something in an adult's utterance within an already ongoing discussion; the second (type 2B) is when an adult problematizes something in a child's utterance in an already ongoing discussion.

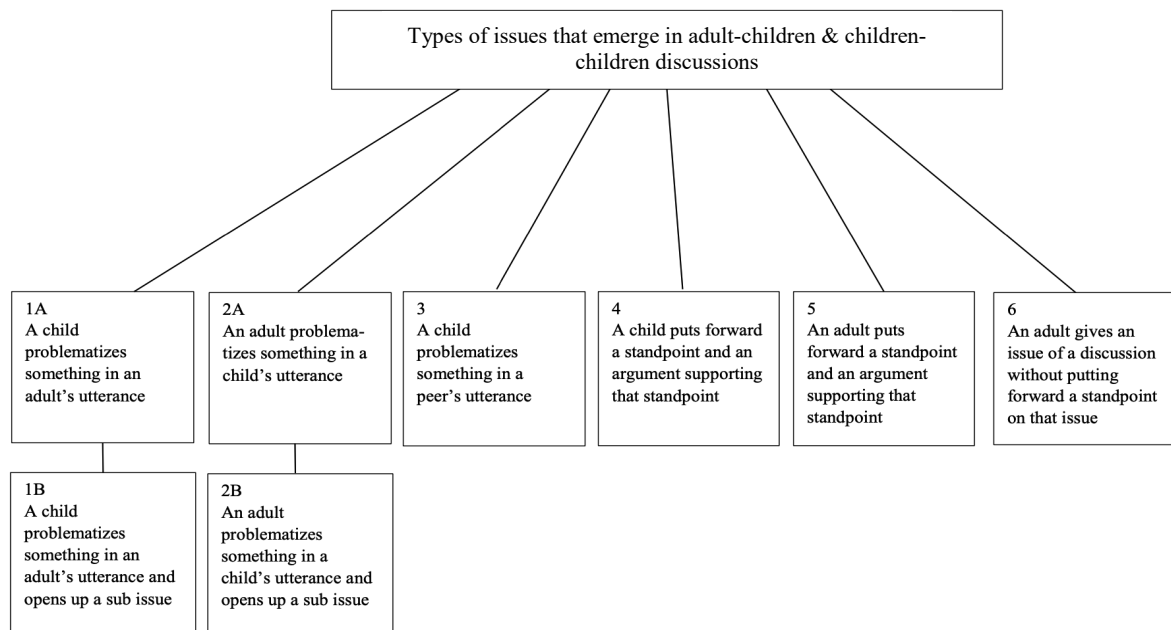


Figure 4.8: Typology of the emergence of issues in discussions with young children (Schär, 2018a: 141)

In the corpus of this dissertation, both cases 1B and 2B were found. Moreover, a third type has been identified, where a child problematizes something in a peer's utterance and opens a sub-issue. These cases have been annotated as "3B", in the continuation of Schär's model. Figure 4.9 proposes a second version of Schär's typology of issues with the integration of type 3B.

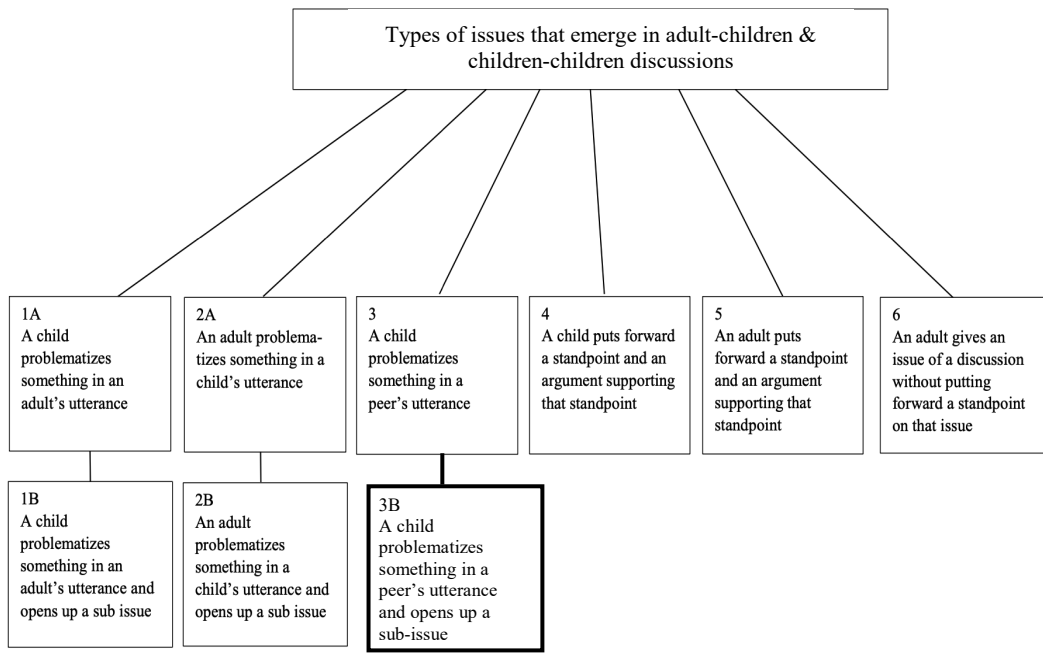


Figure 4.9: Schär’s typology of the emergence of issues in discussions with young children (extended)

Although Schär’s typology of issues gives an important hint about how a subdiscussion can emerge, it does not delve into what is the “something” that is problematized in the interlocutor’s utterance. This point is investigated in the next subsection.

4.3.1.2 The target of children’s subdiscussion

To explore what the child finds problematic in their interlocutor’s utterance, the Argumentum Model of Topics (AMT – Rigotti & Greco Morasso 2010; Rigotti & Greco, 2019; cf. also chapter 2.4 of this dissertation) was adopted to reconstruct the premises underlying the argument that the child challenges.

The following figure shows an overview of the type of target in the corpus examined.

• Material-contextual starting points	N. 43
Datum	N. 33
Endoxon	N. 10
• Inferential-procedural starting points	N. 1
• Issue	N. 17
Total of children-initiated subdiscussions:	N. 61

Figure 4.10: Overview of the target of subdiscussions in the corpus

In most cases found in the corpus, children criticize material-contextual starting points, in particular *data*. A possible hypothesis to explain this is that the *datum* is a piece of information that is usually explicit in the interlocutor's utterance, or it is easily retrievable in the context of the discussion. Hence, it is a piece of information that is usually more exposed and more immediate to challenge. To open a subdiscussion, for example, it is sufficient that a child says that the *datum* is not true, which becomes the sub-standpoint answering to a sub-issue of the type "Is the *datum* true?".

Although with a least frequency, children also happened to rediscuss their interlocutor's *endoxa*, i.e., the implicit principles, rules, values that the interlocutor thought to be valid and shared in the interaction.

As for inferential-procedural starting points, only one occurrence was found, at least in the corpus examined⁴⁶.

Finally, I identified several subdiscussions that challenged something 'other' than the starting points of an argument. This was because the subdiscussion did not emerge as counterargument, but it targeted something else in the ongoing argumentative discussion, namely the *issue*.

The following paragraphs present and discuss examples for each type of target.

4.3.1.2.1 Subdiscussions challenging *data*

Example I: "Poachers vs hunters"

This episode is taken from the "Valentine's Day" video. Some days before this activity, the teacher proposed a discussion concerning WWF and endangered animals. During the discussion the children learnt that one danger is represented by poachers who kill animals to sell parts of their body. The children concluded in that discussion that they wanted to help animals by collecting money for the WWF. In the present episode, the teacher informs the children that they will prepare a message for the parents of the kindergarten to explain this initiative. The participants of the excerpt are Valeria (the teacher), Nathan (6:4 yo), Davide (6:6 yo), Federica (5:8 yo), Lucas (4:1 yo), and Zoe (4:1 yo). The transcript starts with the teacher getting distracted because a poster falls from the wall in the discussion room, and she tries to stick it back on the wall.

Some children meanwhile start the following discussion.

⁴⁶ In the second-hand corpora navigated during the exploratory analysis, I identified one subdiscussion opened by a child that targeted procedural premises of an already ongoing argumentative interaction – 'procedural' in the pragma-dialectical sense, hence premises related to the format and procedure of the unfolding of the discussion. As it has been clarified in the "Criteria for data collection" (section 3.1), the present dissertation concentrates on the analysis of the corpus created *ad hoc*; hence, this procedural subdiscussion is not examined here. Yet, I wanted to mention this instance to underline the possibility of the occurrence of procedural subdiscussions in children's argumentation. The example appears in Gfeller et al. (2021), pages 188-190, although it is examined with a different focus than the subdiscussion. I proposed (in collaboration with Josephine Convertini and Antonio Iannaccone) an analysis of this excerpt from the point of view of the subdiscussion at the ARGAGE Conference in Neuchâtel in 2021.

Transcript:

{starts at 00:34:16.809}

1 ((a poster has fallen from the wall, the teacher, Lucas and
Zoe go pick up the poster))
2 NAT: io (.) metto (-) [io metto in punizione]
I put... I punish
3 VAL: [[<<to Lucas and Zoe> unintelligible, appr.
2 sec>]
4 NAT: i BRACconieri (.) li METto in <<clapping hands once>>
PUni>ZIOne.=
poachers I'll punish them.
5 DAV: =e IO [(unintelligible, appr. 2 sec)]
and I
6 FED: [no prima tu metterai] i bracconieri (unintelligible)
una bomba [(così sarà tutto xxx xxx)]
no, before you'll put poachers (unintelligible) a bomb so it will be all (...)
7 DAV: [io metto in punzio]ne (-) i cacciatori.
I'll punish hunters.
8 (0.79)
9 NAT: no i cacciatori sono bravi.
no, hunters are good people.
10 (0.28)
11 DAV: no.
no.
12 (0.09)
13 NAT: sì.
yes.
14 (1.35)
15 DAV: gli animali (.) (cacciatori uccidono animali)
animals, hunters kill animals
16 NAT: no ma peRÒ per (.) perché se NO non (nutriamo) senza cibo
no but but for because otherwise we don't feed without food.
17 (0.15)
18 i bracconieri lo fanno per cattiveria.
poachers do it because of wickedness.
19 (0.31)
20 VAL: <<to lucas> e::: (unintelligible, appr. 1 sec)>
and (...)
21 DAV: la cattiveria non è quel[lo].
wickedness is not that.
22 VAL: [quin]di domani bimbi ci occupiamo
so tomorrow children we will deal
23 (0.41)
24 dei nostri [ami]ci animali.
with our animal friends.
25 NAT: [ma:,]
but
26 (0.04)
27 VAL: sto:p.
stop.

{ends at 00:34:52.430}

In this excerpt that lasts only about forty seconds, while the teacher is distracted with the poster, two children engage in an argumentative discussion. Through the “adapted version” of the analytic overview of an argumentative discourse (presented in Chapter 3, subsection 3.4; cf. also Schär, 2018a, 2021), it is possible to reconstruct the discussions as follows:

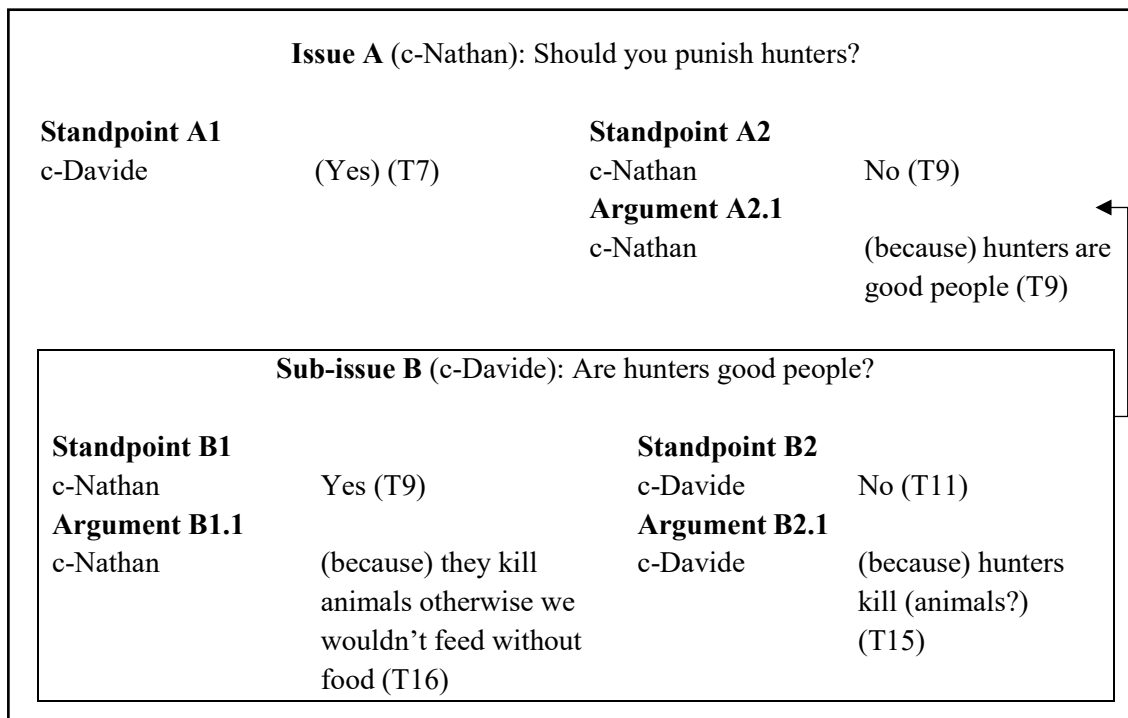


Figure 4.11: Analytic overview of “Poachers vs hunters”

Davide, at turn 7, claims that he will punish hunters. This utterance obtains the status of standpoint when Nathan, at turn 9, opposes to it, thus opening a discussion about whether it is right to punish hunters (issue A). Nathan also advances an argument (A2.1) in support of his standpoint: he says that “hunters are good people” (turn 9), that is why he does not find right to punish hunters. At turn 11, Davide refuses Nathan’s viewpoint. After a yes/no discussion, Davide advances that hunters kill animals (turn 15)⁴⁷, which is a counterargument supporting the implicit sub-standpoint “hunters are not good people” (standpoint B2). Davide, thus, has opened a sub-issue by calling into question Nathan’s argument (as the arrow in the analytic overview shows).

⁴⁷ The discussion between the two children overlaps with other voices and noises. Therefore, it has been difficult to understand Davide’s utterance. Thanks to the software Adobe Audition, it has been possible to capture the words “cacciatori uccidono” (hunters kill) and we suppose that the child meant that they kill animals. Anyway, even if we did not consider what hunters kill (in the child’s utterance), the fact of killing can be a reason for identifying someone as not good.

In order to determine what the child is specifically undermining in that argumentative move, the AMT can be applied to reconstruct the inference between standpoint A2 and argument A2.1.

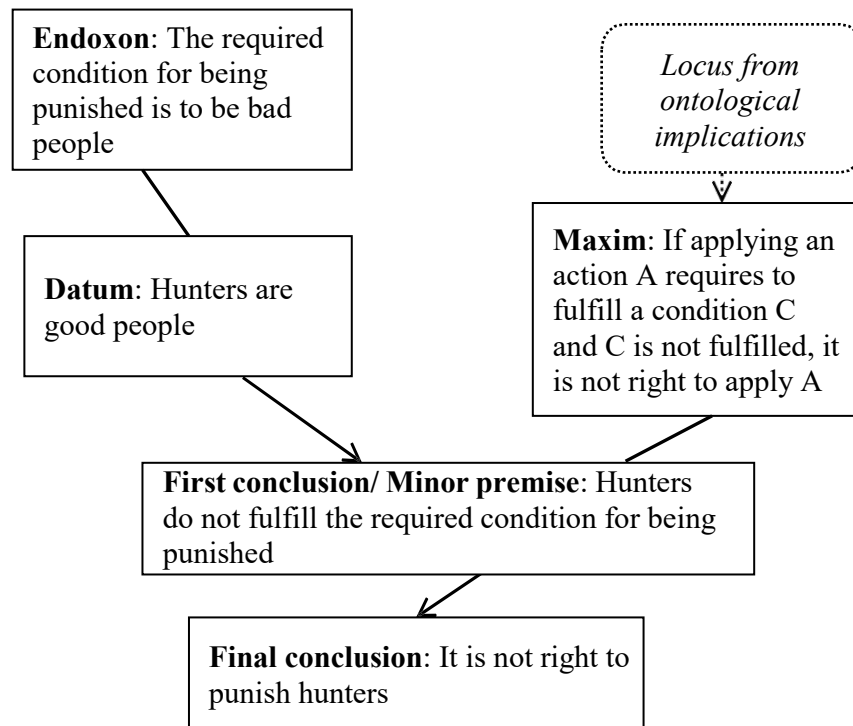


Figure 4.12: AMT of the argument challenged in “Poachers vs hunters”

As it becomes evident, the precise target of the child’s subdiscussion, as it can be seen in the AMT reconstruction (figure 4.12), is the *datum*: it is clear that the child’s criticism concerns whether hunters are good people, considering that they kill animals (Davide’s counterargument – argument B2.1). Nathan seems to accept the criticism and the two children enter a subdiscussion where they rediscuss who can be defined as good people. Nathan in the subdiscussion keeps standing for his opinion, that hunters are good people, and he tries to defend his standpoint by saying that the killings hunters do are somehow necessary (“we wouldn’t feed without food”, turn 20)⁴⁸.

Unfortunately, the children’s discussion is interrupted by the teacher, who, as the transcript shows, was distracted and does not seem to have followed the interaction. Although this subdiscussion does not have a clear conclusion, the focus of the example was showing how children’s subdiscussions can target the *data* in their interlocutor’s argumentation. Further examples of this type of target of children’s subdiscussions will be highlighted in other examples presented in the continuation of the chapter.

⁴⁸ It seems that, in the child’s view, hunters are those providing people with meat. In fact, this is what Nathan says in another activity (“The WWF”) that took place before the “Valentine’s Day” activity.

4.3.1.2.2 Subdiscussions challenging *endoxa*

Example II: “The teacher who eats children”

This episode occurs at the very beginning of the activity "The desert island." The participants involved in the excerpt are Valeria (teacher), Nathan (6:4 yo), Davide (6:6 yo). The teacher has just announced the activity, but one child asked to go to the toilets before starting. The teacher gave the permission and while waiting for her, she tells the other children (with an ironic tone) that she would eat the next child that interrupts the activity.

Transcript:

{starts at 00:00:00.000}

- 1 DAV: arriva l'ambulanza (.) e poi arriva anche la polizia.
The ambulance arrives, and then also the police arrive
- 2 VAL: oh:: che cosa fa la polizia?
Uh, and what will the police do?
- 3 NAT: eh [ti arresta.]
They'll arrest you
- 4 DAV: [TI ARRESTA.]
They'll arrest you
- 5 VAL: perché?
Why?
- 6 NAT: perché hai mangiato un bimbo.
Because you ate a child
- 7 VAL: va be (.) io gli dico che era noioso,
Nevermind, I'll tell them that he was annoying
- 8 (1.34)
- 9 NAT: ma CHE vuol dire? (xxx SCHifo) mangiare il sangue:
But what does it mean? Eating blood sucks
- 10 VAL: che schifo (.) fa un po schifo=
It sucks, it is a bit disgusting
- 11 DAV: =ti arrestano lo stesso
They'll arrest you anyway
- 12 VAL: mi arrestan lo stesso anche se dico che era noioso?
They'll arrest me anyway even if I tell them that he was annoying?
- 13 DAV: sì perché (.) basta mettersi in castigo e basta bastava
solo.
Yes because grounding them is enough it was just enough
- 14 (1.79)
- 15 VAL: ah beh (xxx)=ho sbagliato dov=dovrei averla messa in castigo
(...)
Ah well, I did a mistake, I should have grounded her

{ends at 00:00:27.333}

This interaction can be reconstructed from an argumentative point of view as follows:

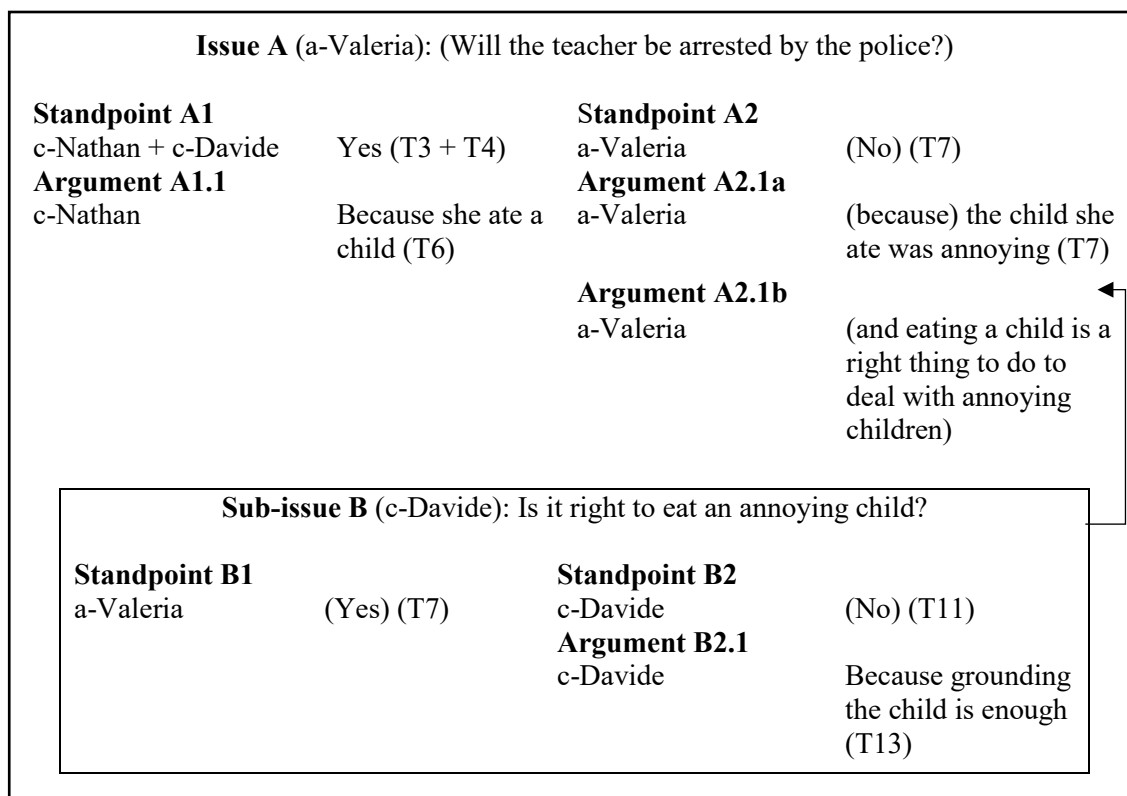


Figure 4.13: Analytic overview of “The teacher who eats children”

In this exchange, at turn 3 and 4, two children advance the proposition that the teacher will be arrested by the police. Valeria asks them to explain the reason for their proposition (turn 5), which can be interpreted as the manifestation of a difference of opinion, hence the start of an argumentative discussion around the issue “Will the police arrest the teacher?”. The argument given by Nathan (“because you ate a child”, turn 6) presupposes the implicit premise that eating a child is something that one should not do (after all, it is a crime). However, the teacher (playfully) reacts as she was not convinced, in fact she replies “nevermind” (original: “va be”), and furthermore she advances a reason to support her opposing standpoint, that she won’t be arrested. Her argument is that the child she ate was annoying (turn 7), which presupposes that eating a child is a right thing to do when a child is being annoying; hence, she won’t be arrested. Nathan is not satisfied with the teacher’s idea, and he shifts the topic by claiming that eating blood is disgusting. The teacher agrees with this side topic, however the discussion about whether she will be arrested is not resolved. This is until Davide returns to Valeria’s argument and criticizes it by saying that she will be arrested even if the child that she ate was annoying (turn 11), because grounding him would have been enough (turn 13). If we reconstruct the teacher’s argument (argument A2.1) through the AMT, it can be noticed that Davide’s

subdiscussion is precisely challenging the *endoxon* (see figure 4.8). Davide, in fact, is not calling into question the fact that the teacher ate a child that was annoying (i.e., the *datum*), but a specific part of the teacher’s implicit starting point: that eating an annoying child is somehow justified.

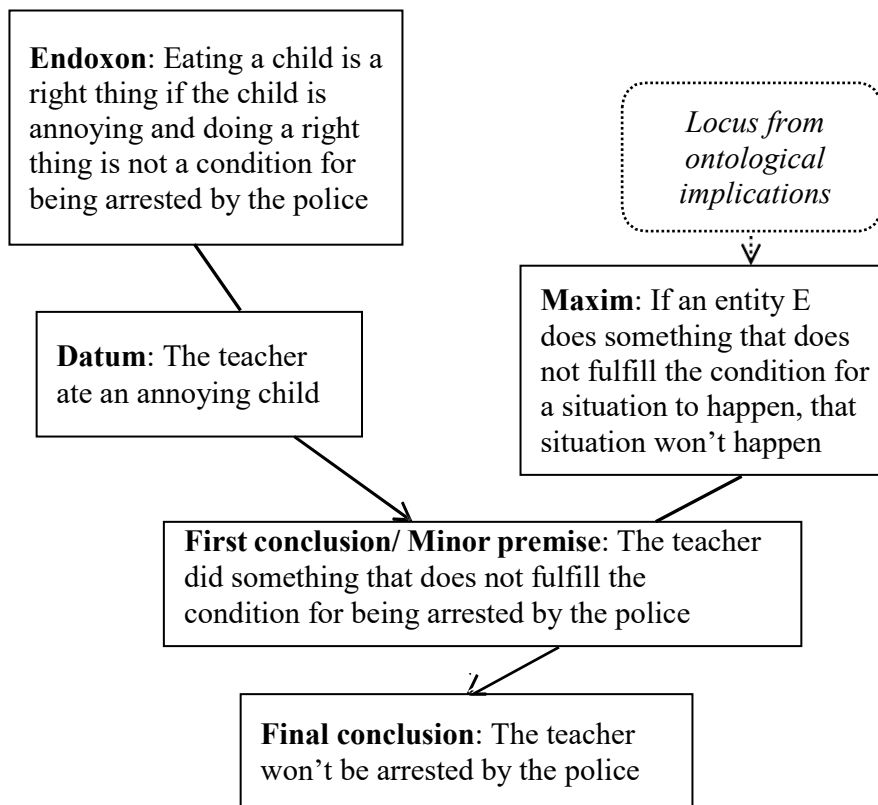


Figure 4.14: AMT of the argument challenged in “The teacher who eats children”

Davide advances that there is a better alternative to deal with annoying children (grounding them, instead of eating them); hence eating a child, even if he or she is annoying, is not a right thing, which is the implicit sub-standpoint of the subdiscussion he has implicitly raised (sub-issue B).

The teacher at the end of the excerpt concedes.

Although this episode shows a “playful situation”⁴⁹, it illustrates how children can rediscuss implicit principles hidden in adult’s propositions. In the corpus there were also cases of children problematizing *endoxa* in their peers’ arguments.

⁴⁹ The subdiscussion in this situation was raised because of a discrepancy in the interpretation of the Italian expression “lo mangio [il bambino]”. While the teacher used it as an idiom or metaphor conventionally expressing a harsh punishment (she was expressing her determination to start the activity without further interruptions), the children interpreted the expression literally. I wish to thank Sara Cigada for this comment.

Also this type of target of subdiscussions will reappear in other episodes presented in the course of the dissertation.

4.3.1.2.3 Subdiscussions challenging inferential-procedural starting points

Example III: “Kangaroos”

This example, within the examined corpus, was the only case of a subdiscussion on procedural starting points. Presenting and understanding this episode, even though it does not represent a prevalent type of target of subdiscussions, is also precious, since it still informs on how children reason in a specific context.

The excerpt is taken from the beginning of an afternoon activity for the group of older children (Moral dilemma II). The activity has not yet begun, because the teacher is outside the classroom, taking a phone call. Meanwhile, the researcher finds herself sitting at the table with Davide (6:6 yo), Nathan (6:4 yo), Federica (5:8 yo) and Christian (5:11 yo), and at a certain moment she realizes that Davide and Nathan are having an argument concerning whether all kangaroos have a baby.

Transcript:

{starts at 00:00:21}

- 1 RES: [allora]
So
- 2 NAT: [si]
Yes
- 3 DAV: [io no] in alcune no
I don't, in some of them no
- 4 NAT: sì io ho visto la foto che tutti i canguri (-) hanno il
bebè [(le femmine)]
Yes I saw the picture that all the kangaroos have the baby, the female ones
- 5 DAV: [no non] (lo puoi avere) tutti (.) (crescono) anche i
cangu:ri:
No you can't have all, also kangaroos grow up
- 6 NAT: ma io,=
But I...
- 7 DAV: =(ci sono) di più di (xxx) (-) ci sono (-) ci sono ancora
tantissimi (altri) (.) sono (--) tantissimi
There are more than...there are...there are still so many other, they are a lot
- 8 NAT: ma io dico che tutti (-) sì che hanno il bebè.
But I'm saying that all, yes that they have the baby
- 9 DAV: non È VE::ro.
It's not true
- 10 NAT: sì (.) che è vero.
Yes that it's true
- 11 DAV: non è VEro.=
It's not true
- 12 NAT: =è vero.
It's true

13 DAV: ho caPIto perché (xxx) ho capito perché (.) perché tu non
sai niente Ecco perché.
I get why, I get why... because you don't know anything, that's why

((omission, appr. 1 minute and 10 seconds))⁵⁰

36 RES: nathan tu cosa=tu hai detto che te l'ha detto la tua mamma?
Nathan, what you...what did you say, that your mom told you?

37 NAT: sì.
Yes

38 RES: e quindi la mamma non ti dice le buGIE quindi è giusta la
cosa che dici tu
And so the mom does not tell you lies so it is right the thing you are saying

39 NAT: sì è giusta.
Yes it's right

40 RES: hai sentito davide? (.) perché il nathan dice (-) la mia
Mamma mi ha detto questa cosa e quindi deve essere per forza
vera.
Did you hear Davide ? Because Nathan says...my mom told me this thing and so it must
be true

41 NAT: perché=perché le mamme non dicono le bugie vere.
Because, because moms don't tell true lies

42 (2.0)

43 RES: quindi secondo il nathan i canguri hanno tutti dei
bambini (.) [secondo il davide,]
So in Nathan's opinion, kangaroos all have babies, in Davide's view...

44 NAT: [tutte le FE:mmine.]
All the females

45 DAV: [no TUtti NO] [TUtti NO]
No, everyone no, not everyone

46 RES: [tutte le femmine] TUTte le femmine ha detto
[nathan]
All the females, all the females Nathan has said

47 ? [(a child screams)]

48 DAV: no (-) ((xxx xxx))
No

49 RES: neANche tutte le femmine (-) perché secondo te neanche tutte
le femmine?
Not all the females either, why in your opinion not all the females either?

50 ? (unintelligible, appr. 2 sec)

51 FED: (xxx xxx) cellulare
...Mobile phone

52 DAV: perché alcune femmine (--) (non ce l'hanno il bebé)
Because some females... don't have the baby

53 NAT: sì (.) tutte.
Yes all of them

54 DAV: no_o:.
No

55 NAT: sì.
Yes

56 RES: perché secondo te davide?
Why in your opinion, Davide?

57 CHR?: (unintelligible, appr. 2 sec)

58 DAV: (io ho visto) delle persone che non ce l'hanno.
I saw that some people don't have it

⁵⁰ Turns omitted because the children started insulting each other. I did not find useful to report these parts here, in fact they are not even relevant for the argumentative analysis.

59 NAT: sì: che ce l'hanno.
Yes, they do

60 DAV: [no.]
No

61 RES: [ci] sono=(davide dice) ci sono delle persone=
There are...Davide says that there are some people...

62 DAV: no non ce l'hanno (.) ci sono delle persone che non ce
 l'hanno.
No they don't, there are some people who don't have it.

63 NAT: IO sto parlando dell'ANIMALE.
I am talking about the animal!

64 DAV: ANCHE IO sto parlando dell'animale.
Me too I am talking about the animal!

65 NAT: [hai detto PERSONE]
You said people

66 DAV: [(non sto parlando)] delle persone non è vero stai Zitto.
 ... talking about people it's not true shut up!

{ends at 00:02:50}

In this excerpt, though the children are having an argument in the sense of “falling out, discussing heatedly”, they are also arguing in the sense of “advancing one or more propositions designed to justify [a] standpoint” (van Eemeren & Snoeck Henkemans, 2017, p. 1).

Our adapted analytic overview allows to reconstruct the interaction from an argumentative point of view.

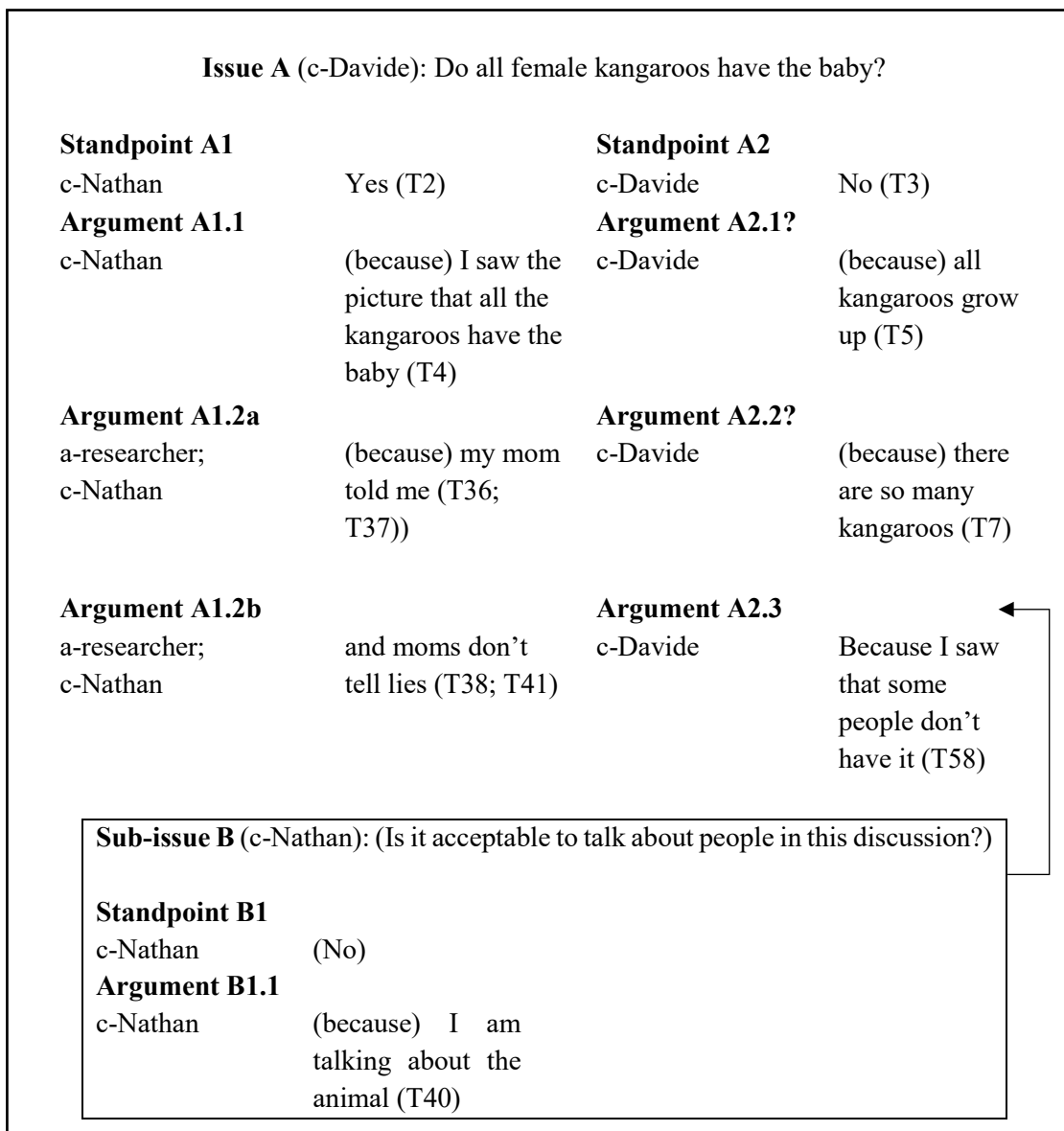


Figure 4.15: Analytic overview of “Kangaroos”

In the first turns of this exchange, it is possible to understand that Nathan and Davide have a difference of opinion concerning whether all the female kangaroos have a baby (issue A). According to Nathan, they do (turn 4), and he supports his standpoint by claiming that he saw “the picture that all kangaroos have a baby, the female ones” (turn 4). Davide takes the opposing standpoint (turn 3), and in turn 5 he seems to advance an argument, though the researcher did not manage to interpret it, that kangaroos grow up. A further possible argument is Davide’s utterance that there are many other kangaroos (maybe Davide is referring to the kangaroos in the picture mentioned by Nathan, but it is not evident). After that, the discussion stops being “critical” in pragma-dialectical terms (from turn 14 to 35 the children keep repeating that what the other is saying is not true,

and later they start insulting each other). The researcher decides to intervene, trying to re-establish a constructive argumentative discussion. She resumes an utterance said by Nathan that Davide possibly did not hear, because he had been busy berating the other child. This way the researcher introduces a further argument supporting Nathan's opinion ("your mom told you" - argument A1.2a), which Nathan confirms at turn 37; she also suggests the coordinate argument ("and mom does not tell you lies" – argument A1.2b), which Nathan repeats at turn 41. After helping Nathan's side, the researcher tries to make sure that Davide is understanding Nathan's reasoning (turn 40: "Did you hear Davide?"), and then she tries to create space for Davide to express his view at turn 43: "So, according to Nathan, all kangaroos have babies, in Davide's view..." – note that the researcher's final movement pitch is medium high, like she wanted Davide to take the turn and fill in her sentence. The children go back to their bicker, so the researcher, at turn 49, directly asks Davide to justify his position, why he thinks that not all female kangaroos have a baby. At first Davide answers "because some females don't have babies" (turn 52), which is not considered a real argument, as it is the repetition of his standpoint (Not all female kangaroos have babies). Later, Davide comes up with argument A2.3. According to him, not all female kangaroos have a baby, because "I saw that some people don't have it" (turn 58), which seems to establish a connection between kangaroos and people (argument from analogy). Nathan initially opposes this argument, but without a "critical" attitude. When the researcher reformulates Davide's proposition ("Davide says that there are some people...", turn 61), Nathan replies: "I am talking about the animal!" with emphatic accent on "I" and "animal". In the analysis I interpreted this reply as a challenge to Davide's proposition concerning people, as if Nathan was calling into question whether mentioning human beings was acceptable in that discussion (sub-issue B). In this case, if we reconstruct the inference of the argument that appears to be challenged (argument A2.3), it seems that the subdiscussion does not concern something at the material-contextual level of the argument (see the AMT in figure 4.16).

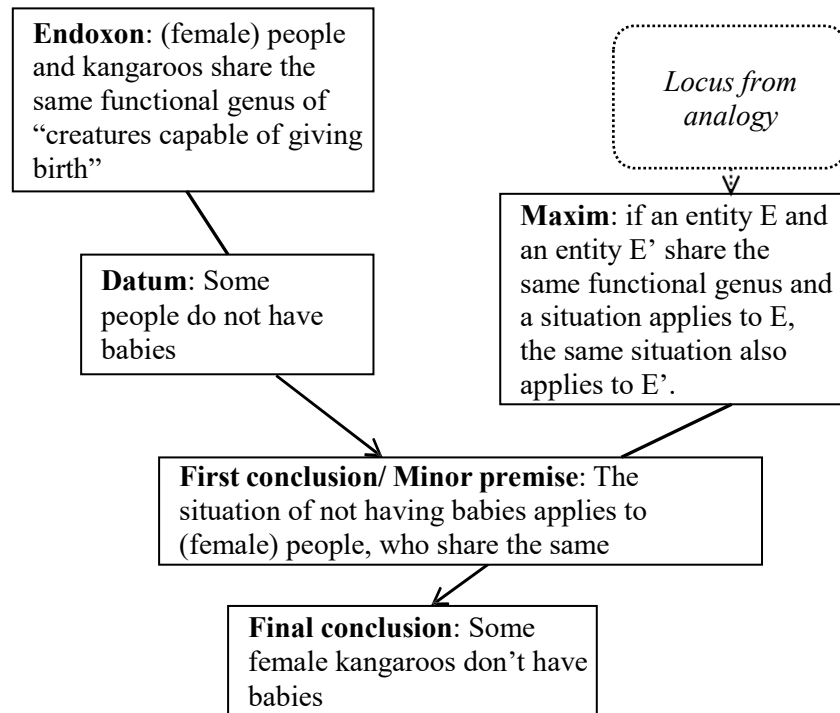


Figure 4.16: AMT of the argument challenged in “Kangaroos”

The challenge raised by Nathan has something to do with the argumentative move that Davide makes. Nathan is stating that he does not allow Davide’s analogy (*locus*): according to Nathan, in a discussion concerning kangaroos, propositions involving people are not pertinent, because it is animals that we are talking about. This subdiscussion was annotated as “inferential-procedural” in the sense of the AMT (the *locus* is at the base of the inferential-procedural component of the argument). However, this subdiscussion targeting the mode of reasoning employed by the child could be seen as “procedural” also in pragma-dialectical sense. The (im)possibility of making a certain move is something that pertains to the level of the procedure of a discussion.

Furthermore, if one takes into consideration Krabbe’s contribution and his list of agreements that can lead to a meta-dialogue⁵¹ (cf. chapter 2, subsection 2.3.2), this case of subdiscussion seems to concern point n.5: discussants can open embedded discussions on the *procedural* components of the discussion, such as the modes of reasonings accepted.

⁵¹ The researcher reminds the reader that, after the literature review done in Chapter 2, she concluded that the notion of meta-dialogue and that of subdiscussion point at the similar phenomenon, that of embedded discussions. In this work the researcher preferred to use the term “subdiscussion” to stay closer to the pragma-dialectic theory of argumentation.

4.3.1.2.4 Subdiscussions challenging the *issue*

The analysis of the subdiscussions in the corpus revealed that some subdiscussions did not directly challenge the argument of an already ongoing discussion, differently from what Rocci says in his examination of counterarguments (Rocci, 2021; cf. chapter 2, subsection 2.3.3). When applying the AMT, it was evident that the child's criticism, in these instances, did not concern a specific component of the argument; however, the child was still opening an issue related to the main *issue*, thus a sub-issue. The following paragraph offers an example that illustrates and clarifies this occurrence.

Example IV: "The brother"

This excerpt is taken from the "Moral dilemma (I)" activity. The group of older children (4-6 years old) are told a story about four imaginary school friends: Tina, Tony (who are brother and sister), Luca and Valentina. One day Tony sees Luca stealing Valentina's soft toy (a sheep) and he tells what he saw to his sister Tina, asking for advice on what to do. The children are asked what they would tell Tony, namely they are asked to discuss about what they would do if they saw a friend stealing something from another friend. The participants in the following excerpt are Nathan (6:4 yo), Bianca (5:1 yo) and Valeria (teacher). Right before this excerpt, Bianca advanced that she would immediately confront Luca.

Transcript:

{starts at 00:31:11.871}

829 VAL: [fai la] spia:?
You do the snitch?
830 (0.55)
831 NAT: si arrabbierebbe.
He would get angry
832 VAL: fa la spia:a::
She does the snitch!
(omission, about 15 seconds)⁵²
839 VAL: <<with a rhetorical tone> [quindi fai la] spia a tuo
fratello?>
So you snitch on your brother?
840 BIA: ((nods timidly))
841 (1.84)
842 VAL: e dopo luca cosa fa? (-) una volta che è stato tony a
dirlo?
And then Luca what does he do? Once it was Tony who said it?
843 (0.15)
844 NAT: [si arrabbia.]

⁵² Some turns are omitted because a child not participating in this activity, who was in the big classroom of the kindergarten, enters the discussion room and interrupts the activity with a question concerning his brother. The teacher answers him and, after he left, she resumes the discussion with the children.

He gets angry
845 BIA: [eh:m (.) io gli di]co (.) stupido basta (--)
tu gli ridai
quel pelu:che
Ehm, I'll tell him: "Stupid, stop it, you give him back that soft toy"
846 (0.70)
847 VAL: ma quindi a te non interessa la reazione (.) anche se luca
si arrabbia con tuo fratello fa niente.
But then you don't care about the reaction, even though Luca gets angry with your
brother it doesn't matter
(0.63)
848 NAT: okay (xxx xxx xxx) [(unintelligible)]
Okay (...)
((omission, 3 sec))
851 NAT: [è maleducatezza.]
It is unrudefity
852 BIA: [io non ho un fratello.]
I don't have a brother
853 VAL: ma tu sei TINA in questo momento.
But you're Tina in this moment
854 NAT: è [<p, scanning syllables> maleducatezza.]
It is unrudefity
855 VAL: [e tu hai un fratello che è tony](.) tu sei andata a dire
a luca (-) ah guarda che IO (-) sta storia l'ho saputa dal
mio fratello tony (.) come reagirà il luca.
And you have a brother that is Tony, and you went to tell Luca: "Look that I found out
about this story from my brother Tony", how will Luca react?

{ends at 00:32:07.044}

The discussion is reconstructed in the following figure:

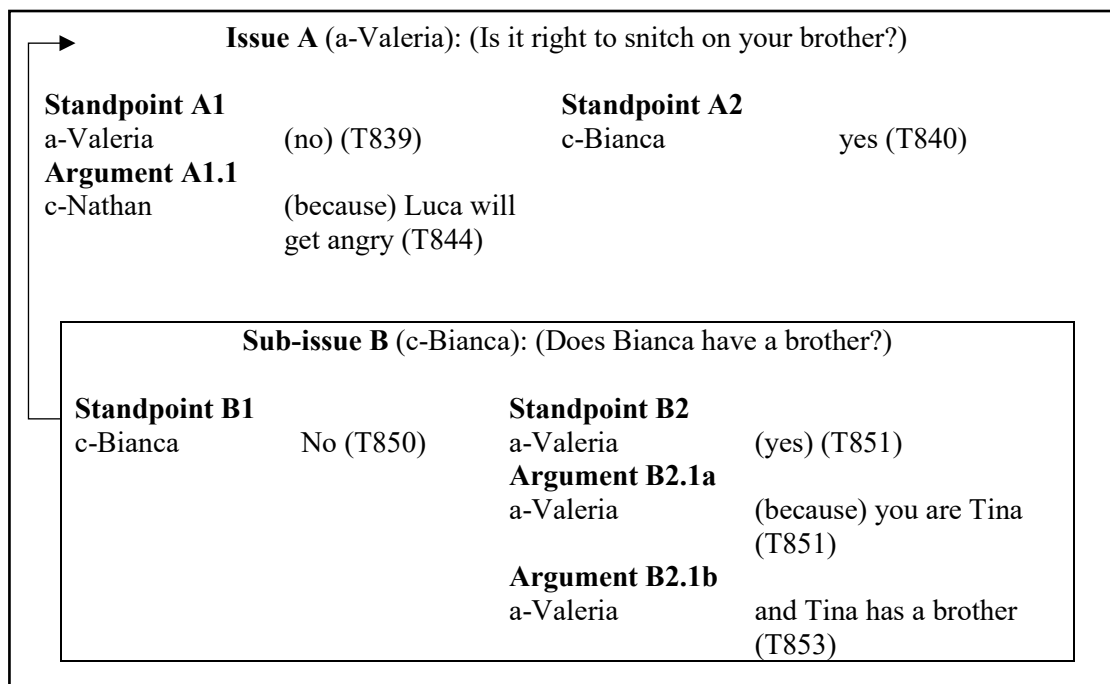


Figure 4.17: Analytic overview of the "The brother" example

As anticipated, before the excerpt, the teacher asked the children what they would do if they were Tina, after her brother Tony told her about what happened (remember that, according to the teacher's story, Tony told Tina that he saw Luca stealing Valentina's soft toy). Bianca advanced that she would confront Luca and tell him to give the soft toy back to Valentina. The transcript opens with the teacher accusing Bianca to snitch on his brother⁵³. After the interruption of a child that was not participating in the activity (see footnote 22), the teacher resumes the discussion by asking Bianca whether she would snitch on her brother (turn 839). The tone with which this question is uttered is rhetorical. An interlocutor could interpret this question as the teacher was advancing a negative standpoint with respect to the implicit issue "is it right to snitch on your brother?". Hence, I interpreted this as the beginning of an argumentative discussion. Bianca nods as an answer to the teacher's question. When the teacher asks for the consequences of snitching on Tony (turn 842), another child (Nathan) intervenes in the discussion and claims that Luca will get angry (which can be considered something bad). The fact that the teacher calls for the negative consequences of snitching out can be observed as an argument scheme applied to defend the implicit standpoint A1, that snitching out is not a right thing to do (see figure 4.18).

Since Bianca maintains her position (it is right to confront Luca at the expense of her brother), the teacher concludes that Bianca does not care about Luca's reaction towards her brother (turn 847), which could be interpreted as the teacher was realizing that Bianca does not care about the *endoxon* that was evoked (Luca getting angry at your brother is a bad consequence). After that, Bianca replies that she does not have a brother (turn 850). This sounds to criticize something in the discussion going on. However, considering the AMT of the argument advanced so far (see figure 4.18), it is evident that the child is not problematizing something in the argument, but she is questioning something in the *issue* proposed (issue A).

From her perspective – the real world in which she does not have a brother – the issue does not make sense. Why should she care about a brother she does not have? However, as the teacher uptakes the subdiscussion by taking an opposing stand, she claims that the issue does make sense in the perspective where Bianca is pretending to be Tina (which was how the discussion was structured by the teacher).

⁵³ The accuse of the teacher entails that Bianca would confront Luca by telling him that Tony told her what Luca did.

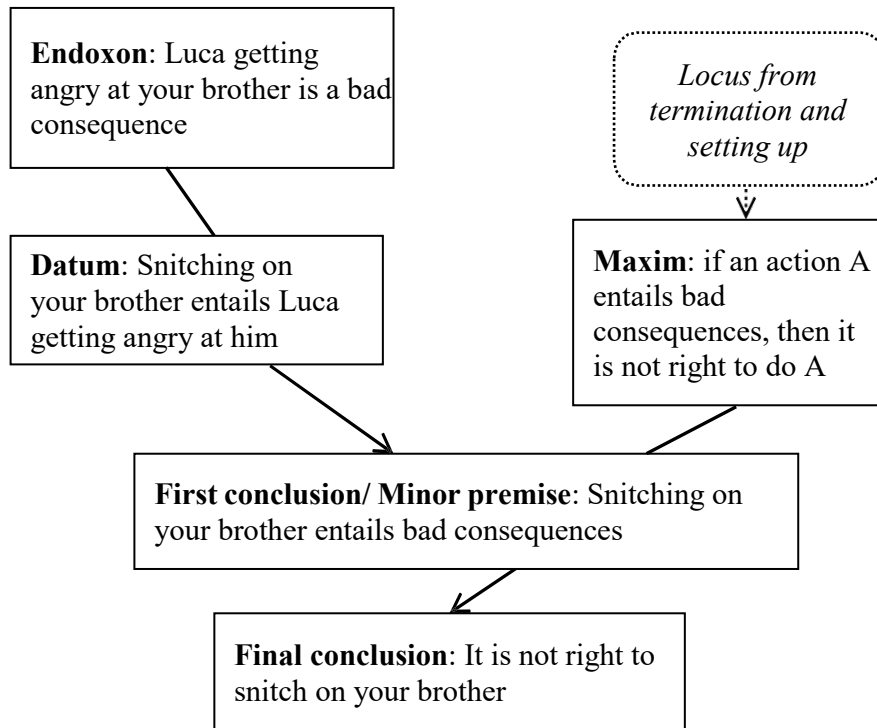


Figure 4.18: AMT reconstruction of argument A1.1 in “The brother”

This example is interesting for many reasons. Firstly, it allows to notice that subdiscussions emerge not only as counterarguments (see subsection 4.3.1.3, where the relation between subdiscussions and counterarguments is discussed). Subdiscussions not only target the premises (material-contextual or inferential-procedural) of an argument, but they can also question something in the *issue* of a discussion, in this case the pertinence of the *issue*.

Second, if we go back to the list of agreements that can lead to a meta-dialogue according to Krabbe (2003; cf. also chapter 2, subsection 2.3.2), we notice that the analysis of the corpus of this dissertation has found children opening subdiscussions by putting into question procedural and material components of a discussion (i.e., point 5 and 6). Instead, the possibility for parties to rediscuss the question around which the discussion revolves, i.e., the *issue*, is not mentioned. Yet, “The brother” example is a clear instance of this possibility. And this possibility, arguably, does not apply only to the context of children’s argumentation. We could think of examples in other contexts where adult discussants question *issues*. It could be in the court, where a lawyer to defend a client can claim that a certain *issue* is not relevant, and it could happen that the other party engages in a subdiscussion to defend why the *issue* proposed is instead relevant.

So, in a sense this example is important because it enriches the list of agreements that discussants can happen to rediscuss (cf. the discussion in Chapter 5, section 5.1).

One last consideration that makes “The brother” case interesting for this thesis is that it shows how subdiscussions can be windows to the “possible worlds” (Iannaccone et al., 2019) in which interactants situate themselves and through which they interpret the interaction and try to make sense of it. The opening of the subdiscussion allows the “possible worlds” to come to the surface. In Bianca’s world, she is impersonating herself in the situation that the teacher described to the children; in the teacher’s world Bianca is Tina. In this case, the teacher acknowledged the misalignment and tries to propose a readjustment, following the purpose of her activity. In Chapter 5, section 5.2, this insight will be further discussed in the light of the previous work studying how children reason and participate in argumentative interactions.

The next subsection goes on exploring the phase of emergence of children’s subdiscussions (RQ1a). So far, subsection 4.3.1.1 has illustrated that children can open a subdiscussion by problematizing something in an adult’s utterance (cf. “The teacher who eats children”), in line with Schär’s typology (2018a), but also by problematizing something in their peer’s interaction (cf. “Poachers vs hunters” and “Kangaroos”).⁵⁴ Moreover, subsection 4.3.1.2 has clarified what can be the target of children’s subdiscussions, namely what is that children can find problematic in their interlocutor’s utterance. In the corpus analyzed, children’s subdiscussions more often challenged the material-contextual starting points of the overarching discussion (mostly *data*, but also *endoxa*); but they also happened to rediscuss inferential-procedural starting points. Finally, many instances were found where children problematize something in the *issue* of the overarching discussion.

Now, subsection 4.3.1.3 adds a further aspect to the analysis of how children’s subdiscussions can emerge, namely it observes the relation between subdiscussions and counterarguments.

4.3.1.3 Subdiscussions and counterarguments

The relation between subdiscussions and counterarguments might be ambiguous. As described by Rocci (2021), counterarguments are “reasons against the acceptance of the conclusion of an extant argument” (p.143). Rocci continues explaining that “when the antagonist raises “an objection that makes clear why he does not accept the argument as a defense of the standpoint”, he ends up “defending a particular standpoint of his own”, giving rise to a mixed sub-dispute (van Eemeren et al. 2007: 193)” (Rocci, 2021:144). This means that subdiscussions may arise from counterarguments. In the corpus of this dissertation many instances of children’s subdiscussions emerged as counterarguments. Nevertheless, some may question whether subdiscussions and counterarguments are essentially similar phenomena and ponder whether subdiscussions could simply be

⁵⁴ In line with Schär (2018a), this research also identified subdiscussions opened by adults when problematizing something in a child’s utterance. However, these cases are not dealt with in this dissertation, since the focus of the research is on children’s subdiscussions.

viewed as counterarguments. This dissertation claims that subdiscussions deserve attention on their own. Firstly, the analysis of a counterargument does not capture the entirety of a subdiscussion. Subdiscussions represent dynamic dialogical processes that can originate from a counterargument: they involve the potential replies to the counterargument, and ultimately, they can impact the outcome of the overarching discussion within which they unfolded.

Moreover, in the corpus examined, there were many examples of subdiscussions that did not emerge as counterarguments, which underscores that subdiscussions deserve attention on their own.

This introduction was made to shed light on the phenomenon of subdiscussion. However, it is evident that a relationship exists between subdiscussions and counterarguments, with the latter providing valuable insights about the emergence of subdiscussions (cf. research question 1a).

Hence, the annotation scheme included the identification of subdiscussions that are opened as counterarguments (38 cases). Most of children’s counterarguments in the corpus were rebuttals of premises (e.g., “Poachers vs hunters” – subsection 4.3.1.1; “The art apron” – subsection 4.3.3.1), but also undercutters were found (e.g., “Good guy or bad guy” – subsection 4.3.2.2; “The wind” – in subsection 4.3.3.3). On the contrary, within the corpus, subdiscussions opened through rebuttals of conclusions were not identified. The absence of this occurrence is entirely coherent with Rocci’s diagramming of counterarguments (2021; see figure below).

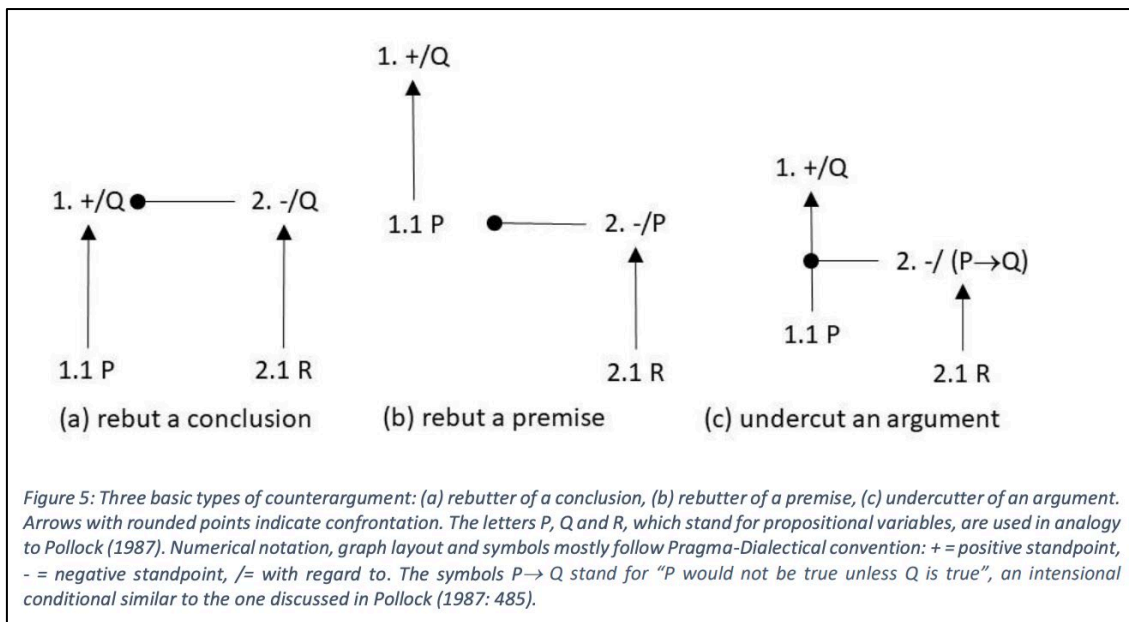


Figure 4.19: Rocci’s reconstruction of counterarguments (taken from Rocci, 2021, p. 154)

As Rocci points out: “When the counterargument rebuts the conclusion of the original argument (a), the counterargument supports a contradictory or contrary standpoint with regard to the proposition (Q) (...). This transforms the original discussion into a mixed dispute” (ibidem). Hence, rebuttals of conclusions do not lead to subdiscussions, but to the manifestation of a mixed dispute. On the other side, rebuttals of premises and undercutters can lead to the opening of a subdiscussion. In the former case (b), “the counterargument supports a negative standpoint with regard to the premise P supporting the original standpoint. Having used P as a premise, the original protagonist is obviously committed to its acceptability” (ibidem). So, when the child problematizes the premise P with his proposition, he is opening a mixed sub-dispute (hence, a subdiscussion) on the acceptability of the premise. As for the case of undercutters (c), the child is questioning the “support relation from P to Q” (ibidem), hence he is opening a subdiscussion where he is supporting, with his proposition (R) the sub-standpoint $\neg(P \rightarrow Q)$.

Let us now consider the subdiscussions that did not originate from a counterargument (23 cases). As one could imagine, these were mostly subdiscussions that did not target the starting points (material or procedural) of existing arguments. In fact, if counterarguments are moves aimed at challenging an existing argument (including their premises), the subdiscussions targeting something in the *issues* were opened by a move that challenged something else in the discussion (such as the validity or the pertinence of an *issue* – see “The brother”, in subsection 4.3.1.2.4; and “Pikachu”, in subsection 4.3.3.3).

However, I also annotated a few cases where a child opened a subdiscussion by calling into question a material-contextual starting point of an argument (the *datum*), but the child’s proposition is not a counterargument, if the definition of counterargument is followed strictly. This happened for example when a child claimed that the *datum* provided in the interlocutor’s argument is not true. The child is casting doubt on the premise (which leads to the opening of a sub-issue on the acceptance of that premise), but he is not advancing “reasons against the acceptance of the conclusion of an extant argument” (Rocci, 2021); however, his utterance of the type “the *datum* is not true” is a potential sub-standpoint (see, for instance, the “Rudeness” case in subsection 4.3.2.3).

Next subsection turns to the last aspect that was considered to explore the emergence of children’s subdiscussions, namely whether children provided justifications for the opening of a subdiscussion.

4.3.1.4 Is the opening of a subdiscussion justified?

According to Jean Goodwin (2002), “an issue is a more or less determinate object of contention that is, under the circumstances, worth arguing about” (p.86). This entails that “to make an issue of some matter, the arguer will have to a) render it as determinate as required for the particular situation, and b) show that, under the circumstances, it is worth arguing” (Goodwin, 2002: 88). Hence, in the analysis of the emergence of children’s

subdiscussions, it was also observed whether children somehow “render” their sub-issue “worth arguing”.

In the corpus, 46 cases were annotated where the opening of the subdiscussion is justified by means of an argument. Naturally, most of these instances were subdiscussions opened through counterarguments, so the counterargument is actually the justification for the opening of the subdiscussion. Yet, the previous subsection reported a total of 38 subdiscussions raised as counterarguments. The remaining 8 cases of subdiscussions opened and justified by an argument were subdiscussions challenging the *issue*, which means that in some cases children problematized something in the *issue* (its validity, its pertinence) and advanced arguments to support the subdiscussion on the *issue*.

The subdiscussions that were opened and not justified were 15: in some of them children targeted the *issue*; in others, children only put into doubt material premises of arguments. The fact of providing justification for the opening of a subdiscussion could be linked with Charles Goodwin’s idea that some type of event could be seen as “disruptive” in communication (Goodwin, 1987; Goodwin & Goodwin, 1990). Hence, it could be that the opening of a subdiscussion is often justified to try to repair its “disruptive behavior” and make the challenge worth accepting. Craig and Tracy (2005) also found, in a different context, that “[...] in order for an issue that was brought up to be accepted as a legitimate discussion topic, it needed to be sufficiently relevant” (p.16).

It can then be interesting to observe whether there is a correlation in the corpus between the subdiscussions that were uptaken and the subdiscussions that were justified. This correlation is not found in our data. The justified subdiscussions are 46 and 41 of these were uptaken, which is positive for our test (especially if we consider that all the subdiscussions not emerging from counterarguments that were defended have been uptaken). However, the subdiscussions that were not justified were 15 and 13 of these were uptaken anyway. So, it seems that the fact of being justified was not necessarily a factor encouraging the acceptance of the subdiscussion, at least in the corpus examined. Further research could better delve into this aspect. Though the previous test was not successful, it is noteworthy that children happen to provide justifications for their subdiscussions most frequently.

A further possible research lead is observing whether adults do also feel the need to provide justification when they open subdiscussions or not. This type of work could contribute to deepen the understanding of the legitimacy of who can open issues.

This subsection concludes the part dedicated to the emergence of children’s subdiscussions (RQ1a). Subsection 4.3.2 then shifts focus on the next phase in the “life cycle” of subdiscussions, i.e., their development.

4.3.2 The development of children’s subdiscussions

To investigate the development of subdiscussions (RQ1b), the following criteria have been annotated: whether the subdiscussion, after being opened by a child, is uptaken or not; by whom it is uptaken; and how it is uptaken (type of uptake).

In the corpus, 54 out of 61 subdiscussions were uptaken. However, this does not necessarily mean that the subdiscussion is then fully unfolded; it only indicates that at least one person reacts to the child’s initiative in some way. It also means that in 7 instances, *sub-issues* raised by children remained unaddressed. Various factors contributed to this occurrence: in one situation, for example, the subdiscussion was opened at the very end of the activity, while the teacher was preparing the song to conclude the session and other children were engaged in their own conversations. In most cases, when the child opened the subdiscussion, the adult was listening, but was also talking at the same time with other children, so she had to choose a thread of discussion to follow, cutting the other. In one case, the subdiscussion opened by a child was perceived by the adult as if the child was playing up.⁵⁵ Finally, once, the teacher seemed not to take into consideration the subdiscussion opened by a child because she was focused on finishing the activity according to her objectives.

As for the 54 subdiscussions that received a reply, some were uptaken only by one person (an adult or another child), and others by two people (either an adult and another child, two children, or two adults). It is important for us to distinguish the subdiscussions that were uptaken by adults and those who were uptaken solely by other children. The following figure provides an overview of the uptakes identified in the corpus:

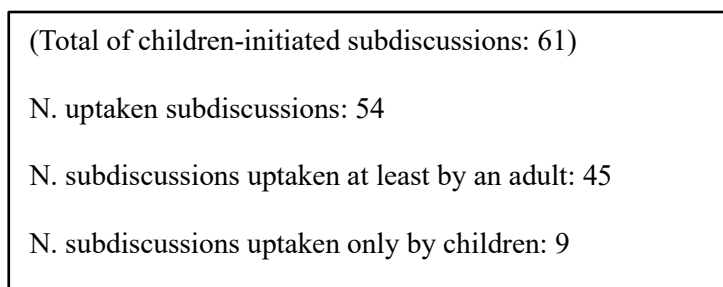


Figure 4.20: Overview of uptakes in the corpus

There were 9 instances where only children responded to the initiation of the subdiscussion, with no adult involvement. One of these cases is the “Poachers vs hunters” example, where the teacher did not engage in the children’s subdiscussion, because she seemed distracted with the poster falling from the classroom wall. Together with the seven cases of subdiscussions that were not uptaken at all (mentioned at the beginning of the

⁵⁵ It was the researcher (myself) the adult who had this perception.

sub-section), it means that 16 children’s subdiscussions (almost a quarter of the total) have not received adult’s attention.

Shifting our focus to the 45 cases where at least one adult responded to the initiation of the subdiscussion, the type of uptake was examined, meaning how the adult reacted to the opening of the subdiscussion. The subsequent types of uptakes were identified:

Type of uptake (by adult)	Frequency
Taking opposing sub-standpoint	8
Taking supporting sub-standpoint	23
Taking no sub-standpoint (compromise)	6
Opening new subdiscussion	6
Other	3

Figure 4.21: Types of uptakes of the opening of a subdiscussion

The type ‘taking opposing sub-standpoint’ happens when the interlocutor replies to the opening of a subdiscussion by taking an (implicit or explicit) opposing sub-standpoint, which makes the subdiscussion a mixed sub-dispute (cf. van Eemeren & Grootendorst, 2004).

The type ‘taking supporting sub-standpoint’ refers to cases where the adult somehow supports the subdiscussion that has been opened. For example, in many cases in the corpus, it occurred that the teacher echoed or reformulated the children’s challenging proposition that led to a subdiscussion, using a certain tone to encourage the child to pursue his or her reasoning, as if she found the challenge advanced interesting. In some cases, it even occurred that the adult introduced arguments in favor of the sub-standpoint that is advanced by the child with the subdiscussion. With this type of reaction, it was as if the adult was validating and endorsing the child’s subdiscussion. It should be noted that this type of uptake was the most frequent reaction in the corpus.

The type ‘taking no sub-standpoint (compromise)’ indicates those cases where the interlocutor, after the opening of the subdiscussion by the child, starts acting similarly to a mediator. The instances where this happened are all subdiscussions opened by a child challenging a peer’s utterance (type 3B in our revision of Schär’s model, cf. subsection 4.3.1.1). The adult, in these cases, replies to the subdiscussion without taking a stand and trying to help the involved children to resolve their differences of opinion.

The type ‘opening new subdiscussion’ indicates the situation where the interlocutor replies to the subdiscussion by opening a further subdiscussion. In the corpus, this occurred when the child opened a subdiscussion justified by means of an argument, and the latter is challenged in turn by the adult, which provokes the emergence of a further subdiscussion.

Finally, a type ‘other’ was created to include three cases whose categorization was not evident.

In the following subsections, examples of the different types of uptakes are provided.

4.3.2.1 Uptake of a subdiscussion by taking opposing sub-standpoint

Example V: “Hot and cold”

This episode is taken from the video recording “The desert island”, where the teacher and the researcher proposed an activity to the older children (4-6 years old). The teacher told them to imagine they were going to a desert island and that they had to choose one object they would bring with them. The idea of this activity takes inspiration from the ‘Robinson task’ (see Luginbühl & Müller-Feldmeth, 2022). During the data collection, I attended a VALS-ASLA conference (in February 2022), where I discovered this contribution by Luginbühl and his team, and I talked about it with the teacher of the kindergarten. The “Robinson task” consists in a designed discussion where children are given some pictures of objects, and they are asked to discuss together and decide which object they would bring to go to a desert island. The teacher of the kindergarten found the activity fascinating and in line with the discussion stimuli that she usually proposed to her class. So, on one day, she proposed as discussion topic “The desert island”, which is a more simplified version of Luginbühl’s Robinson task (the teacher did not provide a prepared list of objects but decided to leave the choice of objects completely open to the children). The participants in the following excerpt are Valeria (teacher), Davide (6:6 yo), Nathan (6:4 yo), Gaia (4:6 yo) and the researcher (myself). The transcript starts right after a child (Davide) had just advanced his idea of bringing a pillow and a blanket.

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:lida.
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

{ends at 00:06:34.905}

Let us display the argumentative interaction through the analytic overview:

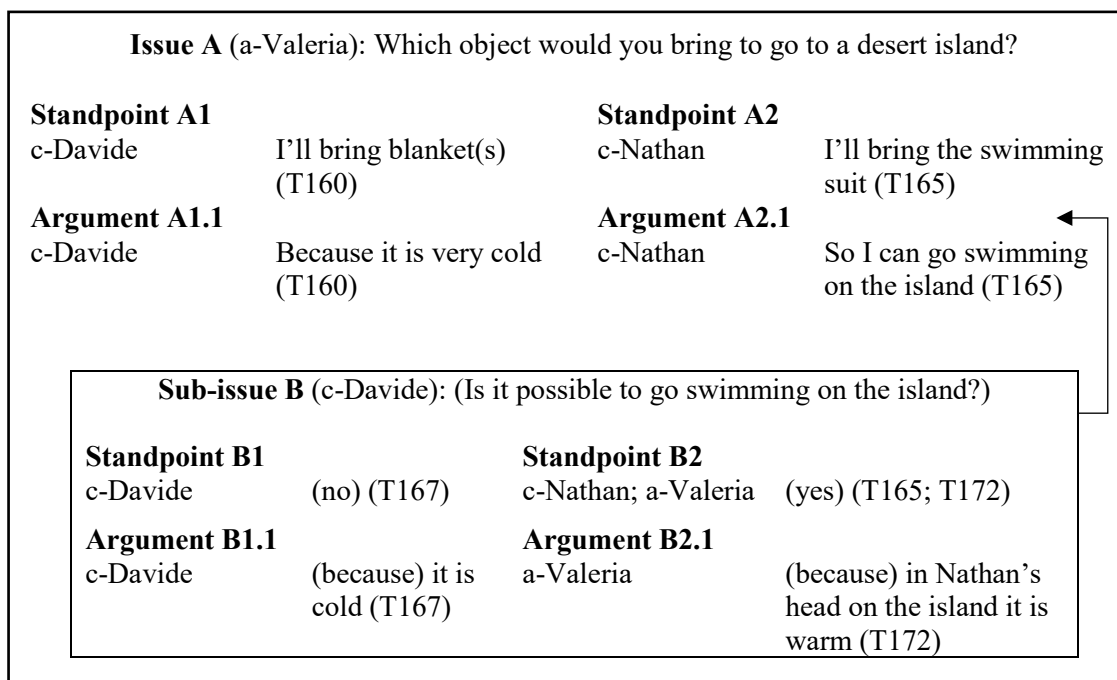


Figure 4.22: Analytic overview of the “Hot and cold” example

The overarching issue is the question that the teacher asked when she presented the activity: “Which object would you bring to go to a desert island?”. At the beginning of the excerpt, the teacher is reformulating the proposal of a child: Davide advanced that he would bring a pillow and a blanket, which then becomes two blankets, and eventually “one super warm blanket” (turn 164). The reason why the child is thinking of blankets as an object to bring to the desert island is that “it is very cold” (turn 160). It is not possible to understand if the child mentions the cold because it was actually cold at the moment

where the interaction takes place (it was winter in Switzerland), or if it is that in the child’s view it was cold on the imaginary island (he might know that nights are cold in the desert?⁵⁶). Anyway, after that, another child (Nathan) advances his proposal of object to bring to the island. He claims that he would bring the swimming suit so he can go swimming on the island (T165). This argument is based on the *locus* of final-instrumental cause (see the AMT reconstruction below).

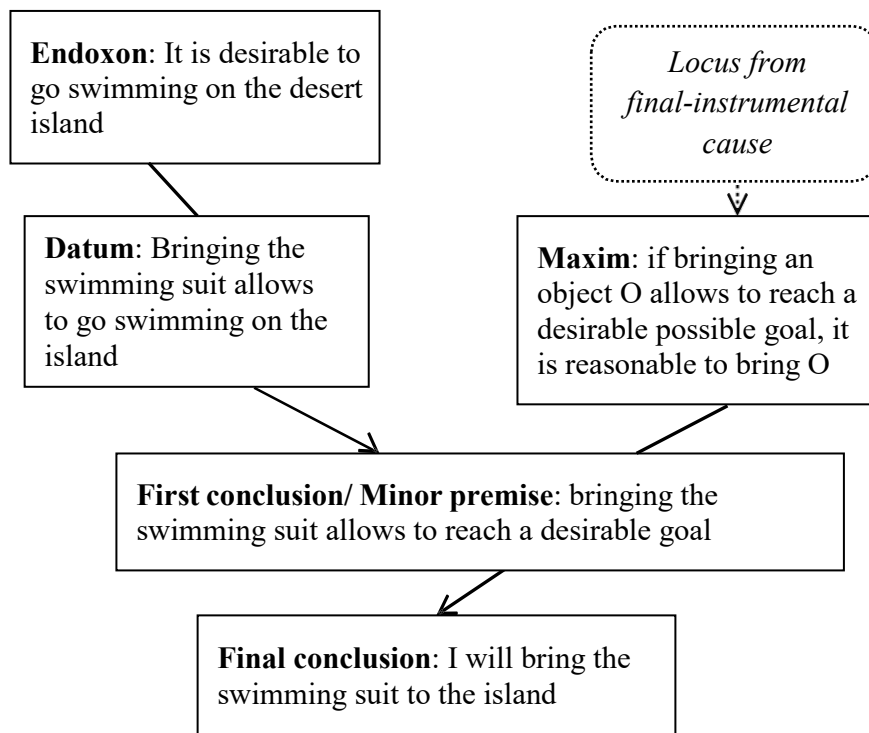


Figure 4.23: AMT reconstruction of the argument challenged in “Hot and cold”

Davide reacts to Nathan’s proposition by reminding that it is cold on the island, which was why he brings the blanket. At the same time, his utterance seems to put into question whether swimming on the island is possible (sub-issue B). At the beginning Davide is ignored, as the teacher reformulates Nathan’s idea of the swimming suit (turn 168) and another child, Gaia, also agrees with the swimming suit. Davide then repeats his criticism (“It is cold”, turn 171). Subsequently, the teacher enters the child’s subdiscussion by advancing a proposition (“In Nathan’s head on the island it is hot”), which supports the implicit counter sub-standpoint (“It is possible to go swimming on the desert island”) in the subdiscussion.

This example, then, shows how an adult can react to the opening of a subdiscussion by adopting the opposing sub-standpoint with respect to the child initiating the subdiscussion. Through this type of uptake, it may be that the adult simply disagrees with

⁵⁶ Thanks to Anne-Nelly Perret-Clermont for thinking of this interesting possibility.

the child's criticism or in some cases it may be that she tests the "strength" of what the child has advanced.

4.3.2.2 Uptake of a subdiscussion by taking supporting sub-standpoint

Example VI: "Good guy or bad guy"

This episode presents a different way with which the adult uptakes a child's subdiscussion. The excerpt is taken from the "Moral dilemma (I)" activity, that was already presented in example IV ("The brother"). The main topic is still what the children would do if they saw a friend stealing something from another friend. In the transcript, the teacher starts a discussion about the character of Luca (reminder: in the story told by the teacher, Luca stole the soft toy of his friend Valentina, and he does not know that Tony, another friend of theirs, has seen him. Tony tells what he saw to his sister Tina and asks her for advice on what to do).

The other participants in the excerpt are Bianca (5:1 yo), Nathan (6:4 yo) and the researcher.

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.

563 ah! Perhaps he wants to do something nice
 (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

 {ends at 00:21:08.176}

The argumentative interaction is reconstructed in the following figure:

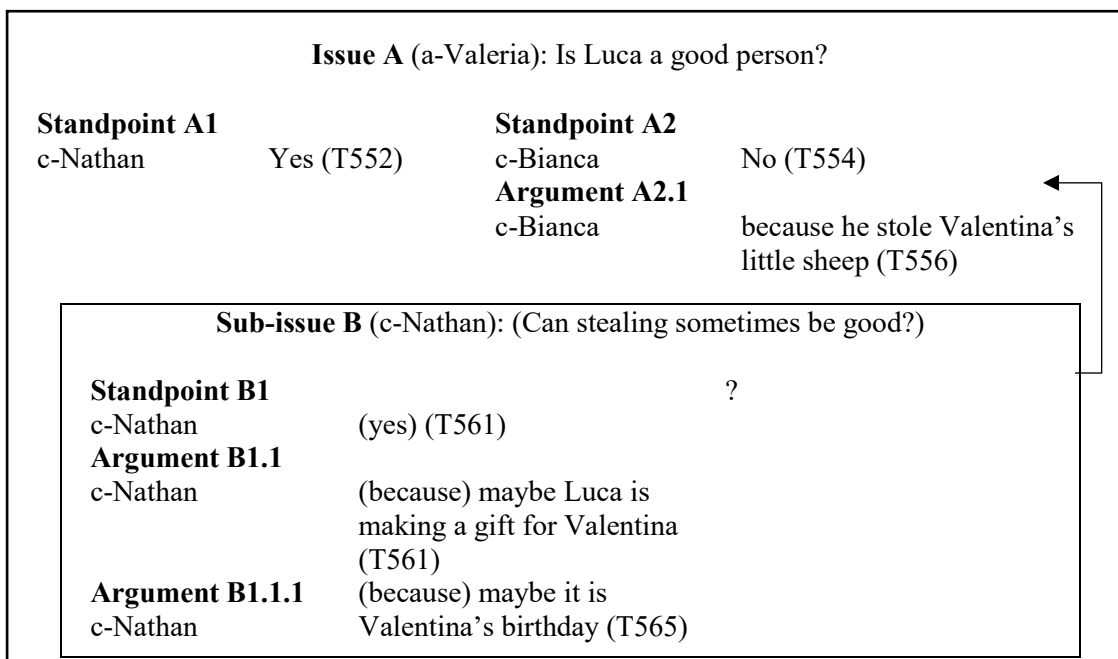


Figure 4.24: Analytic overview of “Good guy or bad guy”

In this case, the issue is an explicit question that is asked by the teacher (T549). It becomes an argumentative discussion as soon as Bianca opposes Nathan’s opinion, and she even advances an argument for her standpoint. According to Bianca, Luca is not a good person because he stole Valentina’s soft toy (and a person who steals cannot be defined as a good person). Nathan reacts by thinking about whether there might be some good reason why Luca stole the soft toy, thus challenging the *endoxon* that is implicit in Bianca’s reasoning (see the AMT reconstruction of Bianca’s argument in figure 4.18).

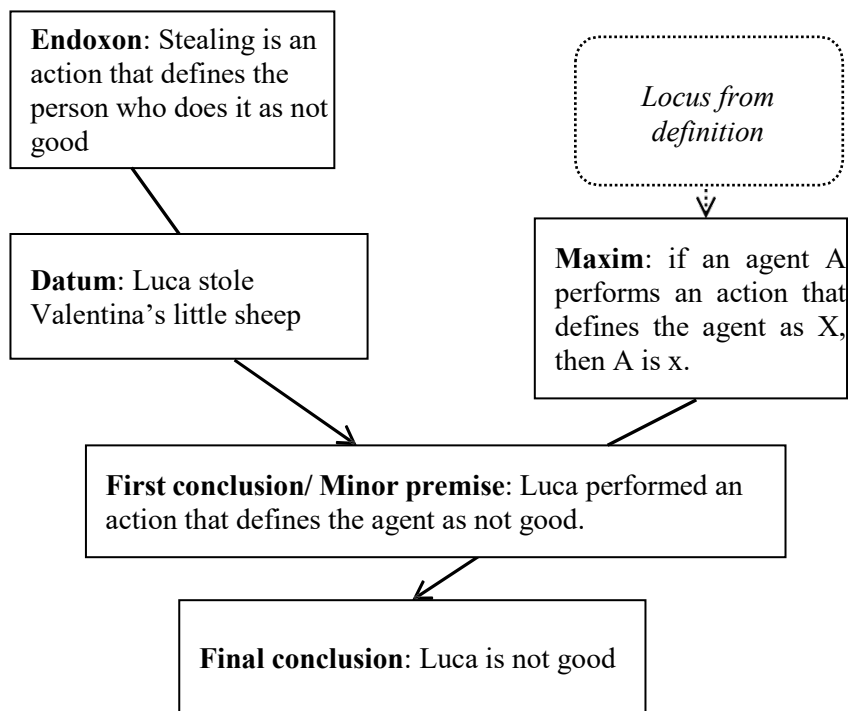


Figure 4.25: AMT reconstruction of Bianca’s argument in “Good guy or bad guy”

Bianca does not react to Nathan’s challenge. More interestingly, the teacher and the researcher seem to encourage and embrace Nathan’s perspective. At turn 562, the teacher reformulates Nathan’s proposition (“perhaps he [Luca] wants to do something nice”). Also at turn 564, 566 and 569, the teacher’s reaction is that of following up the proposition of the child, who comes up with further arguments for why stealing could sometimes define someone as good. The teacher’s moves have the effect of giving credit to the child’s position. At turn 575, even the researcher supports Nathan’s subdiscussion by reformulating that maybe there is a positive reason why Luca stole the soft toy. At the end, the class seems to accept that Luca might not be a bad character.

In this case the adults showed a clear supportive reaction to the subdiscussion opened by the child (second type of uptake of children’s subdiscussions). Here the adult reformulated the child’s propositions, but in the corpus the researcher found also cases

where the adult advances arguments supporting the sub-standpoint introduced by the child through the subdiscussion.

4.3.2.3 Uptake of a subdiscussion by taking no sub-standpoint (compromise)

Example VII: “Rudeness”⁵⁷

This episode comes from the “Moral dilemma (I)” activity as well. The children had to put themselves in the shoes of an imaginary character, Tina, who must advise Tony on what to do as he saw his friend Luca stealing another friend’s soft toy. The following discussion occurs soon after “The brother” case (example IV in subsection 4.3.1.4), where Bianca advanced that she would confront Luca and tell him to give back the soft toy to Valentina. The participants in this excerpt are Valeria (teacher), Davide (6:6 yo), Nathan (6:4 yo) and Bianca (5:1 yo). The transcript starts with the teacher asking Davide whether he agrees with Bianca’s idea.

Transcript:

{starts at 00:32:18.009}

862 VAL: davide (-) tu approvi come si comporta la bianca?
Davide, do you agree with how Bianca behaves?
863 (0.25)
864 faresti anche tu così:?
Would you also do like that?
865 DAV: ((nods))
866 NAT: è maleduca[tezza].
It is unrudeness
867 DAV: [io no] (.) io no=io no avevo paura (.) (quando)
(.) si arrabbiava
I wouldn’t, I didn’t-I wasn’t afraid when he got angry
868 (0.44)
869 VAL: secondo te non si arrabbia e non ti importa anche se si
arrabbia.
According to you he doesn’t get angry and you don’t care even if he gets angry.
870 (0.27)
871 NAT: va che co[si è]
Beware that this is
872 DAV: [(con chi)] [si arrabbia?]
With whom he gets angry?
873 NAT: [(così) è male][ducatezza]
Like this it is unrudeness
874 VAL: [LUca (-) con TE.]
Luca... at you
875 (0.75)
876 NAT: sei mol[to maleduca]t(i)
You are very rude
877 DAV: [ah con me?]

⁵⁷ This word is a calque from the Italian word that is used by the child in this episode (“maleducatezza”). The correct version of the word in Italian is “maleducazione” (rudeness).

Ah at me?
 878 (0.04)
 879 con me
 At me
 880 (1.25)
 881 non mi fa paura.
 I am not afraid
 882 (0.12)
 883 VAL: okay (-) quindi per te (-) la cosa giusta è andare ad
 affrontare luca (.) anche se si arrabbia.
 Okay, so for you, the right thing to do is go confront Luca, even if he gets angry.
 884 (0.37)
 885 NAT: NO.
 No
 886 (0.35)
 887 questa è maleducatezza.
 This is unrudefity
 888 (0.68)
 889 DAV: non è vero
 It's not true
 890 NAT: devi parlare con le buone non con [le cattive.]
 You should talk nicely not meanly
 891 DAV: [ma io non ho] detto cose
 cattive
 But I didn't say mean things
 892 (1.35)
 893 NAT: ma la bianca (-) ha detto cose (.) cattive.
 But Bianca... she said mean things
 894 (0.05)
 895 DAV: io no
 I didn't
 896 (0.28)
 897 NAT: (aiuta)
 help
 898 (0.24)
 899 VAL: magari davide ci va a parlare con un tono:: diverso (.)
 cosa gli diresti tu a luca?
 Maybe Davide goes confront him with a different tone, what would you say to Luca?
 900 (0.98)
 901 NAT: devi parlare [(xxx xxx xxx xxx)]
 You should talk (...)
 902 DAV: [perché (.)] perché (.) l'hai preso
 Why...why did you take it?
 903 (0.50)
 904 VAL: tu vuoi=vorresti avere delle informazioni.
 You want-you'd want to have some information
 905 (0.50)
 906 perché=perché mi piaceva e perché sono arrabbiato con la
 valentina.
 Because... because I liked it and because I am angry at Valentina
 907 (0.10)
 908 NAT: forse perché (.) è geloso e dice il suo peluche è più
 grande del mio:.
 Maybe because... he is jealous and he says that her soft toy is bigger than mine.
 909 VAL: e cosa fai in questo caso?
 And what do you do in this case?

{ends at 00:33:26.714}

The following figure enables to display this exchange from an argumentative point of view.

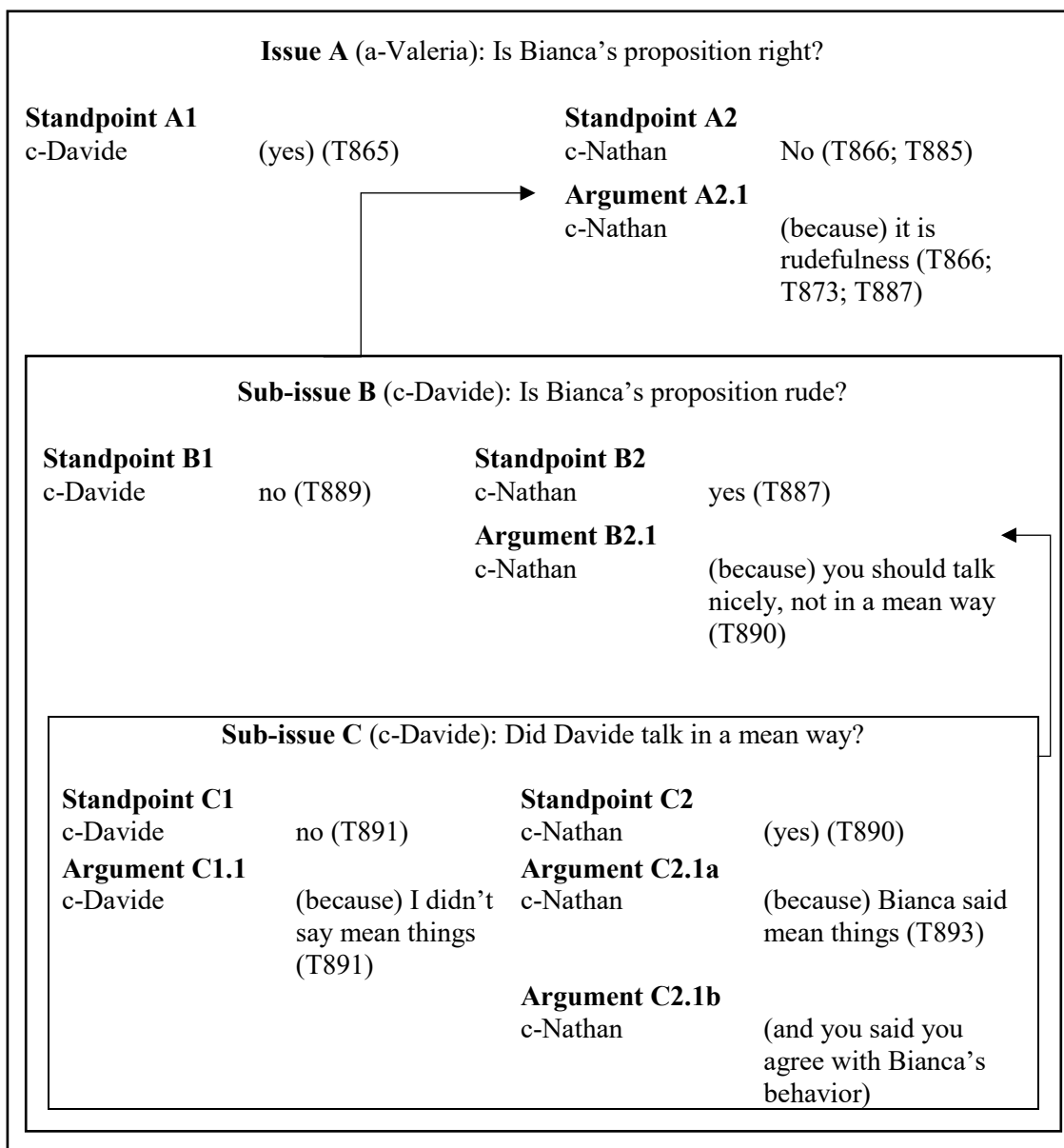


Figure 4.26: Analytic overview of "Rudeness"

The main argumentative discussion starts when Davide takes a positive standpoint with respect to the question that the teacher has asked (whether Bianca's idea, namely, to go confront Luca, is right), and Nathan takes the opposing standpoint. This can be seen as the confrontation stage of the discussion (van Eemeren & Grootendorst, 2004). Besides this, Nathan immediately provides an argument for why, according to him, what Bianca proposed to do is not right: doing like this is "rudeness", i.e., rude. This is not the first time Nathan advances this proposition (see also the transcript in "The brother", subsection

4.3.1.4). However, the teacher and Davide, at first, continue the conversation between them, and they seem to ignore Nathan’s contribution.⁵⁸ At turn 883, Valeria resumes in one sentence Davide’s position, for as she has understood it: in Davide’s opinion, it is a right thing to do to go confront Luca, even if he gets angry at him. Nathan stubbornly keeps repeating his argument, which is finally uptaken by Davide at turn 889. Davide replies that Nathan’s argument is not true. If we consider the reconstruction of the argument (in figure 4.27), it is the *datum* that the child is clearly calling into question.⁵⁹ Hence, there is the emergence of a potential new discussion revolving about whether confronting Luca is rude or not (sub-issue B).

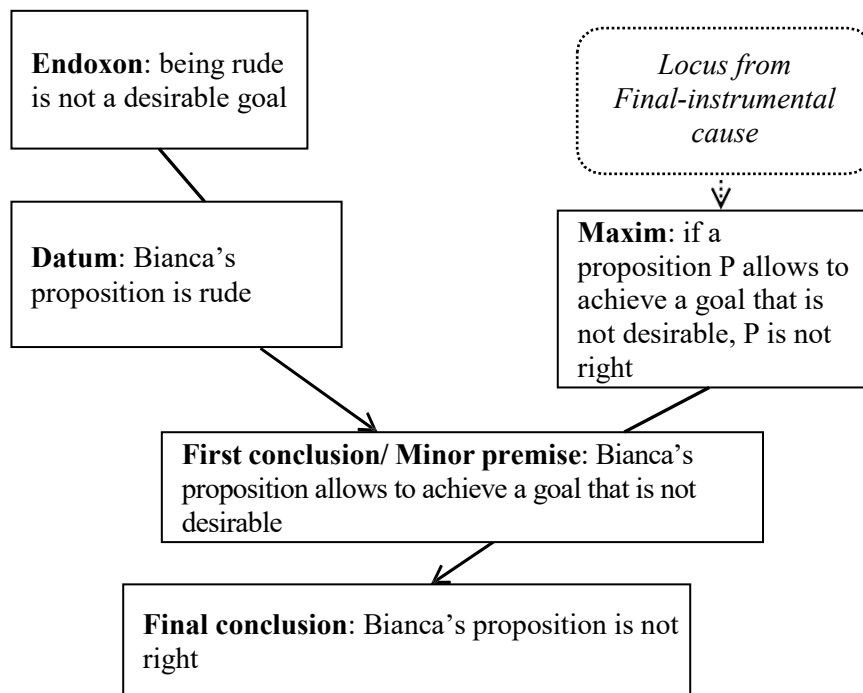


Figure 4.27: AMT reconstruction of the argument challenged in “Rudeness”

Nathan uptakes the subdiscussion opened by his classmate, and he advances an argument to support his opposing sub-standpoint, i.e. that Bianca’s idea (confronting Luca) is rude. His argument is that you should talk nicely and not with a mean attitude. Nathan here is

⁵⁸ As a side note, it is important to tell the reader that during this particular activity (“The moral dilemma (I)”), the teacher explicitly told Nathan to leave space to his classmates to express their ideas too; so she happened to ignore him on purpose sometimes, or she even used to give him some “bad” glances, to manifest that she was feeling unhappy with him always intervening when other children were talking.

⁵⁹ In the subsection dedicated to subdiscussions and counterarguments (subsection 4.3.1.3), I mentioned cases where the subdiscussion can call into question the material-contextual starting point of an extant argument but without being a counterargument. The subdiscussion opened by Davide here, in the “Rudeness” example is an instance. In fact, the child is just advancing the sub-standpoint that the datum is not true (which calls into question the acceptability of the datum), he is not advancing a proposition supporting such sub-standpoint (which would have been the counterargument).

probably referring to the original proposition of Bianca, that appears some lines before this excerpt (cf. the transcript of example IV): Bianca said that she would tell Luca “Stupid, stop it, you give him back that soft toy!”. Nathan’s argument here is based on the *locus* from definition: he is in fact expressing that talking to someone with a mean attitude is being rude, which presupposes that Bianca and Davide talked to Luca in a mean way (*datum*).

Once again, Davide reacts critically to this argument: he utters “but I didn’t say mean things” (turn 891), which is a counterargument attacking the *datum* presupposed by Nathan. Hence, he raises a new sub-issue (sub-issue C) that is again uptaken by Nathan, who makes explicit that he was referring to Bianca’s original proposition.

The teacher intervenes at this point, but she does it in such a way that she does not take a real stand with respect to the subdiscussions. She seems to take a third-party role (like that of a mediator) and she tries to help the children come to solve their dispute. In fact, she opens a space for Davide to help him express his position and she suggests the possibility that Davide might confront Luca, but in a different way than Bianca, which could be acceptable for Nathan. When at turn 904, Valeria utters “you’d want to have some information [from Luca]” seems to be finding a compromise that satisfies both Davide and Nathan. This reaction seems to have success, since both children stop their criticism, and subsequently the teacher goes on with the activity.

In this example, it was possible to observe that the adult did not take neither an opposing nor a supporting stand in the subdiscussion. However, she acknowledges the child-initiated subdiscussions and tries to help the engaged parties to find a compromise, a solution to resolve the difference of opinion. This corresponded to the third type of response that the adult had to the opening of a child’s subdiscussion within our corpus.

4.3.2.4 Uptake of a subdiscussion by opening a new subdiscussion

Example VIII: “The wand”

This episode comes from the activity “The Frog Prince”. The group of older children (4-6 yo) was given by the teacher the six vignettes in figure 4.28.

The task for the children was to put the vignettes in the right order and try to tell the story behind. As the reader can see in the picture, the story is a version of the German fairy tale “The Frog Prince” by the Brothers Grimm.⁶⁰

The participants involved in the following transcript are Valeria (teacher), Federica (5:8 yo), Nathan (6:4 yo) and Davide (6:6 yo). The excerpt begins with Federica telling her version of the story.

⁶⁰ This is the version of the tale where a princess meets a frog after she dropped a golden ball into a pond. The frog gives her back the ball in exchange for her friendship. When the two characters fall in love, the frog, which was under a wicked spell, magically transforms back into a handsome prince.



Figure 4.28: The vignettes from “The Frog Prince” activity

Transcript:

{starts at 00:17:02.002}

- 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 he knocked on the door
 the frog

{ends at 00:17:46.012}

The interaction can be reconstructed as follows:

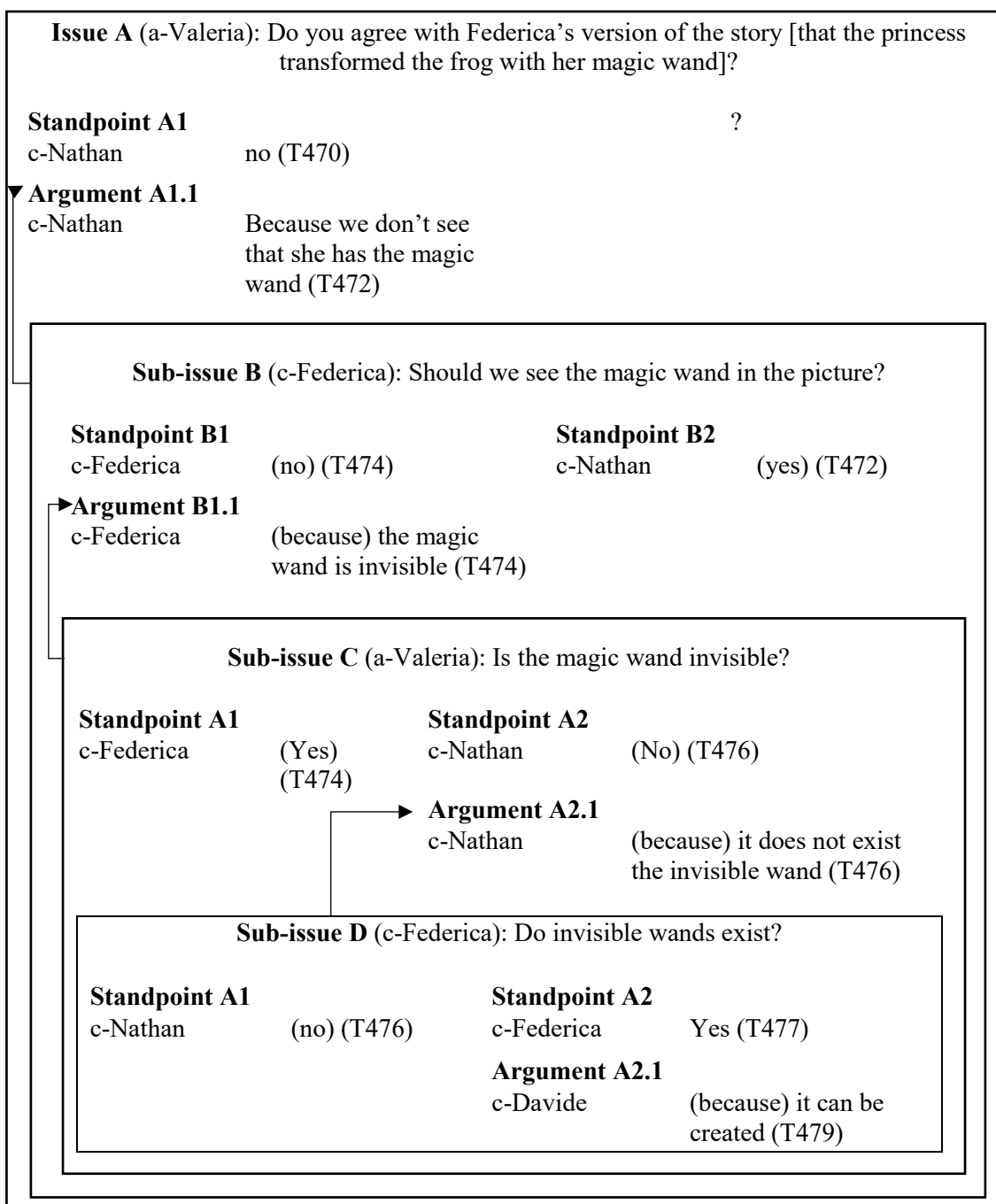


Figure 4.29: Analytic overview of “The wand”

At turn 469, the teacher asks the children whether they agree with the version of the story that Federica had just told. According to her, the princess made an enchantment to the frog, and with her magic wand she transformed it into a prince. Nathan, at turn 470, opposes to this version of the story, he says that he doesn't agree, which can be interpreted as the beginning of an argumentative discussion. Prompted by the teacher, he argues for why he does not believe that the princess has transformed the frog into a prince with her magic wand: he claims that in the vignettes we can't see that the princess has a magic wand. This is an argument from efficient cause, as it can be seen in the AMT reconstruction.

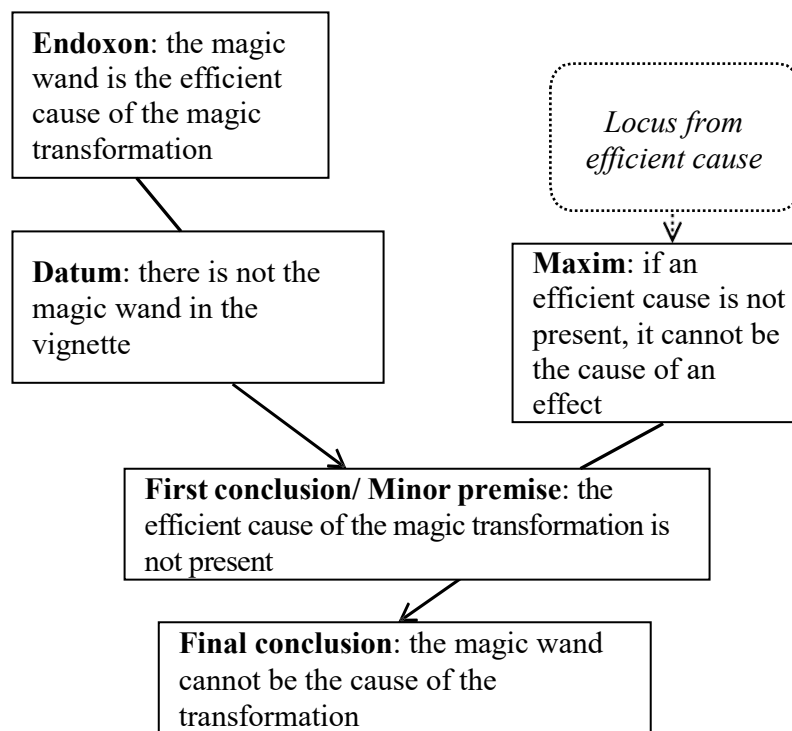


Figure 4.30: AMT reconstruction of the argument challenged in “The wand”

It is noteworthy here to say that the maxim in Nathan’s argument does not come from nowhere. The idea that if you don’t see an object in the vignette, you cannot tell that something related to that object happened is actually a rule that the teacher used with the children before in this episode. This consideration, which enriches our understanding of the examined interaction, is an example of how the knowledge of the context of argumentation is very important for its analysis (see chapter 2, section 2.2; chapter 3, section 3.1).

A subdiscussion is opened when, at turn 474, Federica replies that the wand is invisible, which is a rebuttal of the *datum* in Nathan’s argument. At this point, the teacher asks: “is it invisible [the wand]?” (turn 475), which in fact is calling into question the proposition by Federica (sub-issue C). Nathan enters this new subdiscussion, opened by the teacher,

by taking an opposing stand with respect to Federica (who claimed that the wand is invisible). Nathan argues that the wand is not invisible because it does not exist as an invisible wand (turn 476). Federica, again, opens a further subdiscussion about the existence of invisible wands (sub-issue D). Another child, Davide, supports Federica's claim, that there are invisible wands (they can be created – turn 479).

This last subdiscussion about the existence of invisible wands remains suspended. Although Federica and Davide have provided a justification for their sub-standpoint (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) proposing his version of the story (turn 480), thus conveying the idea that he does not agree with Federica's idea.

Although this example was presented here to highlight the fourth type of uptake of subdiscussions (the adult reacts to a child's subdiscussions by opening a new subdiscussion), this case also allows to make further reflections about the development of subdiscussions. If we consider the code of conduct by van Eemeren and Grootendorst (2004; cf. Chapter 2, subsection 2.1.1), the child has violated the *concluding rule*, stating that “conclusive defenses of standpoints may not lead to maintaining expressions of doubt concerning these standpoints” (ibidem). This leads to some considerations about the development of subdiscussions and, namely, about how it occurs that they are interrupted or abandoned.

Finally, this episode is also interesting because the shifts from one discussion to another are particularly evident: from whether Federica's reconstruction of the story was attainable the class moved to discuss about the existence of magic wands, which was somehow pertinent to the original issue. In this case it is relevant to note that the adult not only participates in the shifts, but she also contributed to it by opening a subdiscussion of her own.

4.3.2.5 Uptake 'other'

This last paragraph shortly addresses the three unclear cases that seemed not to pertain to one of the uptakes of subdiscussions that have been presented so far. In one episode, a child opens a subdiscussion to which the teacher at first seems to follow up: in particular, she utters “eh”, an Italian interjection that takes different meanings following the voice pitch. In this case the teacher is making explicit that she is listening and following the reasoning of the child who opened the subdiscussion, she seems interested and waiting for someone to pursue the idea. However, this doesn't happen because some children start talking simultaneously and the class is chaotic. The teacher, after calming the children, does not go back to the subdiscussion that was opened previously. At the limit, this could fall into the category “taking supporting stand”, but I was not fully convinced because the subdiscussion is not further developed.

A second episode concerns the teacher asking a child what she would do if she found a cougar on the desert island (cf. “The desert island” activity). Nathan reacted to this proposition of the teacher by replying (with a playful tone) that cougars are not dangerous, which technically raises a sub-issue targeting the teacher’s question (if the teacher’s question is interpreted by the child as an issue). The teacher takes this subdiscussion also in a playful way, and she replies to Nathan by telling him that she would bring a cougar on the subsequent day at the kindergarten. This type of reaction could be considered “ironic” and the subdiscussion, which sounded playful from the beginning, is treated like it was not a real subdiscussion. Hence, I annotated the uptake of this subdiscussion as ‘other’.

The last case consists again of a subdiscussion between Nathan and the teacher during “The Frog Prince” activity. Nathan opened a subdiscussion to challenge the teacher’s argument and the teacher reacted by reproaching him because, according to her, Nathan’s attitude was very spoiled. Hence, she clearly listened to the subdiscussion the child was opening but she avoids it by saying that she did not like Nathan’s behavior. I considered the possibility of the type of uptake “opening a new subdiscussion”, where the teacher tries to rediscuss how children should behave during the discussion. However, the subdiscussion that was opened by the child was not really developed, so the teacher’s reply to the subdiscussion ended with its avoidance.

I decided to report also these cases of subdiscussions to show that sometimes real-life data can be not always clear and easy to interpret.

After the observation of how adults can deal with children opening a subdiscussion and how the latter can unfold, it is the moment to examine how subdiscussions are concluded (RQ1c). Next subsection, then, turns to the last phase of the “life cycle”.

4.3.3 The conclusion of children’s subdiscussions

To study how children’s subdiscussions come to an end (RQ1c), the concluding stage of a critical discussion was considered (cf. van Eemeren and Grootendorst, 2004). In the annotation scheme, for each child-initiated subdiscussion it was initially verified whether the concluding stage (or some empirical counterpart)⁶¹ was present. Subsequently, it was observed whether, following the closure of the subdiscussion, there was a return to the main argumentation within which the subdiscussion occurred. This was considered with the aim to assess whether the subdiscussion contributed to the resolution of the main difference of opinion. According to pragma-dialectics, in fact, the resolution of a subdiscussion should allow the parties to return to the main argumentation once agreement on a proposition whose acceptance was first lacking is re-established (cf.

⁶¹ Once again, the model of critical discussion is a heuristic tool which is useful to have a guide to observe what is there in the real world. In real life argumentation it is unlikely to find an explicit concluding stage with formal closing formulas. Hence, what I looked for in my corpus of subdiscussions, apart from possible closing formulas, was glances between the interlocutors, any nodding or shaking head, and so on.

chapter 2, section 2.3). This suggests that subdiscussions should play a role in resolving the main discussion. Our analysis of the conclusion of subdiscussions seeks to enhance the understanding of this dynamics.

In the corpus, 21 out of 61 subdiscussions did not reach the concluding stage. Yet, seven of these cases correspond to the subdiscussions that did not develop in the first place, as they were not uptaken by anyone. This leaves 14 subdiscussions that have received a reply (meaning that they were, at first, somehow acknowledged), but remained unresolved. In most instances, this was due to the fact that the thread of the discussions was lost very quickly, because, for example, other children intervened in the activity with their comments, which were not argumentative and did not concern the ongoing argumentative discussion. This diverted everyone's attention (included the teacher's/educator's) from the subdiscussions to other events. This led to the abandonment of the subdiscussion. In a few cases, the subdiscussion initiated by the child was responded to by the adult but subsequently abandoned due to its playful nature (e.g., laughter from both the teacher and child after the teacher's response to the subdiscussion). Finally, as "The wand" example has shown (subsection 4.3.2.4), subdiscussions might not reach a conclusion because of the violation of the concluding rule of a critical discussion (van Eemeren & Grootendorst, 2004).

Turning to the subdiscussions that reached the concluding stage (n.40), as anticipated earlier in this section, our focus was on examining whether the interlocutors, after the closure of the subdiscussion, returned to the main discussion and the subsequent course of the latter.

Three main possible outcomes of subdiscussions were found. The first one includes subdiscussions that reached an end where the child who opened the subdiscussion did not "win" the subdiscussion; the interlocutors returned to the main argumentative discussion and the main standpoint is reaffirmed. In this case, it can be said that the subdiscussion has not produced a shift in the main discussion (type 1). The second type of conclusion concerns subdiscussions that reached an end where the child opening the subdiscussion "won" the subdiscussion; the interlocutors returned to the main discussion, and the main standpoint was abandoned in favor of the counter-standpoint. In this case, I annotated that the subdiscussion has produced a shift in the main discussion (type 2).

Lastly, in one case, the subdiscussion is concluded in favor of the child opening it, but the interlocutors did not return to the main discussion. This means that the subdiscussion did not have a consequence on the main argumentation. I annotated this case as subdiscussion that did not contribute to the resolution of the main discussion (type 3).

The following subsections provide examples to illustrate these different types of conclusions of children's subdiscussions.

4.3.3.1 Subdiscussions producing no shift of the main argumentation (type 1)

Example IX: "The art apron"

This episode occurs at the end of the activity “Stories and sequences”, which involved the group of younger children (3-4 years old) and the educator Mariagrazia. Some children are playing on their own, while Mariagrazia is tidying up the material used during the activity. In the following excerpt, the educator is proposing Samuele (4:6 yo) and Olivia (4:10) to paint some cardboard animals. These cardboard figures had been prepared some days before and some of them had already been partially painted.

Transcript:

{starts at 00:23:47:050}

1 MAR: samu?
Samu?

2 SAM: ((enters the room running))

3 MAR: NO (.) samu?
no, Samu ?

4 SAM: ((falls on the floor))

5 (0.48)

6 ((he crawls away and plays with a toy car))

7 MAR: samu? (--samuele?
Samu? Samuele?

8 (0.10)

9 SAM: eh?
huh?

10 (0.27)

11 MAR: vai a metterti il grembiule ché fi<<touching the cardboard
shape>niamo di colorare il tuo> squalo.
go put on your apron so we'll finish coloring your shark

12 SAM: ((looks at the cardboard shark))il mio SQUALo ma è già
colo[RATo]. ((keeps playing with the toy car))
my shark, but it is already colored.

13 MAR: [no (.)] dietro <<touching the cardboard
shape> vedi che qua non l'abbiamo> colorato <<all> dobbiamo
colorare dietro> vai a mettere il grembiule olivia?
no, the back, you see that we haven't colored it, we have to color the back, go put on your
apron. Olivia?

14 SAM: ((looks at the cardboard shark, appr. 1 sec))

15 MAR: vai a mettere il grembiule ché finiamo di colorare la tua
volpe.
go put on your apron so we'll finish coloring your fox

16 SAM: ((plays with the toy car, appr. 2 sec))

17 MAR: vai samu (.) vai a mettere il grembiule.
go samu, go put on your apron

18 (0.50)

19 SAM: ((noise of a chair falling))

20 (0.78)

21 ((he runs in the direction of his drawing apron))

{ends at 00:24:15:440}

The discussion taking place in this excerpt can be interpreted as follows:

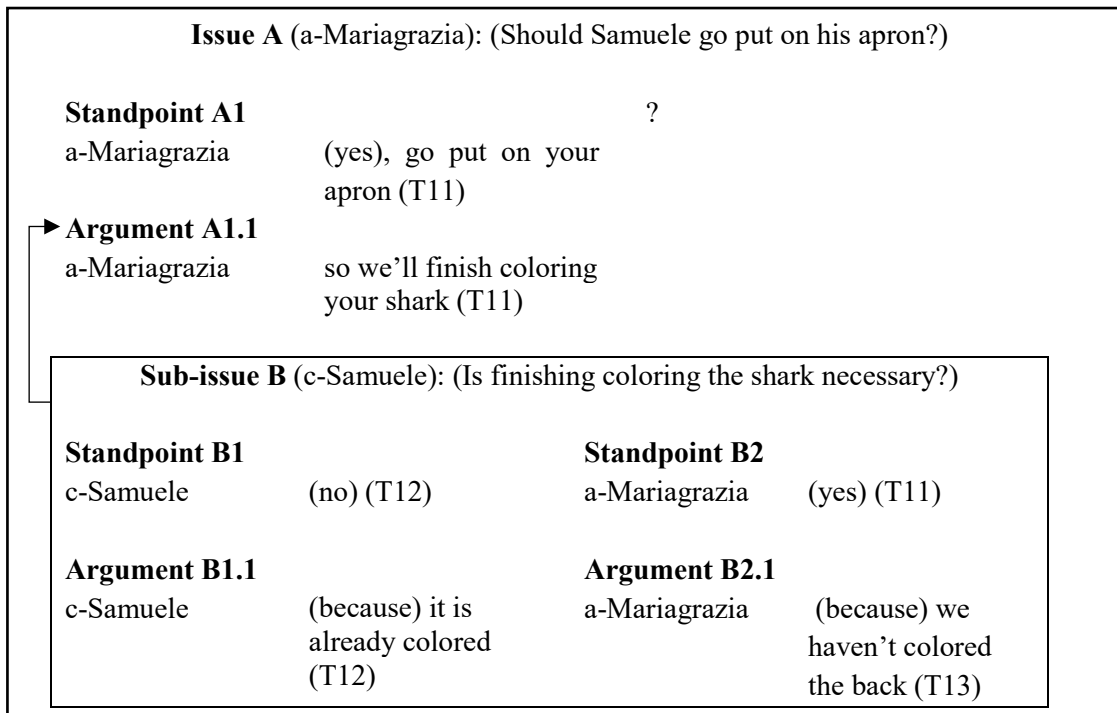


Figure 4.31: Analytic overview of “The art apron”

When the educator, at turn 11, gives Samuele the order of fetching and putting on the apron, she also gives an argument in support of her proposition (they need to finish coloring Samuele’s shark). By doing this, she implicitly opens an issue about whether Samuele should go put on his drawing apron (issue A). The child’s position on this issue is not expressed. However, his utterance, at turn 13, challenges Mariagrazia’s argument. Thanks to the AMT, it is possible to highlight the component of the argument that the child finds problematic (see figure 4.32). Samuele is criticizing whether it is really necessary to finish coloring the cardboard shark, namely the *endoxon* in the argument provided by his educator.

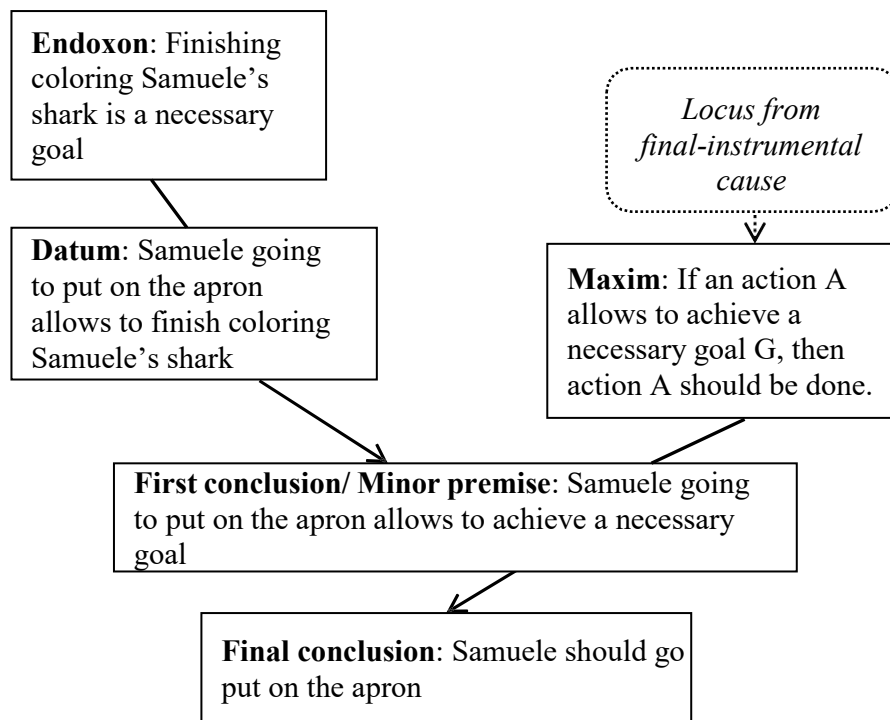


Figure 4.32: AMT of the argument challenged in “The drawing apron”

Samuele’s subdiscussion is opened through a counterargument (rebuttal of a premise) which supports the sub-standpoint “finishing coloring the shark is not necessary”, which opposes the sub-standpoint the educator implicitly has committed to. Samuele’s claim is that his shark is already colored (turn 13). The child’s perspective here is taking into consideration the fact that in the previous days the children had already painted some cardboard animal shapes, and Samuele in that occasion already painted his shark. In the transcript, it is even possible to remark that the child looks at his cardboard shark, which can be interpreted as he was making sure that his memories were true. If we put ourselves in the child’s shoes, his criticism sounds legit. The educator reacts to the subdiscussion by taking an opposing stand: she advances an argument in favor of her sub-standpoint “finishing coloring the shark is necessary”. According to Mariagrazia, the backside of Samuele’s cardboard shark is not colored yet (argument B2.1), thus finishing coloring the shark is necessary (standpoint B2), thus Samuele should go put on his apron (standpoint A1). It becomes then clear that the educator’s interpretation of the situation is different from that of the child: for the educator coloring the shark means painting frontside and backside, for the child if the shark is colored, even partially, it is already colored. After Mariagrazia advances her argument, she also calls another child, Olivia, with the same request of going putting on the apron. The discussion between Samuele and the educator seems suspended. Samuele seems to be more interested in playing with the toy car (turn 16). However, after a couple of seconds, the educator calls again Samuele and she repeats the main standpoint of the overarching discussion (“go put on your apron”,

turn 17). Samuele in the end will go put on his apron. I interpreted the absence of further explicit criticism by the child and the repetition of the main standpoint by the educator as if the subdiscussion opened by the child ended in favor of the adult, that in this case was playing the role of the antagonist in the subdiscussion. After the conclusion, the interlocutors returned to the main argumentative discussion and the subdiscussion has not changed the original standpoint, so there is no shift in the main discussion.

I noticed that this type of outcome (no shift in the main argumentation) could also apply for subdiscussions where children targeted the *issue*. In that case, if the subdiscussion opened by the child is ended in favor of the subdiscussion's antagonist, the subdiscussion did not produce a shift in the main *issue*, hence no shift in the main argumentation. Take as an instance "The brother" example (illustrated in subsection 4.3.1.4). After the child problematized in the *issue* proposed by the teacher the fact that she did not have a brother, the teacher took the opposing stand, claiming that Bianca had a brother, because in the activity she was supposed to pretend to be Tina (who in the story had a brother). After that, the teacher repeated the *issue* to Bianca, which the researcher interpreted as the return to the main discussion. The *issue* being unchanged, I annotated that the subdiscussion did not produce a shift in the main argumentative discussion. This corresponds to the first type of outcome of children's subdiscussions.

4.3.3.2 Subdiscussions producing a shift in the main discussion (type 2)

This subsection offers an example of the second type of outcome of children's subdiscussions, i.e., when the subdiscussion ends in favor of the child who opened it, and its conclusion leads to a shift of the standpoint of the main discussion.

Example X: "Animal sounds"

This episode is taken from the "Animals sounds" game (organised play). The teacher started a game where she made the children listen to a sound and they had to guess which was the animal that made that sound. After some rounds, she asked the children how they would explain in their words what an animal is to an alien who doesn't have any idea about what animals are. The children intervening in this excerpt are Nathan (6:4 yo) and Bianca (5:1 yo). The transcript begins with the teacher resuming the proposition of some children, namely that animals are things that can move.

Transcript:

{starts at 00:42:40.975}

1423 VAL: okay (.) quindi gli aniMALI [sono,]
 okay, so animals
1424 NAT: [haha]
1425 (0.02)
1426 VAL: si muovono.

1427 **They move**
 (0.66)
 1428 VAL: gli animali fanno,
 animals make
 1429 (1.09)
 1430 i?
 the?
 1431 NAT: Urlano.
 They shout
 1432 (0.28)
 1433 STRItola=
 They squee-
 1434 VAL: =magari STRIllano (.) vanno i versi (.) TUTTI?
 Perhaps they scream, they make sounds, all of them?
 1435 (1.11)
 1436 <<rhetorical question> (il) pesce?
 the fish?
 1437 (0.38)
 1438 NAT: no.
 no
 1439 BIA: no.
 no
 1440 (0.57)
 1441 VAL: lumaca?=
 Snail?
 1442 NAT: =sì::=
 yes
 1443 BIA: =fa le Bol[le.]
 It makes bubbles
 1444 NAT: [pe][sce sì.]
 Fish yes
 1445 VAL: [è vero.] (.) eh (.) magari [fanno anche loro]
 It's true, he, perhaps they also make
 1446 NAT: [il pesce sì:] (-
) fa ((he makes a funny face with his lips, imitating the
 fish))
 The fish yes, it makes ((imitation of the fish))
 1447 BIA: io mi-
 I..
 1448 NAT: ((makes a very soft noise with his lips))
 1449 VAL: okay.
 okay
 1450 NAT: ((keeps doing his imitation and making soft noise with the
 lips, appr. 2 sec))
 1451 VAL: (xxx) fa quel verso lì (.) allora si MUOVono (.) fanno i
 VERSI gli animali,
 it makes that sound, so they move, they make sounds animals
 1452 (0.2)
 1453 veDETE che state già dicenDO (.) cos'è un animale.
 You see that you are already saying what an animal is

{ends at 00:43:07.207}

Let us provide the reconstruction of this argumentative interaction through the analytic overview.

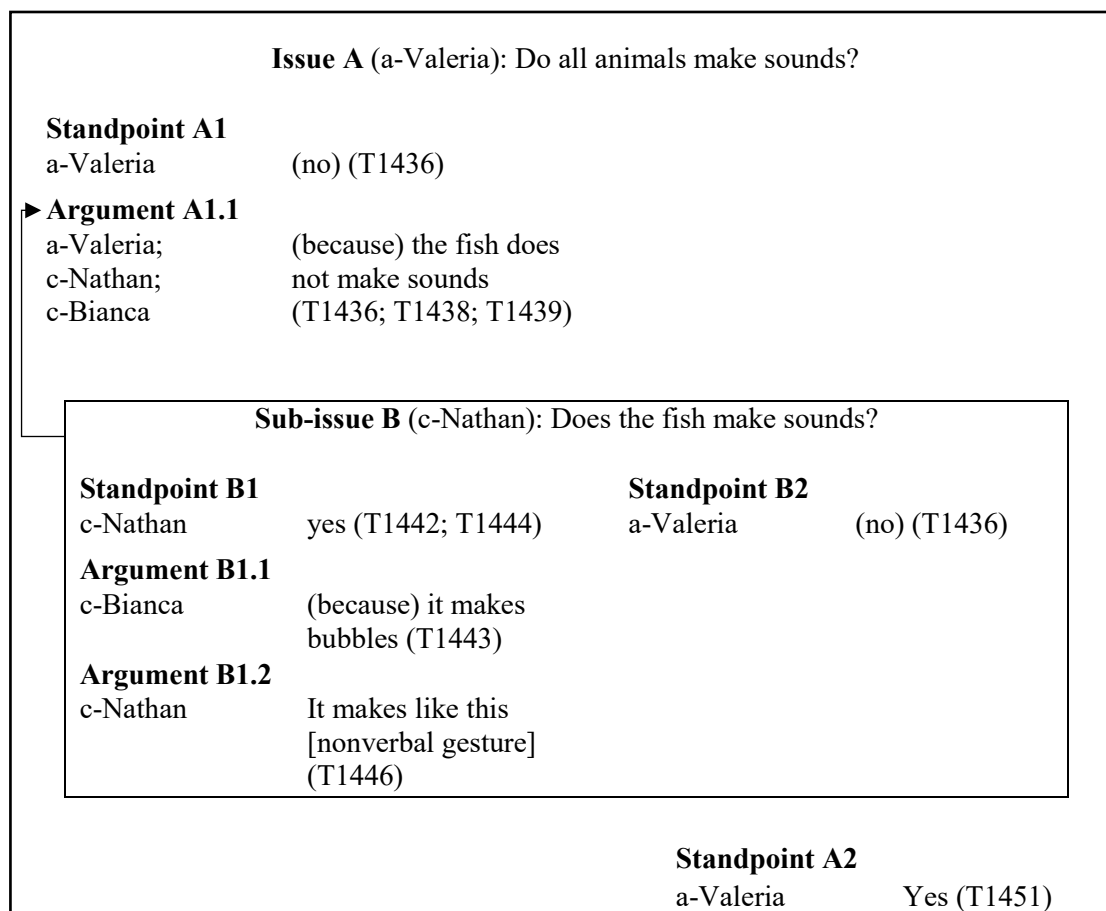


Figure 4.33: Analytic overview of “Animal noises”

At turn 1434, the teacher advances the idea that animals make sounds, then she asks whether all animals do. This question can be seen as an argumentative issue since, at turn 1436, the teacher introduces the example of an animal, the fish. She uses the intonation of a rhetorical question, suggesting that fish are an example of animals that do not make sounds. Hence, it can be presumed that the teacher takes a negative standpoint with respect to her own issue, and she argues for it by making the example of an animal that does not make sounds.

Some children (Nathan and Bianca), at first, immediately agree with this standpoint, by answering accordingly to the teacher’s rhetorical question (turn 1438 and 1439).

After some seconds, the teacher makes another example of an animal, presupposing it does not make sounds (the snail). Right away, the children seem to change their mind. Nathan at turn 1442 utters a long “yes”, and at turn 1444 he specifies “the fish yes”; so, it becomes clear that he is rectifying his position. In particular, as it can be seen in the AMT below, he is explicitly attacking the *datum* in the argumentative reasoning suggested by the teacher, thus marking the opening of a sub-issue on whether fish make sounds (sub-issue B).

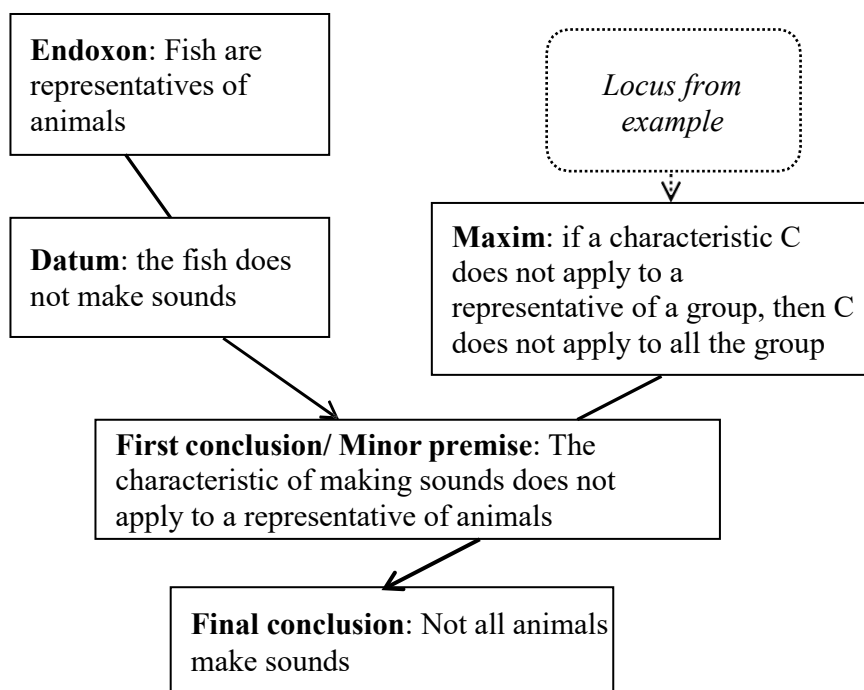


Figure 4.34: AMT of the argument challenged in “Animals noises”

Bianca, on her side, utters “it makes bubbles”, which also seems to refer to the fish and it can be interpreted as an argument in favor of the sub-standpoint “fish do make sounds” (standpoint B1). From the child’s point of view, there is a relation between making bubbles and making sounds. Nathan, in addition, starts imitating a fish with his lips, which appear to produce a very soft noise (almost inaudible). However, the imitation also serves the purpose of supporting the sub-standpoint that fish make sounds, which opposes the presumed sub-standpoint of the teacher (that fish do not make sounds). Valeria reacts by supporting the child’s criticism and then, she retracts her position. At turn 1451, she says “it [the fish] makes that sound”, which was interpreted by the researcher as the conclusion of the subdiscussion; then, the teacher returns to the main discussion as she mentions “they make sounds, animals”. This corresponds to the counter-standpoint of the main discussion (standpoint A2).

In this case, the subdiscussion opened by the children has ended and it has clearly led to a shift of the main standpoint. This denotes the second type of outcome of children’s subdiscussions on the main argumentation.

As for subdiscussions targeting *issues*, similarly to what was described for the first type of outcome, I found subdiscussions that, this time, ended in favor of the protagonist (the child who opened it) and that produced a shift in the main *issue*. An example of this is provided in the next paragraph.

Example XI: “Pikachu”

This episode is taken from the “Moral dilemma (I)” activity, and it takes place slightly after the teacher had told the story of Luca, Valentina, Tina and Tony (Tony has seen Luca stealing the soft toy of Valentina; he confidentially talks about it to his sister Tina and asks for her advice on what to do). In the following transcript, the researcher (myself) intervened in the discussion, trying to propose the moral dilemma with more realistic characters, namely she mentions some children of the kindergarten. Apart from the researcher, also Nathan (6:4 yo), Davide (6:6 yo), Christian (5:11 yo) and Valeria (teacher) are involved in this excerpt.

Transcript:

{starts at 00:17:56.193}

473 RES: voi siete amici giusto?
you two are friends, right?

474 CHR: sì.
yes.

475 RES: allora tu pensa (-) facCIAMO una situazione simile.
So, think... let us create a similar situation

476 (.) tu pensa se il nathan,
think what if Nathan

477 (0.26)

478 ruba (.) il pikachu (-) al davide.
stole Davide's pikachu

479 (2.55)

480 NAT: ma io non lo farei MAI (.) è il mio miglio[re amico.]
but I would never do that... he is my best friend

481 DAV: [(tanto due)] ce le ho
anyway I have two

482 (0.49)

483 VAL: ce ne ha [due.]
he's got two

484 DAV: [ce (l'ho)] due
I've got two

485 (0.15)

486 RES: [(laughs, appr. 2 sec)]

487 VAL: [e quindi,]
and so

488 ((laughs, appr. 1 sec))

489 per lui non è un problema (.) <<laughing> [per il davide.]>
for him it isn't a problem, for Davide

490 DAV: [(quindi) ce ne
ho] un altro di riser[va]
so I have a spare one

491 VAL: per il davide non è un problema (.) ma non ti
dispiacerebbe?
for Davide it is not a problem, but wouldn't you mind?

492 (0.56)

493 ma il problema forse non è tuo ma lui che ha=tu che hai
visto sta scena.
but the problem maybe isn't yours, but his, who has, you have seen this scene

{ends at 00:18:27.488}

The discussion is reconstructed in the following figure through the adapted analytic overview.

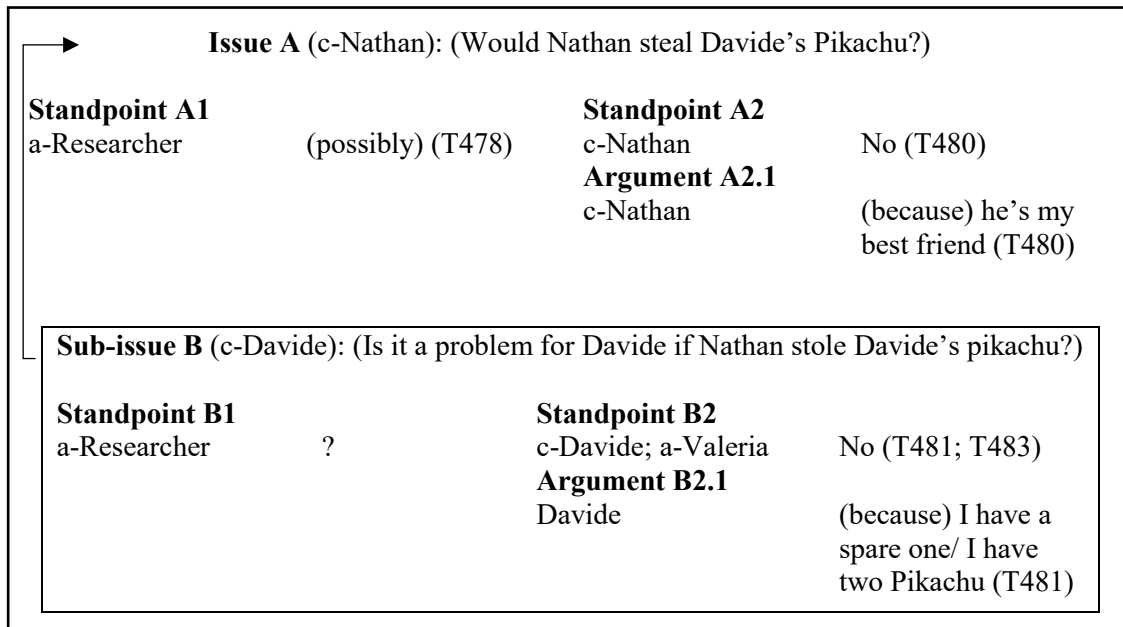


Figure 4.35: Analytic overview of the "Pikachu" example

The proposition of the researcher, which was not meant to be argumentative, is challenged by Nathan, who thus opens a discussion about whether Nathan would steal Davide's Pikachu⁶². The child also advances an argument to support his standpoint (he would never do it, because Davide is his best friend, which implies that being best friends is a condition which does not enable the possibility of stealing). Immediately after Nathan's intervention, also Davide problematizes something: however, he is not challenging some aspect of the argument given by Nathan (cf. the AMT reconstruction in figure 4.36), he is putting into question whether the whole issue would actually be an issue to him. Since he has two Pikachu soft toys, it wouldn't be a problem if Nathan stole one. Thanks to the help of the teacher, who knows very well the soft toys owned by the children, Davide expresses his position and argues for it.

⁶² NB: Pikachu is a character from the Pokémon franchise. In the excerpt it is made reference to the Pikachu soft toy that Davide owns.

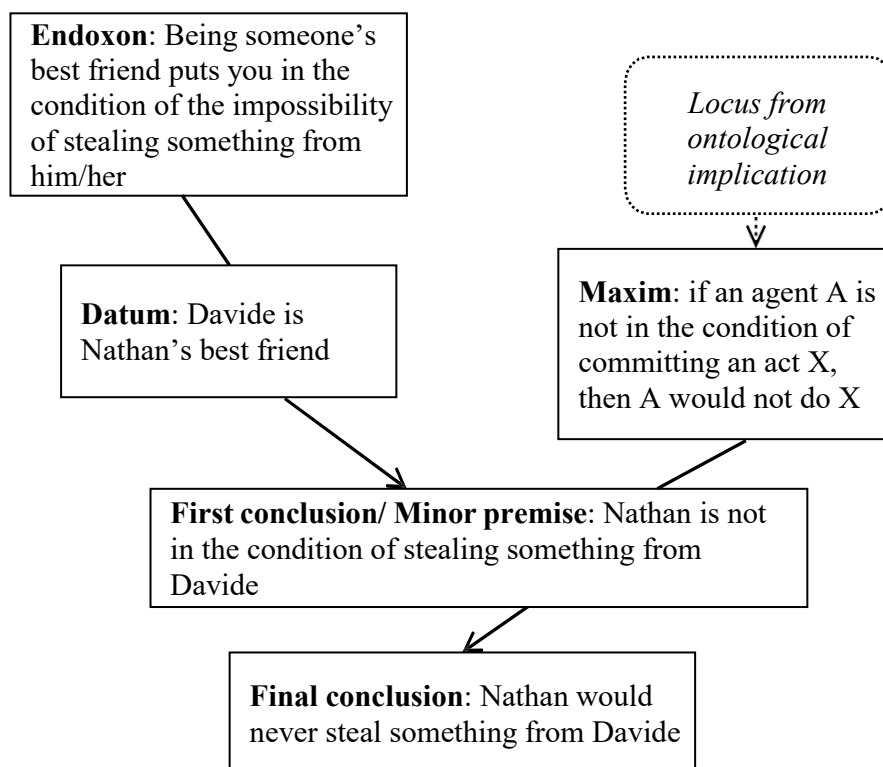


Figure 4.36: AMT of the argument in “Pikachu”

The researcher (myself) reacts to this with a good-natured laugh (turn 486). In that moment, in fact, I was surprised because I did not expect the children to question my proposition (which was exactly the phenomenon I was interested in for this research). I thought I was advancing something coherent and meaningful for the children, because I knew about Davide owning a Pikachu soft toy, I knew that the children of the kindergarten were friends (I also verified this information at turn 473), but when the children put my proposition into question, I realized that, apparently, I had taken something for granted. Nathan, on the one side, feeling accused of stealing, tries to defend himself. Davide, on the other side, calls into question the whole *issue* that just came out.

At this point, the teacher also intervenes in the interaction. Her reaction is to support Davide’s subdiscussion. At turn 491 she even claims explicitly the standpoint that Davide had advanced implicitly, that it is not a problem for him if Nathan stole his Pikachu. I interpreted this as the conclusion of the subdiscussion, in favor of the child who opened it. Hence, after the subdiscussion my idea of Nathan stealing Davide’s Pikachu seemed to lose any relevance, like it was no longer important to go back to that *issue*. However, the teacher (who probably understood the good nature of my proposition) reformulates the issue in a different way: at turn 493 she summons in the discussion another child (Christian) and she claims that maybe the issue was not an issue for Davide (who,

hypothetically, lost the soft toy) but for Christian (who supposedly has seen Nathan stealing Davide's Pikachu).

Thus, in this case it seemed that the subdiscussion opened by Davide, after its conclusion, has led to a shift in the main discussion (type 2), because the teacher, who understood why the proposition of the researcher was not accepted in that form by the children, smartly specified the issue in a way that could make sense for the children (and for the objectives of the ongoing activity: making the children discuss about moral problems and how to deal with them).

Returning to the possible outcomes of children's subdiscussions, this example illustrated the case of a subdiscussion ended in favor of its protagonist and that has led to a shift in the main *issue*. These instances were annotated as following type of outcome 2, i.e., subdiscussions producing a shift in the main discussion.

4.3.3.3 Subdiscussions that did not contribute to the resolution of the main discussion (type 3)

This subsection presents the case of a subdiscussion that was ended in favor of the protagonist but did not have a consequence on the main argumentation as the participants did not return to the main discussion.

Example XII: "The wind"

This excerpt is taken from the "Superheroes" video recording. The activity had not yet been introduced. The teacher had taken attendance and she had been discussing with the class about what day it was. The children, with some help, said that it was the 1st day of the month; so, the teacher is hanging up the number 1 on the wire where they usually put the numbers of the daily date. The excerpt starts with Davide (6:6 yo) asking a question to the teacher. Other participants in this interaction are Bianca (5:1 yo), Lucas (4:1 yo) and Zoe (4:1 yo).

Transcript:

{starts at 00:05:22.829}

- 1 DAV: oggi andiamo in giardino vale?
today are we going outside in the garden, vale?
- 2 VAL: <<hanging a number with a clothespin> non facciamo adesso le
domande vediamo come va la mattinata se fate i bravi>
let's not ask questions now let's see how the morning goes, if you are good
(0.14)
- 3
- 4 a parte che oggi c'è un po' di vento; (-) ma proprio poco;
(---) e se vi mando fuori secondo me vi ritrovo (-) su
qualche tetto di qualche casa quindi bisogna fare un po' di
attenzione

besides today there is a bit of wind, but just a bit, and if I let you go outside, I think I'll find you on some roof of some house, so we must be careful

5 ((a magnet falls from the wall and makes noise; zoe and lucas pick the magnet and start playing))

6 VAL: eh adesso vediamo
so now we'll see

7 (0.02)

8 BIA: [(unintelligible, appr. 2 sec)]

9 DAV: [(unintelligible, appr. 2 sec)]

10 BIA: <<:-> quando ero camminata non ero>
when I was walked I wasn't

11 (0.04)

12 VAL: no quando ero camminata quando? (---) AVEVO (--) camminato.
not when I was walked when... I was... walking

13 (0.58)

14 ((zoe and lucas make noise playing together with the magnets near the board))

15 VAL: ti ha portato via (.) il vento?
did it move you away the wind?

16 ti spostava?
did it move you?

17 BIA: ((shakes her head))

18 VAL: no (.) meno male.
No, thanks goodness

19 DAV: quando (.) (io stavo) camminando,
when (.) (I was) walking

20 (0.19)

21 <<all> (c'era tantissimo) vento> (.) ma non mi spostava.
there was so much wind, but it didn't move me

22 (0.02)

23 VAL: (ah:) (.) ma allora siete=siete dei forZUti che non vi ha spostato.
ahn... but then you're=you're strong people as it didn't move you

24 (0.22)

25 ((zoe and lucas keep playing together with the magnets))

26 VAL: <<opening her hand towards lucas> grazie lucas.>
thanks lucas

27 LUC: ((runs towards his chair))

28 VAL: allora;
so

29 (0.09)

30 sss
psss

31 (0.63)

32 il mese che è finito ieri era il mese di?
the month that ended yesterday was the month of?

33 (0.38)

34 DAV: <<whispering> gennaio.>
January

{ends at 00:06:15.765}

The argumentative exchange is represented below.

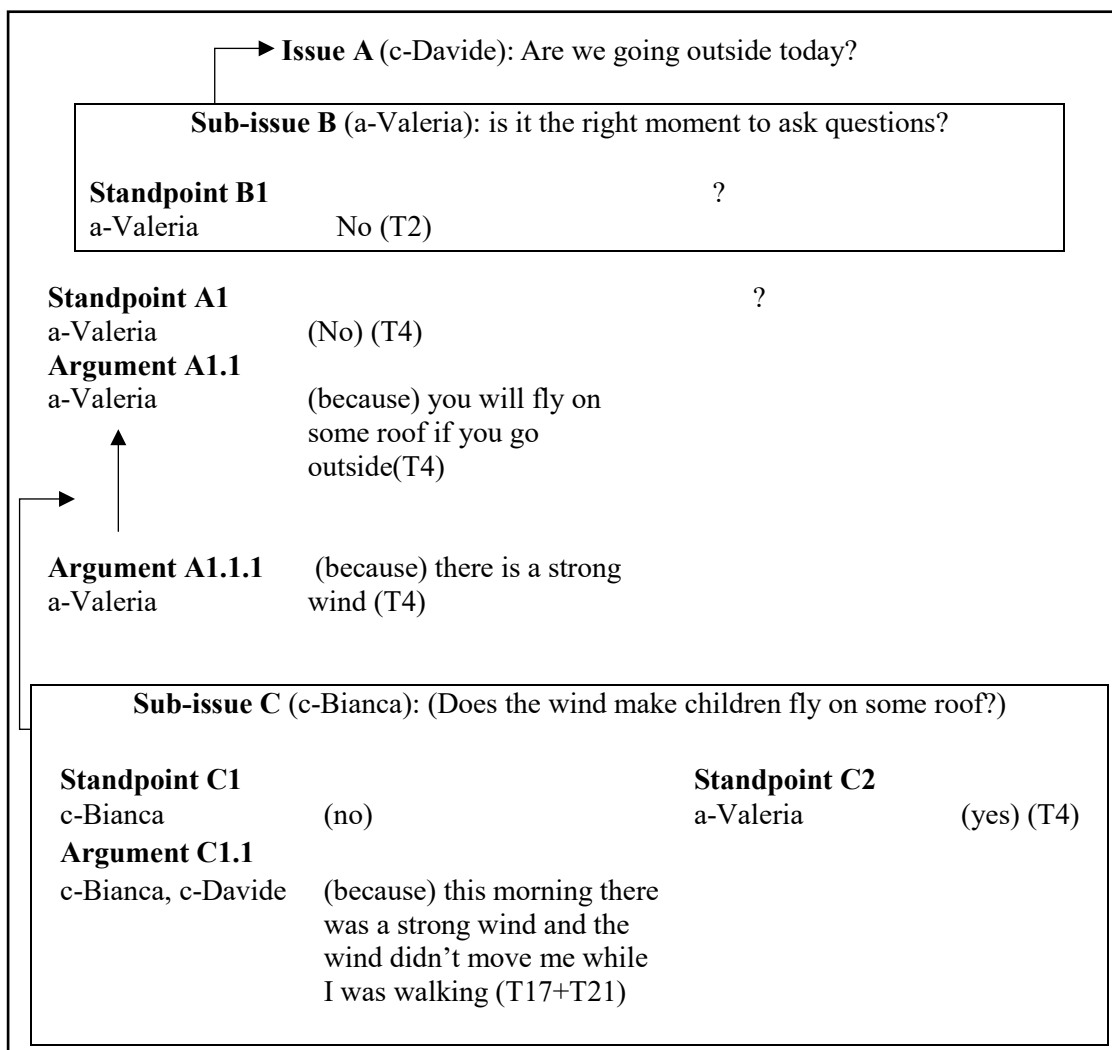


Figure 4.37: Analytic overview of “The wind”

Davide’s question at the beginning of the episode becomes an argumentative issue when the teacher, Valeria, provides arguments for supporting her position. Note that, at the beginning, the teacher seemed not willing to take the issue into consideration, she even opens a sub-issue about whether it was the right time for the children to ask questions, but this (procedural) subdiscussion⁶³ does not go further. Then, Valeria decides to go back to Davide’s question, and she advances her standpoint. The children aren’t going to play outside (standpoint A1), because they will end up on some roof if they do (argument

⁶³ “Procedural” in this case refers to the pragma-dialectical meaning of “procedural premise”: the teacher is putting into question some aspect that is not content-related but regards the procedure of the discussion.

A1.1), because there is a strong wind (argument A1.1.1). The reconstruction of the teacher’s argumentation is hereunder.

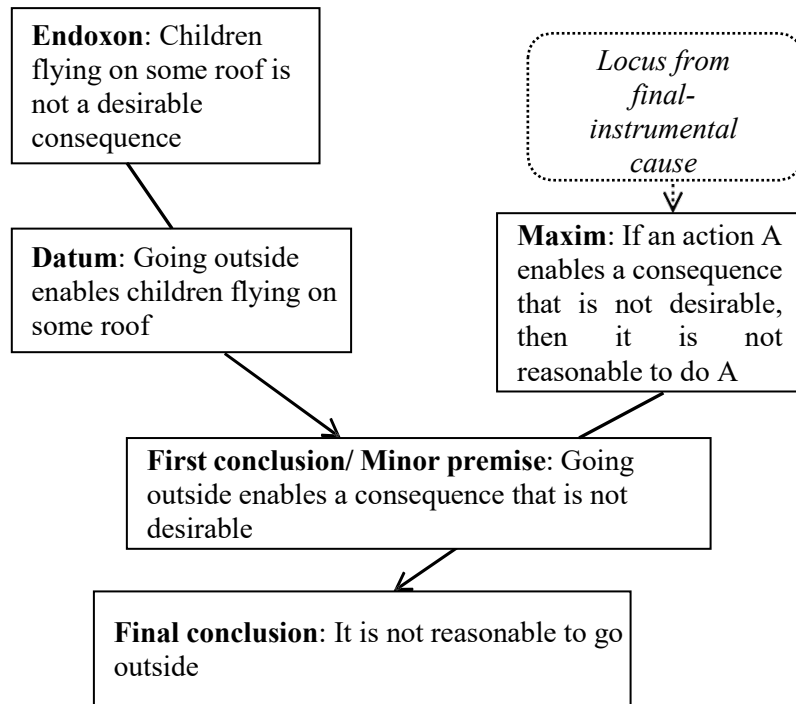


Figure 4.38: AMT reconstruction of argument A1.1 in “The wind”

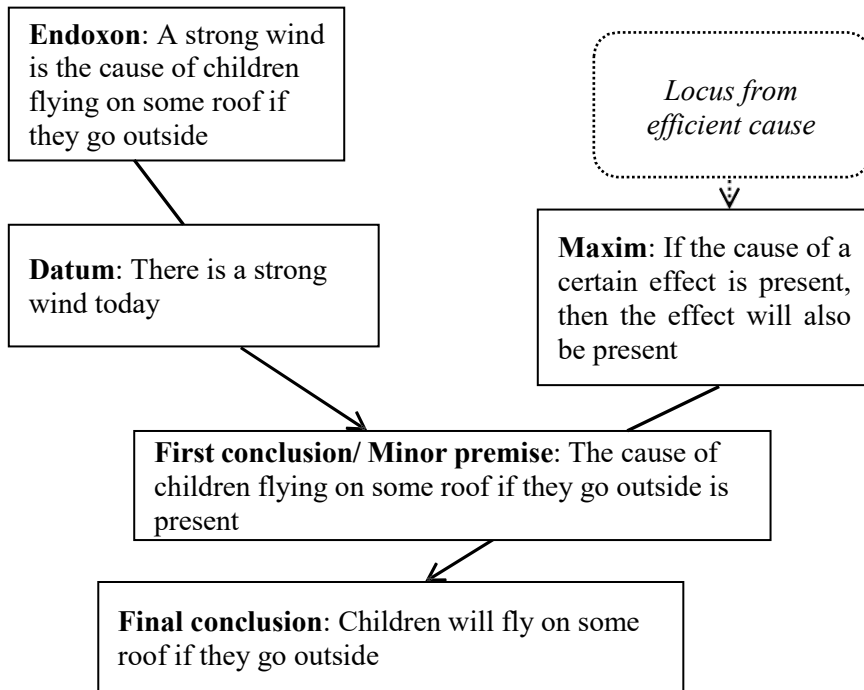


Figure 4.39: AMT reconstruction of argument A1.1.1 in “The wind”

At turn 10, a child, Bianca, utters something that sounds as the beginning of a counterargument. The teacher interrupts her to correct the grammar of her sentence, but then she helps her formulate the challenge (turns 15 and 17). So, at her own expense, the teacher is supporting the emergence of a subdiscussion. At turn 19 and 21, Davide joins Bianca's challenge, and he formulates the counterargument more clearly. Their counterargument is that the wind did not move them when they were walking outside earlier in the morning, which is not attacking something in the inference between argument A1.1 and standpoint A1 (see the first AMT reconstruction in figure 4.38), but it is attacking the justifying force between sub-argument A1.1.1 and argument A1.1. This counterargument thus is an undercutter (in the analytic overview this is indicated by the arrow of the subdiscussion B targeting the arrow representing the inference from sub-argument A1.1.1 and argument A1.1).

The children are calling into question the *endoxon* of the teacher's sub-argument (see the second AMT reconstruction, figure 4.39) and they are opening a sub-issue about whether the wind makes children fly on roofs.

The teacher acknowledges this subdiscussion, and she seems to accept that the wind does not make children fly on roofs ("ahn...", turn 23). Yet, instead of giving in and ultimately accepting that the children can go outside to play, thus returning to the main discussion, she comes up with a new proposition ("then you are strong people", turn 23). This utterance seems to indicate that there is another reason why "the children were not moved when they walked in the strong wind". This concession by the teacher shifts the focus of the discussion, the children seem satisfied with being called "strong people", they smile, and they seem to forget the main discussion about going outside. Hence, the participants of the discussion do not return the main argumentative discussion. The teacher goes on with the activity she plans to do for the day, which could suggest that she strategically shifted the attention after the subdiscussion in order to pursue her goal of presenting the activity.

This example illustrated a further possibility of how children's subdiscussions came to end in the corpus analyzed. Arguably, this type of outcome can be considered fallacious. In fact, from an ideal point of view, subdiscussions should follow the same rules of conduct of the main-level discussion (van Eemeren and Grootendorst, 2004). In this specific case, the teacher's move seems to break the *language use* rule of a critical discussion: "Discussants may not use any formulations that are insufficiently clear or confusingly ambiguous, and they may not deliberately misinterpret the other party's formulations" (van Eemeren and Grootendorst, 2004: 195). The teacher's formulation is ambiguous, as she seems to make a conclusion (that the children are strong) that is not really the conclusion of the children's subdiscussion (it is not true that the wind will make children fly over roofs). This ambiguous formulation marks the end of the subdiscussion in a convenient way for the teacher and the main discussion is left suspended.

As already remarked by van Eemeren (2018), it is clear that empirical instances can deviate from ideal models.

The attention, in this example, is not to be directed towards the adherence of ideal rules, but rather towards being able to describe what has happened that made a subdiscussion's conclusion ineffective on the main discussion that it was supposed to clarify.

As in many other cases the teacher followed up the children's subdiscussions, I thought about the possible reasons why she avoided telling the children that they could go outside later in the morning. It could be, for example, that it was just the beginning of the morning, and she hadn't introduced the activity yet, so the teacher did not want the children to be distracted by the idea of going outside. Nonetheless, it is noteworthy to remark that the violation of a rule in the conclusion of the subdiscussion led to the abandonment of the main discussion.

These reflections about the effect of the conclusion of a subdiscussion become more significant when considering the implications of children's subdiscussions on the interaction in which they emerge on the longer term.

This leads us to the following section which addresses the second research focus of this dissertation.

4.4 Subdiscussions and their consequences on the interaction

The second research question of this project concerns the consequence of the occurrence of a subdiscussion on the progression of the interaction (RQ2 – cf. chapter 2, section 2.6). This aims at exploring whether and how children's argumentative contributions through the opening of a subdiscussion shape somehow the interaction in which they participate. As outlined in chapter 2 (section 2.5), this work considers an adapted version of a design approach to argumentation (cf. Jackson, 2015; Jackson & Aakhus, 2014) and it proposes to conceive subdiscussions as unintended consequences of children-adult argumentative interactions, when the interaction is managed and led by the adult. Being the organizer of the activities at the kindergarten, the teacher (or the educator in her behalf) normally has in mind an idea of the agenda of the activities, she gives the children instructions, she proposes *issues* and/or she advances arguments supporting standpoints. On the other side, children participate in the interaction according to the interpretation and the meaning they make of it (of the issues, standpoints, arguments and so on), which may differ from the interpretation and meaning of the "adult-organizer". Notably, the fact that a child is opening a subdiscussion signals that a misalignment has happened and, at the same time, presents an opportunity for realignment. This can lead to the following questions: first, how do adults deal with the emergence of a subdiscussion by a child? Second, what happens in the interaction after the occurrence of a subdiscussion opened by a child? Do children's subdiscussions have a consequence on the interaction in which they emerge? The analysis of the "life cycle" of a child's subdiscussion has already provided some answers. In subsection 4.3.2, which examined how children's subdiscussions could develop, it was found that, sometimes, adults do not take up 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. This implies that, in certain cases, children open subdiscussions which are left unattended. However, the corpus revealed a majority of instances where adults do uptake children's subdiscussions in different ways: a) by taking an opposing stand (cf. the "art apron" example, subsection 4.3.2.1); b) by taking a supporting stand (cf. the "good guy or bad guy" example, subsection 4.3.2.2); c) by taking no stand (cf. the "rudefulness" example, subsection 4.3.2.3); d) by opening a new subdiscussion ("the wand" example, subsection 4.3.2.4).

Subsection 4.3.3 concentrated on the subdiscussions that were uptaken by the adult and investigated their conclusion, in order to understand how the realignment was established. It was found that in most cases subdiscussions came to a conclusion which contributed to the overarching discussion (either producing or not producing a shift in the main discussion).

However, it was not observed whether the opening of a subdiscussion changed something at the level of the organization of the whole interaction, namely whether children's subdiscussions have a potential to shape and influence the direction of a discourse.

This can inform about the flexibility of the "design" of a discourse, and about how children's argumentative contributions play an active role in interaction.

To address RQ2, the analysis focused on all the subdiscussions that were uptaken in the corpus⁶⁴ and it was examined whether, after the occurrence of a subdiscussion, any traces of the subdiscussion were retrievable in the subsequent interactions.

Numerous instances within the corpus revealed the absence of residual traces of subdiscussions following their conclusion. In such cases, subdiscussions resembled parenthetical elements, and their influence on the interaction remained imperceptible. The subsequent subsection provides a concrete illustration of this occurrence.

4.4.1 Subdiscussions as parentheses

Example XIII: "The swimming suit"

This episode is taken from the activity "The desert island" and it occurs after the "Hot and cold" example described in subsection 4.3.2.1. As a reminder, in the activity children were asked to choose an object they would bring to a desert island. The idea of bringing a swimming suit had just been advanced by some children. The participants of the following transcript are Valeria (teacher), Davide (6:6), Nathan (6:4) and Federica (5:8).

Transcript:

{starts at 00:07:00.065}

⁶⁴ Subdiscussions that might have not fully developed were also included, because I was interested in exploring whether the simple raise of a *sub-issue*, acknowledged by some interlocutor, could also somehow impact the interaction.

184 VAL: [allora io so= (xxx xxx xxx) scusate adesso mi (faccio
(xxx)]
Then I am, excuse me, now I'll make myself

185 DAV: [(unintelligible, appr. 3 sec)]

186 VAL: io sono pronta per andare su un'isola ((lifts up her t-
shirt))
I am ready to go to an island
(0.17)

187 NAT: perché?
Why?

189 VAL: <<still showing the swimming suit> eh perché ho su il
costume ((smiles))>
Well because I am wearing the swimming suit
(0.47)

190 NAT: no È un costume da bagno.
It's not a swimming suit

191 VAL: eh.
yes

192 NAT: non È quello.
It's not that

193 VAL: e che costume intendi tu?
And which swimming suit do you mean?
(0.62)

194 NAT: i costumi (delle) piscine che puoi tuffarti=
The swimming suits of swimming pools that you can dive
=e questo qua è un costume delle piscine
And this one is a swimming suit of the swimming pools

195 NAT: ((looks carefully at the teacher, appr. 1 sec))

196 VAL: ho messo=giuro che questo è un costume da pisci[na]
I put, I swear that this is a swimming suit for the pool
[ade]sso no

200 NAT: andiamo alla piscina?
Now we are going to the pool?
(0.02)

201 VAL: eh ma io son già pronta perché lo sapevo mi ero già
preparata per andare (.) sull'isola
Eh but I am ready because I knew it, I had already got myself ready to go to the island
(0.47)

202 NAT: voglio andare (xxx)
I want to go
(0.43)

203 VAL: tu cosa porti [federica]?
What are you bringing federica?

{ends at 00:07:31.057}

Figure 4.22 shows the discussion by means of the analytic overview.

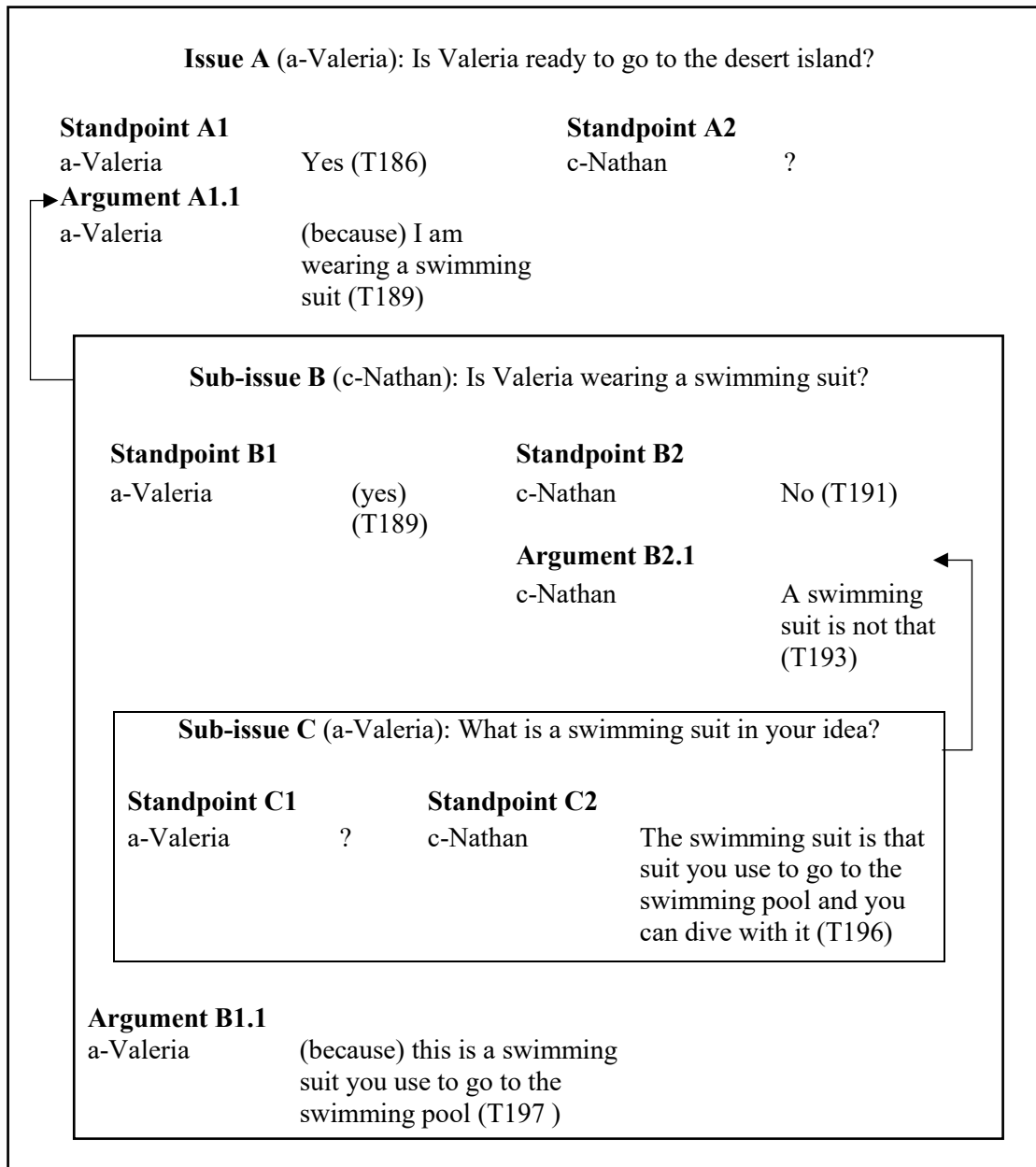


Figure 4.40: Analytic overview of “The swimming suit”

After some children proposed the swimming suit as the object they would bring to the desert island, the teacher, with a joking attitude, utters that she is ready to go to the island. This utterance could be considered a standpoint as Nathan casts doubt about it (turn 188). The teacher, then, gives her argument for being ready to go to the island (turn 189): she is wearing a swimming suit under her t-shirt (and the children had just said that if they were to go to a desert island, they would bring a swimming suit with them). When the teacher shows her swimming suit (turn 186), Nathan criticizes whether that piece of cloth is actually a swimming suit (turn 191), thus opening a subdiscussion

problematizing something in the adult’s utterance, in particular the *datum* (see the AMT below)⁶⁵.

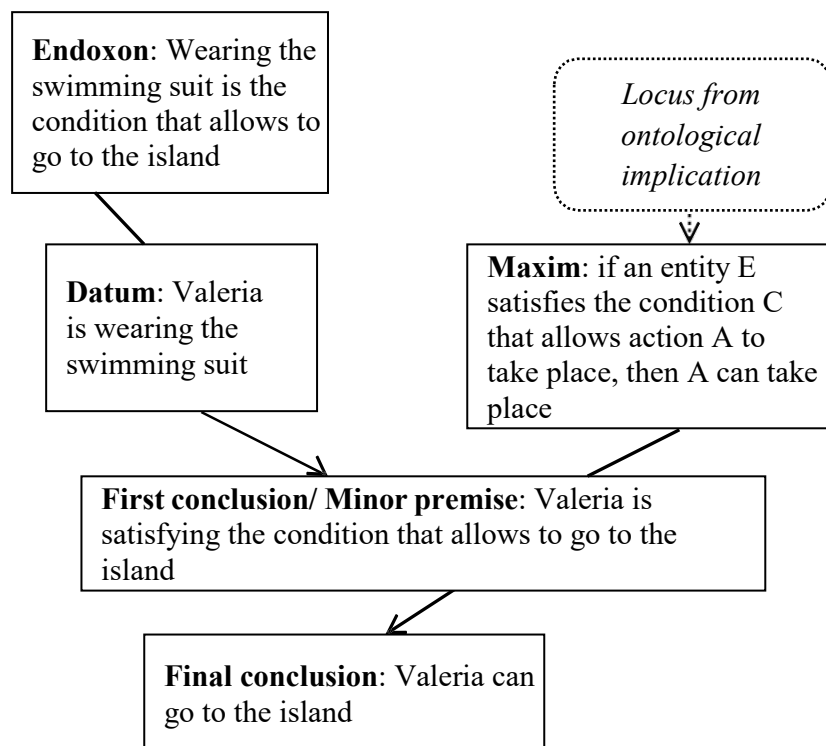


Figure 4.41: AMT reconstruction of the argument challenged in “The swimming suit”

According to the child, that is not a swimming suit. The teacher uptakes the child’s challenge by opening a new subdiscussion. She seems not to understand the child’s criticism, hence she asks him to clarify his definition of swimming suit in a new subdiscussion (sub-issue C). The definition given by the child at turn 196 (the swimming suit is the one you use at the swimming pool) seems to be shared by the teacher, who goes back to the subdiscussion about sub-issue B (Is Valeria wearing a swimming suit?) and uses this shared starting point in her argument B1.1 to support the claim that she is indeed wearing a swimming suit.

In this example, the movement from discussion to subdiscussion and back to main discussion is particularly evident. The subdiscussion about sub-issue B does not seem to be immediately resolved, since at turn 198 there is a silent moment where Nathan stares carefully at the teacher and her swimming suit. Valeria, then, she returns to the previous issues, adding a very strong commitment (she swears that what she is wearing is a swimming suit, turn 199); and, finally, she repeats the main standpoint, that she is ready to go the island (turn 202), as if she was giving closure to the main discussion. This seems

⁶⁵ The swimming suit that the teacher shows was black and by looking at it from a certain distance it was a bit difficult to see that the type of fabric was the one typical of a swimming suit.

to convince the child since he stops his criticism and the teacher, after that, goes on with the activity by asking another child what she would bring on the desert island.

After the termination of the subdiscussion, the interaction goes on: the teacher keeps guiding the discussion where children are expected to choose an object they would bring to the desert island and justify their choice. The subdiscussion concerning the swimming suit has not left traces in the continuation of the interaction. The subdiscussion was a parenthesis that contributed to the resolution of the main discussion but did not have a consequence on the longer term (the continuation of the activity). This result reminds of the idea of subdiscussion as it is conceived in the pragma-dialectical theory of argumentation (cf. Chapter 2.3.1): the subdiscussion allows the parties to reestablish agreement on a part of the argumentation that was not previously shared. After its conclusion, the discussants can go back to the main discussion. From my adapted design perspective, the subdiscussion has not led to any significant deviation from the original pre-designed interaction.

I found that most subdiscussions in the corpus (51 out of 61) had with this type of behavior. Also in “Hot and cold” (example V, subsection 4.3.2.1), the subdiscussion concerning the weather on the desert island has not left visible trace, which means, for example, that the choice of objects in the rest of the interaction does not take any longer into consideration whether it was cold or whether it was hot. In “animal sounds” (example X, subsection 4.3.3.2), the subdiscussion about fish is never mentioned in the prosecution of the interaction where children are defining what animals are.

4.4.2 Subdiscussions integrated in the course of the interaction

In the corpus, I also identified instances where the subdiscussion left some traces in the following of the interaction. The trace could be of different kind: one case was when a subdiscussion, after its conclusion, was recalled in the interaction. This happened, for instance, for the “Good guy or bad guy” case (Example VI, section 4.3.2.2). Nathan opened a subdiscussion that recalled into question whether the act of stealing always defined someone as a bad person, by suggesting the example of a person that steals but the stealing has a higher positive goal. The subdiscussion ended in favor of Nathan (who initiated it) and it produced a shift in the main standpoint of the main discussion (the participants of the discussion appeared to accept the possibility that the character who stole in the story was not a bad person). After the occurrence of the subdiscussion, the teacher went on with the activity, asking the children for further reflections about the short story they had been told. Some minutes later, the teacher asks the children whether it could be a reasonable move to go and talk to Luca (the character who stole) *if they had the doubt that he might have stolen not for a negative purpose*. The doubt that the teacher is referring to is arguably the fruit of the subdiscussion that was opened previously by Nathan’s criticism. Hence, in this case I considered that the child’s subdiscussion was integrated in the continuation of the interaction.

A similar example of a subdiscussion that, after its occurrence and after contributing to the resolution of the main discussion, was integrated in the interaction is presented in the following paragraph:

Example XIV: “Sharks”

This example is taken from “The desert island” activity. The underlying task (and *issue*) is which object the children would bring to a desert island. In the excerpt, Nathan (6:4 yo) raises the issue about how the children could get to the desert island. After some turns, Gaia (4:6) advances that she would bring a scuba mask to go to the desert island. Also Alex (5:2 yo), Davide (6:6 yo) and the teacher intervene in the interaction.

Transcript:

{starts at 00:13:35.737}

382 NAT: come facciamo a arrivare lì (se c'è) l'acqua?
 How do we get there if there is water?
383 (0.60)
384 VAL: ahn (.) e quindi che oggetto prenderesti?
 mh... And so which object would you bring?
385 (1.24)
386 NAT: eh:m mi sa che:
 uhm I think that
387 (0.31)
388 GAI: la MA[(schera)]
 the mask
389 NAT: [ci met]to un anno a nuotare fino a lì
 it will take me one year to get there by swimming
390 (0.09)
391 VAL: <<to gaia> cosa prenderesti?>
 what would you bring?
392 (0.08)
393 DAV: [oh no: (.) (unintelligible, appr. 2 sec)]
 oh no... (unintelligible)
394 GAI: [(unintelligible, appr. 1 sec)] ((she moves her hands near
 hear eyes indicating like glasses))
395 VAL: [la maschera] (.) lei prende la maschera a questo punto
 rinunci anche alla lampada (-) ma metti la maschera (-)
 cosa ti serve la maschera?
 the mask...she is bringing the mask at this point you give up even the lamp... but you put
 on the mask...what do you use it for the mask?
396 ALE: ((he hits a green poster on his own head))

((omission, 13 seconds))⁶⁶

402 VAL: scusa non ho sentito la sua risposta mi=mi perdo (.) perché
 la maschera?

⁶⁶ The omission here is due to a child, Alex, hurting himself. The turns omitted concern the teacher trying to make sure that he is okay.

403 sorry I didn't hear your answer, I lose... why the mask?
 (0.60)
 404 GAI: così posso andare sotto l'acqua.
 so I can go underwater
 405 (0.02)
 406 VAL: okay (.) quindi nuoti fino all'isola. (.) [con la] maschera
 okay, so you swim to get to the island, with the mask
 407 NAT: [io]
 I
 408 NAT: ma (-) ma=
 but...but
 409 ALE: =ma se ci:=ma se ci sta=ma se ci sta gli squali?
 but what if...what if...what if there are sharks?
 410 VAL: eh (.) quindi cosa=che oggetto porteresti?=
 mh, so what...which object would you bring?
 411 DAV: =ma se (è solo) mare non ci sono gli squali (è) solo
 oceano. (.) <<pp> ci sono i [squali]>
 but if it is just sea there aren't any sharks, it is only in the ocean that there are sharks
 412 NAT: [all'oce]ano pacifi[co].
 at the Pacific ocean
 413 VAL: [eh] non lo so se è
 u=un'isola in mezzo all'oceano o in mezzo al mare. quindi
 non so dirvi (.) se ci sono gli squali o no ma se ci
 fossero? (.) cosa prendereste allora=
 mh I don't know if it is an island in the middle of the ocean or in the middle of the sea.
 So I can't tell you if there are sharks or not, but what if there were? What would you
 bring then?
 414 NAT: =io (.) io porteresti:=
 I...I bring
 415 VAL: =alex
 alex
 416 (1.98)
 417 VAL: tu [pensaci]
 think about it
 418 ALE: [io porte]resti
 I bring
 419 (1.67)
 420 VAL: porterei
 I would bring
 421 (2.47)
 422 VAL: che oggetto porteresti?
 which object would you bring?
 423 (3.16)
 424 NAT: <<p> io la barca.>
 me the boat
 425 (3.42)
 426 ALE: ((starts making gestures and moving his mouth without
 emitting sounds))
 427 ALE: ho detto (-) una (xxx xxx) (gigantesca) che la porterò in
 mano.
 I said... a (unintelligible) giant that I'll carry in my hand
 428 (0.45)
 429 VAL: okay (.) una barca=
 okay, a boat
 430 NAT: ma (.) ma per=
 but, but for
 431 VAL: =è utile la barca?
 is it useful the boat?

432 DAV: sì.
yes
433 (0.12)
434 VAL: perché
why?
435 NAT: perché così non (xxx)=non fare=(può) non fare un buco se
c'è uno squalo
because this way it can't, it can't make, it can't make a hole if there is a shark
436 VAL: okay poi una volta che siete sull'isola vi interessa avere
la barca?
okay, then once you are on the island is it useful to have the boat?
437 (0.81)
438 NAT: no.
no
439 (0.17)
440 DAV: sì per tornare indietro.
yes to go back

{ends at 00:15:28.340}

The analytic overview of the discussion happening in this excerpt is in the following figure.

I added some colors to this specific adapted analytic overview. This was made, on the one hand, to make the reconstruction clearer (to help distinguishing the discussions and subdiscussions); on the other hand, this highlights the complexity of the phenomenon of embeddedness of subdiscussions.

The transcript opens with Nathan's question about how the children can reach the desert island. This question can be interpreted as a *sub-issue* related to the main overarching *issue*, that is the question underlying the whole activity proposed by the teacher (which object would you bring to go to a desert island).

At turn 388 Gaia advances the idea to bring a scuba mask, which can be considered the standpoint answering to the main *issue*. After an interruption due to Alex hurting himself (cf. footnote 34), Gaia gives a reason for her choice, after being prompted by the teacher: she would bring a scuba mask so she can go underwater (argument from final-instrumental cause; turn 404). The teacher reformulates Gaia's idea in such a way that she seems to address Nathan's *sub-issue* (how do the children get to the desert island?): if Gaia decides to bring a scuba mask on the island, it means that she could reach the island by swimming. At this point, Alex intervenes in the interaction by problematizing the teacher's utterance, namely he seems to target the feasibility of reaching the island by swimming. In particular, he advances the proposition that there might be sharks around the island (turn 409), which implicitly supports that getting to the island by swimming does not seem to be reasonable (standpoint C1). Alex's subdiscussion is uptaken by another child (Davide), who opens a further subdiscussion about whether sharks live in the sea or in the ocean (sub-issue D). The teacher uptakes this new subdiscussion without taking a precise stand: she says that she does not know whether the island they are talking about is in the ocean or in the sea, so she cannot tell for sure whether there are sharks. After concluding Davide's subdiscussion, the teacher goes back to Alex's subdiscussion (on *sub-issue* C) and she appears to consider the possibility of sharks around the island. In fact, she turns back to the main *issue* (which object would you bring to a desert island?) but she also suggests taking into consideration the possible presence of sharks. So, the issue has somehow being modified: from "which object would you bring to a desert island?" to "which object would you bring then?" (end of turn 413), *then* meaning if there were sharks.

After the termination of the subdiscussion, a few turns later, Nathan proposes a boat as object to bring to the island (turn 424). When the teacher asks for the usefulness of the boat, the child answers that sharks cannot make holes (turn 435). I remarked that this was a trace of the subdiscussion that introduced the possibility of the presence of sharks around the island.

Hence, in this instance it is possible to observe the traces of a subdiscussion in the continuation of the interaction. As it happened for the "Good guy or bad guy" case, the subdiscussion opened by the child has been integrated by the adult who was guiding the activity and it has a visible effect on the course of the interaction, which now includes some element that was not there before the subdiscussion. In this case, I found that the child's contribution influenced the direction of the pre-organised discussion. Clearly, we

cannot be sure that the teacher had not considered the possible presence of sharks around an island, however the interaction reveals that this constraint was not initially part of the “discussion space” as it was organized and presented to the children (so it is an unintended consequence). It is the child's engagement through the subdiscussion that introduces this constraint, consequently shaping the direction of the discourse.

One last situation in which a subdiscussion has arguably left some traces in the continuation of the interaction is presented in the following paragraph.

4.4.3 Subdiscussions and the common ground of argumentation

The example illustrated hereunder concerns an argument that a child advanced at some point during the activity of “The desert island”. During the analysis, when I was identifying episodes with the emergence of subdiscussions, I highlighted this example, even though it did not contain the opening of a subdiscussion by a child. However, I felt that what the child was saying was somehow summoning something that was previously discussed in a subdiscussion; in other words, I found traces of a subdiscussion in the premises of arguments that were advanced later in the interaction. Let us go through the example in order to clarify this phenomenon.

Example XV: “The rocket”

This excerpt starts some minutes after the “Sharks” episode. The participants in the transcript are Valeria (teacher) and Davide (6:6).

Transcript:

```
{starts at 00:18:47.564}

520 DAV: (io) (.) se (porto)
        I if I bring
521 VAL: <<to alex> ascolta eh (.) pensaci bene>
        listen mh, think about it well
522 DAV: (un) razzo abbandonato (.) (lo uso)=
        an abandoned rocket
523 VAL: <<to davide> =non ho capito. un?>
        I didn't get it, one...?
524      (0.20)
525 DAV: un razzo abbandonato
        an abandoned rocket
526 VAL: cos'è un razzo abbandona[to]
        what is an abandoned rocket?
527 DAV: [si] (.) così posso usarlo per
        andare fino all'isola (.) se gli squali=se gli squali mi
        vogliono prendere (fanno) troppo tardi perché il razzo è
        veloce perché va fino sulla luna
        yes, so I can use it to go to the island, if sharks, if sharks want to catch me they will be
        too late because the rocket is faster because it goes till the moon
```

528 VAL: ah:
 ahn
 529 DAV: (solo che è) al contrario
 only it is reversed

{ends at 00:19:10.867}

Davide is advancing his idea to bring an abandoned rocket to the island. The teacher expresses doubt about it: actually, she asks what an abandoned rocket is, but through her intonation she seems to be asking for the connection between this “strange” proposition and the island. Hence, the child, at turn 527 supports his position through a chain of arguments.

The adapted analytic overview hereunder offers the reconstruction of this argumentative discourse.

Issue A (a-Valeria): Which object would you bring to the desert island?	
Standpoint A1	
c-Davide	An abandoned rocket (T522)
Argument A1.1	
c-Davide	So I can use it to reach the island (T527)
Argument A1.2	
c-Davide	(because) sharks won't manage to catch me (T527)
Argument A1.2.1	
c-Davide	because the rocket is faster (than sharks) (T527)
Argument A1.2.1.1	
c-Davide	because it goes till the moon (T527)

Figure 4.43: Analytic overview of “The rocket”

First, Davide claims that he would bring the rocket so he can use it to get to the island. This is an argument from final-instrumental cause that can be reconstructed as follows:

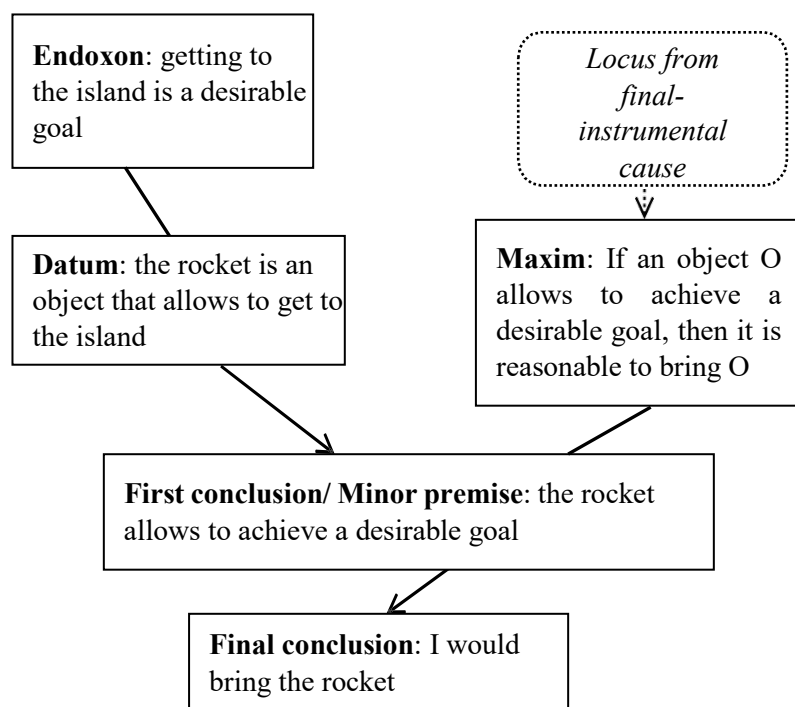


Figure 4.44: AMT reconstruction of argument A1.1 in “The rocket”

As the AMT shows, this argument is based on a material-contextual premise (the *datum*) that was explicit in Davide’s utterance (“so I can use it to get to the island” means that the rocket, according to Davide, can be a means to get to the island). The second material-contextual premise (the *endoxon*), that was implicit in Davide’s utterance, is that getting to the desert island is a desired goal. What I found interesting here is that this starting point that Davide uses to build his argument does not come from nowhere, but it summons the *sub-issue* that Nathan had previously opened about how the children could get to the desert island (cf. “Sharks”). In example XIII (“Sharks”), the teacher had taken Nathan’s *sub-issue* into consideration, and she had proposed a way for the children to reach the island (by swimming), which was subsequently challenged by Alex who worried about sharks. Davide with this argument seems to have integrated that the children need to find a way to get to the island, so getting to the island is a desirable goal (*endoxon*). This proposition, that comes from the subdiscussion opened by Nathan, has become part of the common ground of the discussion and Davide uses it to build on his argument to support the object he thinks it is reasonable to bring to the desert island.

The same happens for argument A1.2, that can be reformulated as: I bring an abandoned rocket so I can get away from sharks (the child says that if sharks want to catch him, they won’t manage). This argument is also from final-instrumental cause (see the AMT below).

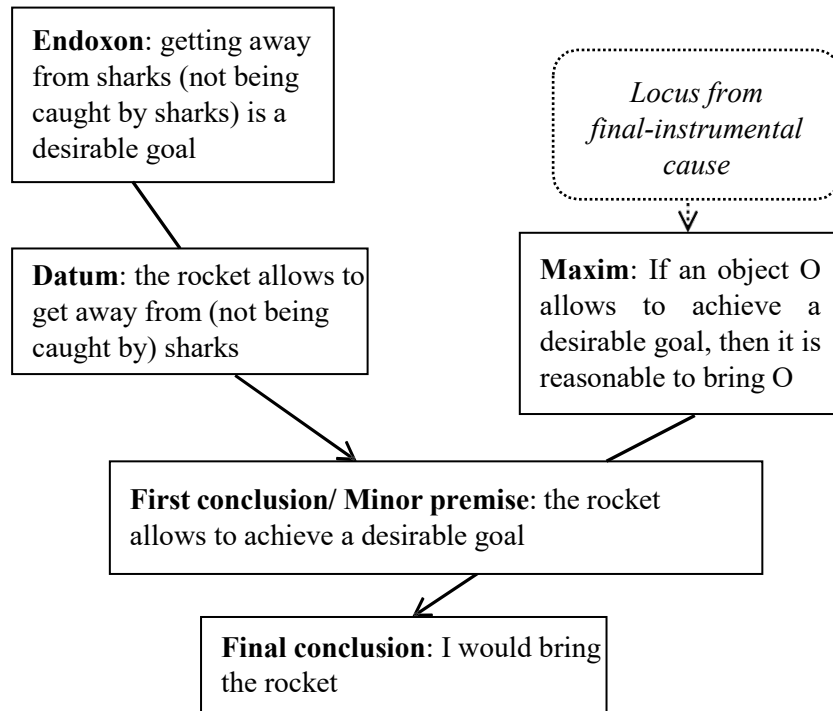


Figure 4.45: AMT reconstruction of argument A1.2 in “The rocket”

Similarly with the other argument, the AMT was applied to underscore that the proposition contained in the *endoxon* is summoning a previous subdiscussion about sharks. At first, I thought about the subdiscussion that was examined in the “Sharks” case, the one opened by Alex. This would be another proof that Alex’s subdiscussion in “Sharks” has shaped the discourse in such a way that children are now proposing to bring objects to the island taking into consideration that there are sharks (which is a constraint introduced by children themselves, not the teacher who organized the discussion). Since in his argument of the rocket, Davide seems to make reference to a sort of race between the rocket and the sharks trying to catch him, and he later says that the rocket is faster than the sharks (argument A1.2.1 supporting argument A1.2), I found also probable that the child was summoning another subdiscussion that happened after the “Sharks” case, which involved Alex and Gaia.

The transcript of this other episode, involving Gaia (4:6), Nathan (6:4), Alex (5:2), Davide (6:6) and the teacher, is provided below:

Example XVI: “The inflatable mattress”

{starts at 00:15:28.720}

441 GAI: io mi (porterei) anche [un=un ma]terassino (.) che si
gonfia (.) così ci (metterei anche un cuscino)
(unintelligible) (e mi posso rilassare)

I would also bring with me a mattress that you inflate, so I would also put a pillow on it
 (...) and I can relax

442 NAT: [aspetta]
 wait
 443 (1.12)
 444 VAL: aspetta aspetta il=quello gonfiabile
 wait wait, the inflatable one
 445 ALE: e se arriva uno squalo (xxx) se arriva uno [squalo (che)
 (unintelligible)] vai sott'acqua e non riesci a respirare?
 and what if a shark arrives, if a shark arrives that (...) you go underwater and you cannot
 breathe?

446 DAV:
 [(unintelligible)]
 447 (0.03)
 448 NAT: (unintelligible)=
 449 GAI: =ma io=ma io (xxx xxx) sott'ac[qua]
 But I, but I (...) underwater
 450 ((all the children start talking with a loud voice and
 nothing is intelligible, appr. 3 sec))
 451 VAL: [(xxx xxx) calma calma (.) calma] (unintelligible) non si
 capisce (.) al[lora]
 (...) quiet, quiet, quiet (...) we don't understand, so
 452 GAI: [ma io] scappo vi:a
 but I'll get away
 453 (0.05)
 454 VAL: lei ha detto che si porta il materassino che viaggia
 sull'acqua federica non hai nessuna idea?
 She said that she brings the inflatable mattress which goes on the water, Federica you
 don't have any ideas?
 455 (0.04)
 456 ALE: ma se [ma se (.) (xxx xxx) lo squalo (va)] (troppo veloce)
 (unintelligible)
 but if but if (...) the shark swims too fast (...)
 457 VAL: [non hai niente da dire mai niente?]
 you have never anything to say nothing ever?
 458 NAT: [ma]=
 but
 459 VAL: =[da]:i: (.) vai là vicino alla gaia (-) (così) sei più nel
 clou (unintelligible)
 Come on, go there close to Gaia, so you are more in the middle (...)
 460 GAI: [(unintelligible)]
 461 ALE [(unintelligible)] (troppo) veloce
 (...) too fast

{ends at 00:16:17.591}

The analytic overview that displays this argumentative interaction is available in the following figure.

In this occasion, Gaia (after the idea of bringing the scuba mask) advanced another idea: that she would bring an inflatable mattress so she could relax on the island (turn 441). Her argument is challenged by Alex who problematizes that the mattress is not safe, because if a shark arrived, the mattress would flip, Gaia would go underwater, and she could not breathe (turn 445). Gaia reacts to this *sub-issue* about the safety of the inflatable mattress, by claiming that she would escape the sharks with her mattress (turn 452). Alex

replies again criticizing Gaia’s argument by putting into question whether Gaia could really escape sharks with her mattress. He even advances an argument for why, according to him, this was not possible: because sharks swim too fast (turn 456).

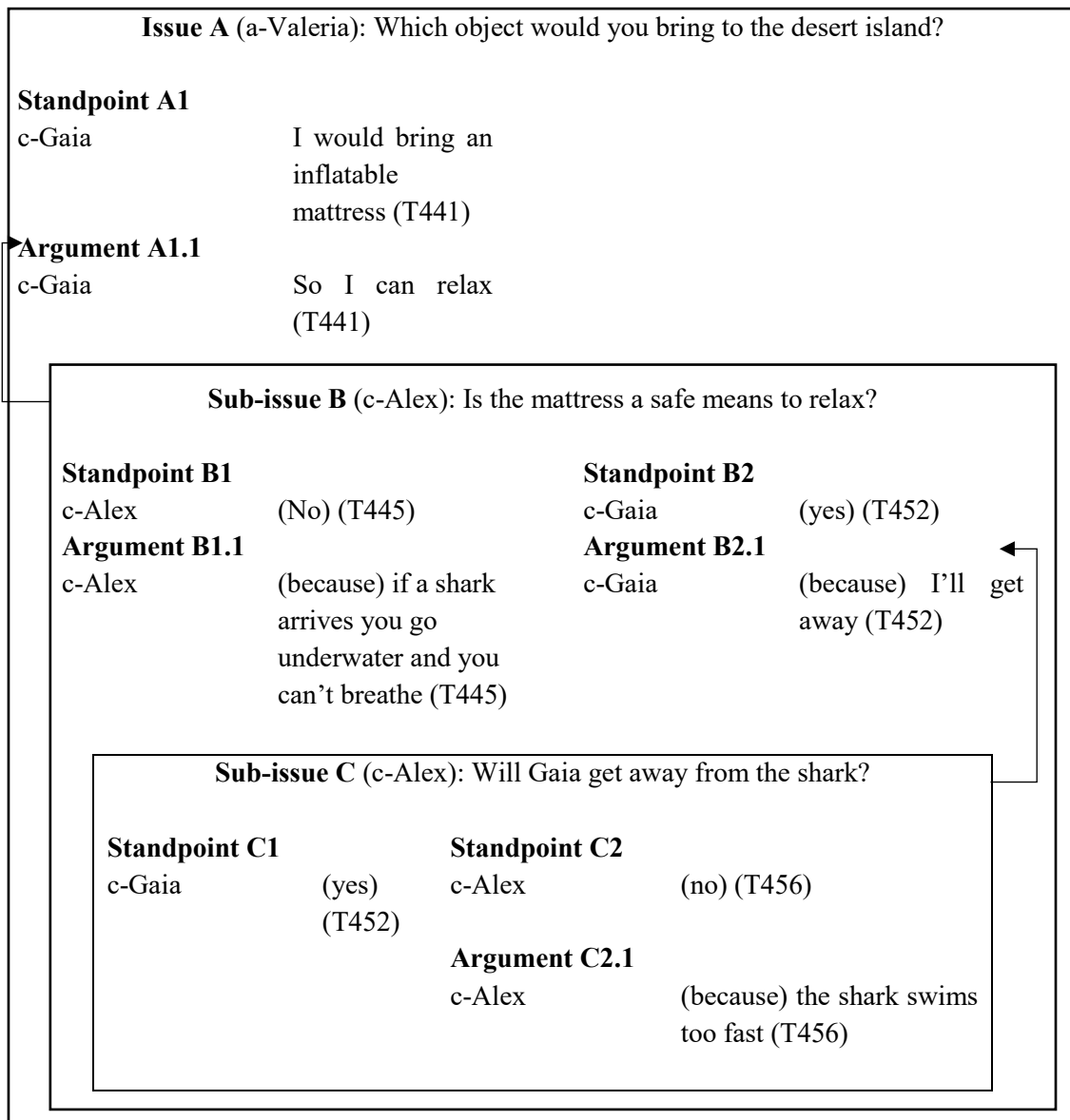


Figure 4.46: Analytic overview of “The inflatable mattress”

If we go back to “The rocket” case, we can now realize that Davide, at turn 527, argued that the rocket allows to get away from sharks, because the rocket is faster, which seems to recall the subdiscussion concerning the inflatable mattress vs sharks.

Anyway, whether Davide’s argument builds on the subdiscussion opened by Alex in the “Sharks” episode, or on the one opened by Alex in “The inflatable mattress”, the main

idea is to highlight the dynamics with which it happened that a subdiscussion has been integrated in the common background knowledge on which new argumentation was built. I considered this type of integration of a subdiscussion as well as a potential consequence of children’s subdiscussions on the design of argumentative interactions. In other words, the subdiscussion becoming part of the common ground of the participants of a discussion is a way with which subdiscussions can shape the interaction.

Within the corpus I found a total of 10 subdiscussions opened by children that somehow shaped the following interactions, so it can be said that in 10 cases out of 61 children’s argumentative contributions through the opening of a subdiscussion have had an impact on the course of the interaction proposed by the adult.

Interestingly, I identified two cases of subdiscussions that were uptaken but did not have a conclusion and still they shaped the design of the interaction. One is the subdiscussion opened by Nathan, that we already mentioned in “Sharks” and “The rocket”, i.e. the subdiscussion about how to get to the desert island. This subdiscussion was uptaken at first by the teacher, but it never reached a conclusion. Anyway, “The rocket” case has shown how the *sub-issue* opened by Nathan has shaped Davide’s discourse and reasoning about which object he would bring to the desert island.

Regarding the type of activity in which the integrated subdiscussions occurred (cf. the tables presented in section 4.2), it can be noticed that they were all activities strongly pre-organised (+). In particular, 3 integrated subdiscussions took place in the “Moral dilemma (I)” video recording, 1 in “Symmetries III”, 1 in “The WWF”, and 5 in “The desert island”.

The following table illustrates the subdiscussions shaping the continuation of the interaction with respect to the types of activities in which the subdiscussions occurred.

Type of activity	Total of children’s subdiscussions	N. Subdiscussions shaping the interaction
Organised discussions (+)	38	9
Non-organised discussions (-)	5	0
Pre-school activity (+)	14	1
Book/Film Club (+)	4	0
Organised Play (+)	5	0
Free play (-)	0	0

Figure 4.47: Relation between subdiscussions shaping the interaction and the type of activity

In the table, it is interestingly evident that the subdiscussion that had a consequence on the course of the interaction happened only in interactions where the activities had a strong pre-organization, meaning that the adult proposing the activity had prepared it quite carefully in terms of materials, in terms of agenda of the conversation and objectives

to attain. Of course, it must be taken into consideration that the activities less pre-organized featured very few subdiscussions. All these reflections might suggest that the more an activity was pre-organized by the adult the more the children opened subdiscussions, and the more children opened subdiscussions the more likely subdiscussions shaped the discourse.

At this point, an important question could be: what about the subdiscussions opened by adults? Do they shape the interaction in the same way as children, or is the impact of an adult's subdiscussion stronger? Unfortunately, this question goes beyond the scope of the present dissertation; however, this could be the focus of a further study that could interest, for example, people reflecting on young children's agency in discourse.

A further possible research lead could be finding a way to categorize the type of sub-issues opened by children, in order to observe whether certain types are more integrated than others⁶⁷.

The presentation of the results of our analysis is now concluded. In the subsequent chapter the findings illustrated so far will be synthesized and discussed.

⁶⁷ I thought of this possibility after listening to the contribution by Oliver Spiess, Daniel Müller-Feldmeth, Tamara Koch and Martin Luginbühl at ARGAGE conference in Fribourg (25-27 June 2024). The presentation dealt with how children construct common ground in argumentative interactions with peers. One way they do so is by the questions they raise in the interaction (from my perspective, then, they do so by opening *sub-issues* in the ongoing discussion). Spiess et al., in their presentation, focused on questions aimed at re-establishing a knowledge gap. This made me think of the fact that the sub-issues opened by children could be different: they could address a knowledge gap, or an argumentative misalignment, or they could be exploratory, etc. More research is needed to investigate this aspect more thoroughly.

5. Discussion

The previous chapter presented an empirical examination of the phenomenon of subdiscussion, which appears to be lacking in the existing literature on argumentation studies (cf. Chapter 2, section 2.3). Specifically, while the concept of subdiscussion is acknowledged in the literature, scholars seem to have been interested only in its potential emergence within an ongoing critical discussion. The aim of this work was to investigate subdiscussions as a complete process that has a beginning and, at least theoretically, an end. This is why I suggested the image of the life cycle (Chapter 2, section 2.6), to emphasize attention to each phase of the subdiscussion: emergence, development, and conclusion. The underlying idea is that observing and understanding subdiscussions enables a better comprehension of the argumentative interactions in which they arise.

The choice of examining subdiscussions initiated by children within children-adult argumentative interactions at a kindergarten was made as this research builds upon a previous project aiming at understanding how 2-to-6-year-old children participate in argumentative discussions. In this sense, this dissertation aims to achieve a dual purpose: firstly, it investigates the concept of subdiscussion from an empirical point of view; secondly, the study of children's subdiscussions is functional to deepen the understanding of children's reasoning and engagement in argumentative interactions.

In the first part of this chapter, the findings of this dissertation will be read in the light of the existing literature on argumentation theory, with the aim of highlighting the contributions of this study to the understanding of the concept of subdiscussion (section 5.1). In the second part of the chapter, the findings will be looked at with a different perspective, in the light of previous research on children's argumentation, in order to understand how the observation of children's subdiscussions can enhance the comprehension of the child's activity in argumentative situations (section 5.2).

5.1 Subdiscussions and Argumentation theory

In order to understand how our analysis of children's subdiscussions enlightens about the phenomenon of subdiscussion, we propose to return to the research questions that were raised in this dissertation and to answer them.

RQ1: What is the “life cycle” of children’s subdiscussions in children-adult argumentative interactions?

RQ1a: How do children’s subdiscussions emerge?

Starting from Schär's typology of issues that emerge in children-adult argumentation (Schär, 2018a, 2021), our analysis revealed that children initiated subdiscussions by

questioning both adults' utterances and their peers'. The AMT highlighted that the aspect problematized was mostly the material-contextual component of the argumentation advanced by the interlocutor, in particular the *datum*. To my knowledge, there are no current systematic studies on subdiscussions with which these results can be compared. However, it is noteworthy that the material-contextual component is more sensitive to criticism than the procedural-inferential one and it is more likely to be the target of a subdiscussion. This result could be further investigated, also to understand whether it was specific of the context that I examined, or whether it also applies to other argumentative contexts. For example, when Greco (2023) investigates Twitter activists' argumentation in the context of the controversy surrounding fashion sustainability, she argues that activists "open subdiscussions on material starting points, calling into question material premises (facts, values, or knowledge propositions) that are taken for granted by fashion brands when they declare themselves sustainable in their communication campaigns" (ibid., p.2). Moreover, she found that all the subdiscussions in her dataset concern *data* rather than *endoxa*, however she mentions that there are examples of "*endoxa-targeting campaigns*" (Greco, 2023: 18). Since this was a case-study, it does not make sense to generalize nor compare these results, however I think that this occurrence (the fact that young children mainly targeted factual *data*) could be object of further investigation. Is it specific of young children to question the *datum*? Are there maybe differences in different age groups?

Our analysis also underscored a target of subdiscussion other than the starting point of an argument. Namely, in our corpus, children happened to open subdiscussions by questioning the *issue* of the main argumentation. Following Krabbe's proposition (2003) of points that may be the object of a meta-dialogue (or subdiscussion – cf. our discussion in chapter 2, sections 2.3.2 and 2.3.6), we read that discussants can open embedded discussions: on their willingness or reluctance to resolve the main dispute through dialogue (point 1); on the type of dialogue with which resolve it (point 2); on the dialectic rules to respect (point 3); on the roles of the discussants in the discussion (point 4); on the procedural components of the discussion, such as the modes of reasonings accepted (point 5); on the propositions that can be used to support standpoints (point 6). The possibility of calling into question the *issue* under discussion does not appear in this list, yet this work identified many instances of children opening subdiscussions targeting *issues*. This could already offer a modest contribution to the concept of subdiscussion in argumentation theory.

Furthermore, when examining how children's subdiscussions emerge, it was found that many subdiscussions were opened as counterarguments, but not only (cf. the subdiscussions targeting *issues*). This allowed to better explore the relationship between subdiscussions and counterarguments, clarifying how they are distinct phenomena. Subdiscussions can arise from counterarguments (Rocci, 2021), but not necessarily, and, besides, subdiscussions go beyond counterarguments: they are dynamic dialogical processes including the potential replies to the counterargument, and they can impact the outcome of the overarching discussion within which they unfolded.

Finally, the subdiscussions opened by children were mostly accompanied by a justification. Even when the subdiscussion targeted the *issue* of the main argumentation, the children in the corpus generally provided arguments to justify the subdiscussion that they initiated. This finding could be interpreted by considering that the opening of a subdiscussion might be perceived as a disruptive event in communicative interaction (Goodwin, 1987; Goodwin & Goodwin, 1990). Indeed, a subdiscussion is an unexpected occurrence for the participants, given that it arises when one of the speakers recalls into question some component of the argumentation that the other speaker has assumed as self-evident. Therefore, justifying the initiation of a subdiscussion could be a way to mitigate the disruption.

Furthermore, some scholars suggested a potential correlation between the relevance of *issues* raised in a discussion and their acceptance (Craig & Tracy, 2005). I attempted to observe this aspect in my corpus but I noticed that there was no correlation between the fact of justifying the subdiscussions that children opened and the acceptance of the subdiscussion. However, I think it is interesting to retain that children often provide justifications for their subdiscussions. Further research could explore this aspect, especially it could be investigated whether adults also feel the need to justify subdiscussions when they initiate them with children. Such study could enhance the understanding of the legitimacy of who can open *issues* in certain communicative interactions.

RQ1b: How do children's subdiscussions develop?

In the literature review of the subdiscussion within argumentation studies discussed in chapter 2 (section 2.3), I mentioned several empirical works that identified subdiscussions. However, these studies did not focus on the process of the subdiscussion or on the subsequent developments. Research within the field of children's argumentation, apart from noting the occurrence of subdiscussions opened by children, pointed at instances of subdiscussions interrupted by adults (cf. Arcidiacono et al., 2009; Greco et al., 2017). The present dissertation provided the opportunity to explore this aspect more thoroughly and to extend the analysis beyond the emergence of children's subdiscussions.

Our study showed that, after their emergence, subdiscussions were generally uptaken by other participants in the discussion, which could be other children or adult interlocutors (mainly the teacher, but sometimes also the educators and the researcher). In a few cases (7 out of 61), subdiscussions were not uptaken or they were dismissed by the adult. This happened mainly because of practical difficulties related to the class management (e.g., the teacher being distracted by other children), or because subdiscussions opened by children were perceived by the adult as ways to derail the conversation (on this aspect see section 5.2).

Focusing on the adults' response to children's subdiscussions, I remarked four possible ways with which the adult received and reacted to the subdiscussion: a) the adult enters

the subdiscussion by opposing the sub-standpoint of the child; b) the adult enters the subdiscussion by supporting the sub-standpoint of the child; c) the adult does not take a sub-standpoint, but tries to mediate between the children involved in the subdiscussion; d) the adult opens a new subdiscussion within the child's subdiscussion.

These were the types of uptakes observed in the corpus examined in this dissertation. There may be additional types that this study did not capture. Nevertheless, these categories provide an initial framework for describing how adults reply to children's argumentative contributions. This perspective is often overlooked in many studies on children's argumentation, which tend to focus "only" on what the child does and not on how he/she is responded.

Furthermore, this research intentionally concentrated on the ways adults take up children-initiated subdiscussions. However, it could be also interesting to explore how children reply to subdiscussions. A preliminary examination of the subdiscussions in my corpus suggests that children employed the same types of uptakes as those identified for adults, with the exception of the mediation type. It is fundamental to remember that the focus of this dissertation, and consequently the analysis conducted, concerned subdiscussions initiated by children. Thus, the types of children's uptakes mentioned earlier refer to these instances. A further contribution could concentrate on the analysis of subdiscussions initiated by adults and how children respond to them.

RQ1c: How do children's subdiscussions end?

The uptake of a subdiscussion did not necessarily indicate that the subdiscussion reached a conclusion. In fact, in the analysis, subdiscussions were annotated as uptaken if some other discussant replied to them in some way (e.g., opposing or supporting the subdiscussion). Yet, to establish whether the subdiscussion came to an end, I examined the presence of the concluding stage (van Eemeren, 2018).

A third of the children-initiated subdiscussions in my corpus were abandoned. This can lead to some reflections from a psychological point of view (cf. section 5.2). From the perspective of argumentation theory, the fact that subdiscussions are interrupted can be explained as a violation of some rule of the code of conduct for reasonable discussants proposed by van Eemeren and Grootendorst (2004). Schär (2018a; 2021) already underscored the importance of the *freedom rule*, according to which the parties cannot prevent each other from advancing standpoints or calling them into question (van Eemeren & Grootendorst, 2004). This is also valid for sub-standpoints (van Eemeren & Grootendorst, p. 147). In this work, I also pointed out how other rules (the *concluding rule* and the *language use rule*) can be the cause of the interruption of a subdiscussion.

Apart from the deviation from the ideal model, which is something understandable, given that real-life conversation is more complex than ideal argumentation, I want to raise attention to the fact that the interruption of a subdiscussion entails the suspension of the main argumentative discussion in which it emerged (cf. "The wand", Example VIII, subsection 4.3.2.4).

The analysis also highlighted many instances of subdiscussions that reached a conclusion. For these cases, three types of outcomes of the subdiscussion were found. The first one is when the subdiscussion does not end in favor of its initiator (i.e., the child) and, returning to the main discussion, the *standpoint* (or the *issue*, if the subdiscussion targeted the *issue*) is reaffirmed (cf. “The art apron”, Example X, subsection 4.3.3.1). The second case is when the subdiscussion ends in favor of its initiator (i.e., the child) and, returning to the main discussion, the *standpoint* (or the *issue*, if the subdiscussion targeted the *issue*) is changed (cf. “Animal sounds”, Example XI, subsection 4.3.3.2). Finally, in one case in the corpus, the subdiscussion ended in favor of its initiator, but the participants did not return to the main discussion (cf. “The wind”, Example XII, subsection 4.3.3.3). I annotated this type as a subdiscussion that did not contribute to the resolution of the main argumentation. In fact, it is a subdiscussion that reached an end that is accepted by the interlocutors, but the step where the discussants go back to the main argumentation is missing. This happened because the teacher shifted the attention to something else right after the conclusion of the subdiscussion and the children seemed to have forgotten about the main discussion. In subsection 4.3.3.3 I argued that this could be seen as a violation of the *language use rule* of a critical discussion (van Eemeren & Grootendorst, 2004; see also chapter 2, subsection 2.1.1 in this dissertation).

RQ2 What is the consequence of children’s subdiscussions on the course of the interaction in which they emerge?

As it has been presented in Chapter 2, section 2.5 and also in Chapter 4, section 4.4, this work attempted to adopt a design perspective to argumentation. Drawing inspiration from Aakhus (2007), Jackson (2012) Jackson & Aakhus (2014), Jackson (2015), I tried to examine how argumentative discourse is organized and managed. In particular, I proposed a narrower understanding of the concept of “designed communication tool”, where children-adult interactions are the “platform”, the space, in which the participants can interact following their understanding of this space (cf. chapter 2, section 2.5). Within this perspective, adults’ instructions and proposition of *issues* create a certain discussion space, conditioning the communication possible in this space. Hence, I hypothesized that children-initiated subdiscussions could be instances of “unintended consequences” of the discussion space organized by the adult, i.e., unexpected deviations from how the adult understands the discussion that he has organized.

The second focus of this dissertation, thus, was to examine what happens to the interaction after the occurrence of a subdiscussion opened by a child, namely how children’s subdiscussions are dealt with in the interaction and whether they affect somehow the flow of the ongoing discourse. To investigate this, I observed whether, after the occurrence of a subdiscussion, any traces of the subdiscussion were retrievable in the subsequent interactions.

From the analysis it emerged that in most cases, after the conclusion of a subdiscussion, the interaction continues as if the subdiscussion never occurred (cf. “The swimming suit”

– subsection 4.4.1). Hence, the subdiscussion seems to be a parenthesis within the interaction. However, a few cases were identified where more or less explicit linguistic traces of a subdiscussion were found in the continuation of the interaction. This was interpreted as a visible consequence of the subdiscussion opened by the child. Therefore, the answer to RQ2 is that, in most cases, children’s subdiscussions work as parenthetical elements that do not have a visible impact on the ongoing discourse, but it can happen that children’s subdiscussions shape the continuation of the interaction. The question now is when does this happen? Are there specific situations that make that a subdiscussion is integrated or not in the continuation of the interaction? Within the context of the corpus examined, I noticed that this happens either when the adult leading the discussion decides to integrate the child’s subdiscussion (cf. “Good guy or bad guy” and “Sharks” – subsection 4.4.2), or when future argumentation is based on a past subdiscussion, which signals that the subdiscussion has become part of the common ground of the interactants (cf. “The rocket” case – section 4.4.2).

Such findings have important implications for the understanding of the concept of subdiscussion in argumentation theory. From the literature review provided in Chapter 2, it seems that the subdiscussion reflects the idea of parenthesis as I suggested. The subdiscussion is described as a possibility for the parties of a critical discussion to re-establish agreement over a proposition that lacked acceptability in the first instance (van Eemeren & Grootendorst, 2004). Even in the concept of “dialectical profile” (van Eemeren, 2018: 42-49), where subdiscussions are marginally presented as an example of a possible route for discussants in the unfolding of argumentative moves, the perception of the concept of subdiscussion is that of a linear phenomenon. This thesis emphasizes the importance of considering the fluidity and complexity of argumentative interactions and arguably sheds light on a more dynamic facet of the concept of subdiscussion: our findings suggest that subdiscussions can have enduring consequences that shape the development of subsequent discourse. This offers valuable insights into the dynamics of argumentative discourse and, more specifically, into how argumentation can shape discourse.

Returning to my adapted “design” hypothesis concerning how children-adult argumentative exchanges are organized and managed, this work underscored how children’s subdiscussions are a sign that the child’s interpretation of the discussion is different from what the adult presupposed, and that the child attempts to interact in the discussion for how he/she has understood it. So, children’s subdiscussions can be seen as unintended consequences of the discussion proposed by the adult. However, it was unlikely, in my corpus, that these unintended consequences impacted the unfolding of the discussion. In fact, from the analysis, the potential consequences of subdiscussions on the course of the interaction depended on the flexibility of the discussion space and, even more, from the flexibility of the participants into the discussion, in particular when they have a leading role, as it was in our case with the teacher and the educators.

This recalls and leads to the importance of reflecting about agency in discourse and the role of the adult when he/she engages in argumentative interactions with children (cf. section 5.2).

In conclusion to this section where the findings of the dissertation were discussed in relation to the literature on argumentation studies, I find it important to underscore some reflections from a methodological point of view. Drawing from Schär (2018), an adapted version of the analytic overview was employed in the analysis for reconstructing argumentative discourse. As van Eemeren (2019: 156) suggests “The analytic overview gives a description of *all* argumentative moves in the discourse that are *pertinent to an adequate evaluation*” (my emphasis). In this dissertation, apart from the integration of the *issue* as Schär proposed, I also indicated *sub-issues* and linked them through an arrow to the argumentative moves that they challenged. In my experience, integrating in the analytic overview the raising of an *issue* (and *sub-issues*) was fundamental to gain a better comprehension of the argumentative interaction and of how the moves were constructed by the participants. Furthermore, this approach helps to perceive the dynamicity of the argumentative exchange, an aspect that sometimes may be overlooked in some works. The AMT was a powerful instrument that I would like to emphasize as well, since it successfully allowed to “zoom in” on an argumentative move and observe which part of it was problematized by the child through the opening of the subdiscussion.

This section aimed at extending the understanding of the concept of subdiscussion in argumentation theory, which was the first aim of the thesis. The following section attempts to achieve the second purpose of this work, namely, to examine how studying children’s subdiscussions can enhance the understanding of the child’s activity in argumentative interactions.

5.2 Subdiscussions and the child’s activity in argumentative situations

This part of the chapter intends to reflect on the findings of this work from a different angle than the one employed in the previous section. As it was anticipated in Chapter 1, this dissertation proposes that observing children’s subdiscussions can offer a perspective to understand the child’s thinking and activity in argumentative interactions, which is an important issue for developmental psychology.

In this domain, there has been an important debate about the emergence and development of argumentative discourse in children. Some scholars claimed that argumentative skills seem to appear in children quite late (Dolz, 1996; Felton & Kuhn, 2001; Kuhn, 1991). Yet, other researchers, though realizing that argumentation could be specifically mastered in adolescence, believe that argumentative skills emerge very early in development (Eisenberg & Garvey, 1981; Kyratzis et al., 2010; Orsolini & Pontecorvo, 1992; Stein & Bernas, 1999; Stein & Miller, 1993; Völzing, 1981).

More research has demonstrated that children, even very young ones, are active contributors to critical discussions, some conditions being respected, such as the presence of adequate space (for a review cf. Bubikova-Moan & Sandvik, 2023; but see also: Hannken-Illjes & Bose, 2018, 2019; Convertini, 2019; Schär, 2018a; Greco & Perret-Clermont, 2022; Arcidiacono & Bova, 2015). It has also been shown how considering argumentation as a dialogical process allows for a better understanding of children's argumentative contributions (Perret-Clermont et al., 2019).

Following this stream, this dissertation proposes that the study of children's subdiscussions contributes to a more comprehensive understanding of the child's engagement in argumentation (cf. section 2.6).

To begin with, I want to underscore that the fact that the child problematizes something in the interlocutor's utterance denotes their participation at the level of argument evaluation. The opening of a subdiscussion by the child, hence, demonstrates that the child listens and assesses the reasons that the interlocutor advances. Clearly, the child performs this evaluation from their own perspective and based on their understanding of the context.

To further explore how observing children's subdiscussions helps understanding how children participate in argumentative discussions, I will discuss in the following paragraphs the main findings about children's argumentative activity emerging from previous research and I will integrate these with some reflections coming from the data analyzed in the present thesis.

Subdiscussions and co-construction of argumentation

One fundamental insight from the literature is that argumentation is co-constructed by the actors within the specific setting in which they interact (Perret-Clermont et al., 2019; Convertini, 2019; Arcidiacono & Perret-Clermont, 2009; 2010; Perret-Clermont et al., 2014; Greco Morasso et al., 2015). This consideration is crucial also in this dissertation. An example can be found in the "Pikachu" case (Chapter 4, section 4.3.3.2, Example XI). In that situation, it was particularly evident how the utterance of the researcher ("What if Nathan stole Davide's Pikachu?") becomes a standpoint only after Nathan's response ("But I would never do that...he is my best friend"). After that, another child (Davide) interprets the issue that had just emerged (Would Nathan steal Davide's Pikachu?) and problematizes it, calling into question whether the issue was really an issue (which led to the emergence of a subdiscussion).

Following this, it can be claimed that "children's argumentative interventions are more complex than expected in literature on children's argumentative skills" (Perret-Clermont et al., 2015). In the article just mentioned, the authors provide one example to show how children's argumentation can be complex. In the excerpt analyzed (taken from Miserez-Caperos, 2017), some children were collaborating to recognize which was the tricked dice among others, and they started discussing about colors, especially the meaning of black and white. The authors pointed out that children used different levels of subordinate argumentation. When I went through the reconstruction of the argumentative structure of

the episode (Perret-Clermont et al., 2015, pp.139-145), I noticed that the sub-arguments that are displayed are the result of a subdiscussion opened by the adult experimenter (the adult had problematized something in the child's argumentation). Consequently, the child provided further arguments, that in the article are considered as sub-arguments. In this case, I believe that observing the subdiscussion allows to look at the excerpt in a different way. The subdiscussion *allowed the child to go deeper in his argumentation and to clarify the premises of an argumentative move*. The child did not provide the sub-arguments on his own: it is still a result of a co-construction between the child and the adult who opened a subdiscussion.

*Subdiscussions and "possible worlds"*⁶⁸

In the case of the tricked dice, it can also be observed how children can interpret the tasks in a different way than the adult who had the script of the experiment in mind. This was also a finding pointed out by Iannaccone et al. (2019). In this contribution, the authors analyzed some cases of children's argumentative contributions that were not expected by the adult interlocutor. One instance is the "Talking animals" case, where the experimenter proposed some children the Piagetian task of the conservation of liquids (cf. Piaget and Szeminska, 1941)⁶⁹. To introduce the task, the adult experimenter presents some soft toy animals and tells the children to give them to drink. A child critically reacts to this by saying that the soft toy animals cannot drink, because their mouth is closed. The authors describe, from this episode, how the children's interpretation of a situation can diverge from that of the adult. Nevertheless, "the reasoning of the child makes sense when situated in her possible world" (Iannaccone et al., 2019; see also Lombardi et al., 2018). The adult proposed the story of a party among the soft toy animals, which is a set-up for the experimental task that she wants to test; possibly, in the adult's mind it is a plausible story. The child, on the other hand, seems not to have entered completely this story, since in her argument concerning the impossibility for soft toys to open their mouth, the child is not referring to the fantastic world proposed by the adult, but to the real world where soft toys have a material constraint for which they cannot open their mouth.

Although my corpus for the present dissertation did not concern experimental tasks, misalignments between the child's and the adult's perspective were also found in the

⁶⁸ The notion of "possible worlds" is taken from Iannaccone et al. (2019), who take it in turn from Bruner (1986). According to Bruner, narrative has a crucial role in shaping how people understand reality and imagine alternatives. Through narratives, individuals can imagine "possible worlds" – alternative realities that expand their understanding of their experiences and of the world around them.

Iannaccone et al. (2019) speak of children as "explorers of Brunerian possible worlds", referring to Bruner's idea that the child's interpretative activity of reality can be observed "as a sort of continuous elaboration of narrative versions of the world", i.e., "possible worlds" (ibidem, p.680).

⁶⁹ As explained by the authors in the contribution, the excerpt is taken from the PiagetArg project (full name: "The development of argumentation in children's interactions within ad hoc experimental and classroom contexts"). This was another project funded by the Swiss National Science Foundation (contract PDFMP1-123102/1) and conducted under the direction of Anne-Nelly Perret-Clermont and Francesco Arcidiacono; PhD students: Stéphanie Breux, Lysandra Sinclair-Harding and Céline Miserez-Caperos. The "Talking animals" episode comes from the data corpus of Dr. Miserez-Caperos (cf. Miserez-Caperos, 2017).

discussions during the activities at the kindergarten. Let us take “The brother” case (Chapter 4, subsection 4.3.1.2.4, Example IV). The teacher initiated a discussion concerning a moral dilemma. The fictitious story that the teacher proposes to the children is the following: “Tina and Tony at their new school have become friends with Luca and Valentina. One day, during the recreation, Tony has seen Luca stealing Valentina’s soft-toy (a sheep). Tony does not know what to do, whether to confront Luca, or talk to Valentina, or say nothing. When Tina and Tony go home after school, Tony tells about what he saw to Tina and asks for her advice. What would you tell to Tony?”⁷⁰

In other words, the children are invited to discuss about what they would do if they witnessed a friend stealing something from another friend. After some time, Bianca intervenes in the discussion and advances that she would confront Luca. The teacher questions Bianca about whether it is right to do like this (*issue*), since confronting Luca entails snitching on her brother⁷¹. Bianca, after a pause, reacts by saying that she does not have a brother, which implicitly opens the *sub-issue* about whether Bianca has a brother. The teacher in this situation enters the subdiscussion and argues that Bianca has a brother, because she is impersonating Tina (and Tina has a brother, Tony). This example, then, is a further clear instance of how children can interpret differently the situation and interact accordingly: Bianca was probably participating in the activity from her real world, where she is an only child; while the teacher was probably interacting considering the assignment she gave at the beginning of the activity (pretending to be Tina).

What I believe is noteworthy in this example is not only that the subdiscussion was a cue enabling to observe the “possible worlds” (Iannaccone et al., 2019) of the interactants and the misalignment between child and adult, but also that the subdiscussion *was the means through which the interlocutors tried to resolve the misalignment*.

Subdiscussions and “explorative thinking”

Iannaccone et al. (2019) also pointed at the importance of “explorative thinking” in children’s argumentative activities. In the paper, the researchers concluded that “thinking in social interactions can be considered an adventurous “sailing” among islands of real and imagined worlds. And specific argumentation practices are used in this journey for testing “reality”, the world in which to talk and act” (p. 690).

The present dissertation could reinforce this idea. In fact, some of the subdiscussions identified in the corpus can be seen as instances of what the authors call “exploratory movements” (ibidem, p. 689). In the “Sharks” example (Chapter 4, subsection 4.4.2, Example XIV), the children are discussing about which object they would bring to a desert island (as this was the topic of the activity proposed by the teacher). At some point,

⁷⁰ This is a reconstruction of the actual discourse used by the teacher. Her utterances were often interrupted by children that intervened in the story without letting the teacher end. Hence, for reasons of readability, I proposed a reconstruction of the discourse, although I tried to keep the actual words of the teacher as much as possible. NB: the protagonists of the story, Tina and Tony, are two fictional characters that the teacher often uses with the children as expedient when she introduces the activities, so the children are familiar with them. Tina and Tony are brother and sister.

⁷¹ Cf. footnote 53.

Gaia advances her idea of bringing a scuba mask. The teacher, seemingly replying to a *sub-issue* opened by another child, uses Gaia's proposition to argue that the island can be reached by swimming. Alex, another child, subsequently challenges this proposition by opening another *sub-issue*: is it possible to reach the island by swimming if there are sharks? Arguably, the child is "testing" the possibility that on the island that they have been proposed by the teacher there could be sharks.

Another similar example is "Good guy or bad guy" (Chapter 4, subsection 4.3.2.2, Example VI). This episode comes from the activity on the moral dilemma (Tony saw his friend Luca stealing the soft toy of his friend Valentina and asks for his sister Tina's advice on what to do). The teacher, at some point, asks the children whether, according to them, Luca is a good character. Bianca advanced that Luca is bad because he stole Valentina's soft toy, which presupposes that the act of stealing defines its agent as a bad person. Nathan challenges this premise by suggesting reasons why Luca had possibly stolen Valentina's soft toy, such as the fact that maybe it was Valentina's birthday and Luca wanted to make a bigger soft toy for her. By doing so, Nathan has opened a subdiscussion about whether the act of stealing can sometimes be good, which would nuance the judgement on Luca's character.

In the examples mentioned ("Sharks" and "Good guy or bad guy"), the subdiscussions opened by the children emerge from the problematization of something said by the interlocutor, but the role of the subdiscussion does not seem primarily that of repairing an embedded disagreement.⁷² Children seem to be exploring the "world" in which they are asked to think and act, through the initiation of a subdiscussion. In this sense, I suggest that the opening of *subdiscussions can be seen as an instance of exploratory move with which children make sense of the situation they are in*. Nathan, for example, seems to explore the meaning of stealing and to test his hypothesis that stealing is not always something bad. Interestingly, I remarked that, within my corpus, these types of subdiscussions were more likely to be integrated in the course of the interaction.

Furthermore, Perret-Clermont et al. (2014) suggested that children's standpoints are more "work hypothesis", given that children happen to take standpoints but also abandon them. Thinking of the "Good guy or bad guy" example, where the child seemed to be testing his hypothesis through the subdiscussion, I suggest that subdiscussions can be an opportunity for the child to test the validity of his or her interlocutors' position. The "hot and cold" episode shows also this aspect. At the beginning of the discussion about which object the children would bring to a desert island, a child (Davide) proposes to bring a blanket, even two blankets because it is very cold. Nathan, on his side, advances his idea to bring a swimming suit so he can swim around the island. Davide critically reacts to Nathan's argumentation, opening a subdiscussion about whether it is possible to swim given that it is cold. The subdiscussion is uptaken by the teacher who defends Nathan's

⁷² In pragma-dialectics subdiscussions are a possibility for the parties of a critical discussion to re-establish agreement over a proposition that lacked acceptability in the first instance. Hence, the function of the subdiscussion, according to pragma-dialectics, seems to be that of repairing a disagreement within an ongoing argumentative discussion.

proposition by arguing that probably, in Nathan's opinion, it is hot on the island. After the subdiscussion, Davide changes his standpoint, and he claims that he would also bring a swimming suit. In this case, Davide's standpoint (I would bring a blanket) can be seen as a "work hypothesis" and it changed after the subdiscussion where the idea of a warm weather seemed to win over the cold.

The introduction of issues and sub-issues

Some studies found that children contribute to argumentative discussions also by proposing issues or even sub-issues. Schär's contribution (2018a; 2021) has been largely discussed in this dissertation (cf. chapter 2, subsection 2.3.3; chapter 4, subsection 4.3.1.1). In particular, her typology of emergence of issues has been a starting point for the analysis of the emergence of subdiscussions of my corpus. Apart from introducing a third type of sub-issue that can emerge in children-adult argumentation (see Chapter 4, subsection 4.3.1.1), this thesis could delve into what is the "something" that is problematized in children-initiated subdiscussions. Schär already pointed at subdiscussions opened because of a misalignment in the interpretation of *endoxa*. In my corpus, I could systematically annotate the target of children's subdiscussions and I found that children recalled into question *data* more frequently than *endoxa*. My hypothesis for this was that the *datum* is a piece of information easily retrievable in the interaction, it is usually uttered (while the *endoxon* is often left implicit). However, this is not always the case. Further research could better address this aspect of children challenging factual pieces of information, whether the age plays a role, or how children understand facts.

Other scholars have investigated whether children answer the main *issue* proposed by the adult (Miserez-Caperos et al., 2013). They concluded that children do not always stick to it; instead, they open other *issues* that at first sight may seem irrelevant yet are indirectly linked to the *main issue*. Greco et al. (2018) point that when the *issues* proposed by children deviate from what is expected, or go against the adult's expectations, they are often "suppressed" or left apart in the adult-led discussion. Within the corpus of my research, where I focused precisely on a better understanding of the phenomenon of children opening *sub-issues*, I noticed that the teacher was quite sensitive to children's *issues* and *sub-issues*. However, sometimes it occurred that the child's intervention through the opening of a subdiscussion was perceived by the adult⁷³ as "disturbing", as the child was shifting topic, as "off topic". Although I do not exclude that subdiscussions can be used strategically (Wu, 2019; see chapter 2, subsection 2.3.4) and they can be used to shift the attention on a topic, this did not seem the case in my corpus. If the child's perspective is taken into account, the subdiscussion is not "off topic"; maybe it is "off topic for how the adult understands the topic", but nor for how the child understands it. Hence, my suggestion is that children's *subdiscussions can help adults to appreciate the child's understanding of the interaction*.

⁷³ NB: in my corpus the adult reference was not just the teacher (although she was the protagonist in many episodes of subdiscussions), but there were also the educators and the researcher.

I propose to better reflect on this aspect by presenting an example of subdiscussion that I had not the chance to propose in the previous chapter. This subdiscussion emerged during one of the pre-school activities organized by the teacher and the OPI with the objective to teach the concept of symmetry. The children were given a paper sheet with some images printed on it (such as a printer, a table, a ladybug, a door and so on). The task was to find the symmetry in the pictures and to divide them in half by attaching strings. After the activity was completed, the teacher guided a discussion with the children about the work they have done. At a certain moment, some children commented on the work of another child, Christian, who did not divide the door in half. The teacher, following the children's comments, started a discussion about whether what Christian did was right (*issue*). Some children replied that it was wrong, while Christian justified his work by saying that he did not divide the door because the door had a handle on one side (so the left side of the door would not correspond to the right side). The teacher supported Christian and, after some resistance from the other children, she reformulated Christian's argument to the other children in this way: "a door does not have two handles". Nathan immediately intervened objecting to this proposition: "yes, there are doors with two handles". This marks the emergence of a subdiscussion about whether doors have only one handle (*sub-issue*). The teacher for many turns ignored Nathan's comments.⁷⁴ Nathan insists and, at a certain point, even provides an example to support his sub-standpoint: he mentions that castle doors have two handles. When the teacher hears this, she replies that they must stick to the image of the door printed on the paper sheet (which is a common interior door). Here we are. The teacher did not accept the subdiscussion because apparently it was perceived that the child wanted to shift the focus of the discussion, while the teacher had in mind her idea of the discussion about symmetries. By observing her utterances in the following turns in the interaction, she appears to be directing the children to understand and agree with the fact that the door on the paper sheet is not symmetric because it has one handle (so the left side does not correspond to the right side). Subsequently, Nathan becomes a bit capricious and insistent: he keeps saying that if the door had two handles it would be symmetric. Eventually, after several turns, the teacher concedes to Nathan's proposition, repeating it: "if the door had two handles it could be symmetric, but – she adds – this is not the case".

My intention when describing these episodes is not to evaluate the adult's behavior, but to try to understand what happens in the interaction. What this example brings to surface is the fact that sometimes children's subdiscussions can be perceived as disruptive and far from what the adult expects according to his/her agenda. However, as this case showed, the child's intervention is not that far: a possible interpretation may be that the

⁷⁴ In the video recording, it is evident that the teacher is avoiding Nathan. It must be said that Nathan is usually a very talkative child at the kindergarten. He is one of the eldest children and normally, he always intervenes in discussions, expressing his positions very frequently, also interrupting others. It is not the first activity where the teacher explains, at the beginning, that she wants to give space and to listen to all the children; so, when Nathan intervenes, she sometimes pretends not to listen to him. At times, she even tells him explicitly to be quiet because she wants to dedicate attention to the other children who normally speak less.

child wanted to challenge the teacher and his classmate Christian (who technically did the exercise correctly according to the teacher) by imagining another door that could have a symmetry. After all, the objective of the activity was learning how symmetry works.

The role of the adult in children-adult argumentation

The role of the adult is another facet that has been considered for the study of children-adult argumentation. From the literature, it emerges that adults usually take a leading role in a discussion and in particular teachers are seen as “gardeners” who “control the development of the discussion” (Greco Morasso et al., 2016). Even in situations with an organized setting where teachers are supposed to “help students develop their points of view without interfering too much with the content of their discussion, what happens is that the teacher’s interventions are frequent and clearly steering the discussion” (Greco et al., 2017, p.207). This is an aspect that this dissertation has specifically investigated. In the corpus, the teacher or the educators controlled the development of discussions and subdiscussions, and they chose the threads of conversation to follow. “The door with two handles” case just presented in the previous paragraph is one example. “The wind” example (Chapter 4, subsection 4.3.3.3, Example XII) is another instance where it is particularly evident how the teacher controls the discussion in line with her objectives: she strategically closed the subdiscussion about the wind causing children to fly over roofs, in order to start the activity planned for that day. Even in the cases of subdiscussions integrated in the continuation of the interaction, it was the teacher who decided to take into consideration the child’s contribution. Only the example of “The rocket” (Chapter 4, subsection 4.3.3, Example XV) showed how a child integrated a previous child-initiated subdiscussion, by using it as background knowledge for his new argument. Apart from this interesting example, it is usually the teacher who leads the threads and sub-threads of the argumentative interaction.

According to recent studies, moreover, children’s argumentation is often interrupted by the adult (Perret-Clermont et al., 2019; Mehmeti & Perret-Clermont 2016). In my research, “interrupted” meant that the adult did not pursue the subdiscussion opened by the child. It is noteworthy to remember that, in my corpus, 7 children-initiate subdiscussions (out of 61) were not uptaken by the adult, and 14 did not reach the concluding stage. Hence, a third of children-initiated subdiscussions were abandoned. The interruption, in most cases, was due to the difficulties of managing an activity with fourteen children.

However, my research also showed many cases where the adult took up children’s subdiscussions (and I illustrated the different types of uptakes that the adult performed in the corpus – cf. chapter 4, subsection 4.3.2). It could be interesting to reflect on what the adult does with these different uptakes⁷⁵. When the adult enters the subdiscussion by taking an opposing sub-standpoint (a), he/she might be expressing disagreement with the child’s view, or he/she might be encouraging the child to test the sub-standpoint. When

⁷⁵ I would like to thank Anda Fournel, who encouraged these reflections.

the adult enters the subdiscussion by taking a supporting sub-standpoint (b), he/she is encouraging the child's intervention and thinking. When the adult uptakes the subdiscussion without taking a sub-standpoint (c), he/she attempts to help the discussants (i.e., children) solve their dispute. Finally, when the adult reacts to the subdiscussion by opening a new subdiscussion (d), he/she might be expressing a misalignment with the child's interpretation, or he/she might be helping the child to further question his/her idea. Anyway, these reactions of the adult support the importance of the role of the adult in children-adult argumentative interactions.

It must be said that the main adult interlocutor in my corpus was the teacher of the classroom, who was very committed to creating a safe "thinking space" for the children to express their ideas (cf. Perret-Clermont, 2004). This echoes the important active role of teachers and other educational figures in promoting a certain "architecture" of the social relationships allowing for the development of cooperative social skills and the development of thinking (Perret-Clermont, 2011).

This work on children's subdiscussions and their consequence on the argumentative interaction not only underscores the importance of creating a secure space, but it also sheds light on the importance of an active listening of children's contributions. Discrepancies between what the teacher attempts to do, what she wants the child to do, what the child understands of this and what the child actually does are frequently acknowledged (see for example Perret, 1987; Giglio, 2010; Mehmeti & Perret-Clermont, 2016; Kohler, 2020). This research on subdiscussions does not intend to evaluate teachers (or other educational figures, even parents) and tell them what to do with the unexpected opening of a subdiscussion by a child, whether these unintended consequences are desirable or not (cf. section 5.1), but to raise awareness of the fact that they are occasions allowing to acknowledge that the child understands something in the ongoing interaction differently from how the adult does or expects him/her to.

6. Conclusion

This doctoral thesis arises from the intention of further exploring preschool children's argumentative contributions.

In the domain of children's argumentation, there has been an important debate about the emergence and development of argumentative discourse in children. Recent studies, however, have highlighted how young children actively participate in argumentative discussions (for a review, see Bubikova-Moan & Sandvik, 2023). Moreover, it has been demonstrated how considering argumentation as a dialogical process provides a deeper understanding of children's argumentative contributions (Perret-Clermont et al., 2019). Building on this line of research, this dissertation concentrates on the under-investigated phenomenon of children opening subdiscussions within argumentative interactions with peers and adults (cf. Schär, 2021). In argumentation studies, the concept of subdiscussion refers to a discussion embedded within another discussion, which emerges when a speaker calls into question some aspect of the argumentation of their interlocutor (cf. Krabbe, 2003; van Eemeren, 2018).

Considering my original background in Applied Linguistics, this study was primarily conducted from a linguistic perspective, with the idea that exploring the phenomenon of subdiscussion in children-adult argumentative interactions could also provide insights about children's participation in argumentation from a psychological and educational point of view.

The research was grounded mainly in a linguistics-based approach to argumentation, specifically pragma-dialectics, where the concept of subdiscussion is recognized. However, the literature review (cf. chapter 2, section 2.3) highlighted that subdiscussions are often regarded from an ideal theoretical viewpoint. Little empirical research mentions subdiscussions and, to my knowledge, it focuses exclusively on their emergence.

Furthermore, in argumentation studies, subdiscussions are seen as having a crucial role in re-establishing agreement among discussants at the level of the starting points of the argumentation, which is necessary for pursuing the resolution of the main discussion in which the subdiscussion emerged. In the specific context of children-adult argumentation, where misalignment at the level of the premises appears to be common (cf. Greco et al., 2018), it becomes particularly interesting to investigate children opening subdiscussions because this event marks the fact that the child has a different starting point from the adult. Finding out what happens after the emergence of a subdiscussion becomes relevant. This dissertation, therefore, achieves a dual objective: on the one hand, it addresses a gap in the literature on argumentation studies; namely, it provides an empirical contribution to the domain of argumentation theory by exploring a concept that does not seem to have received much attention yet, i.e., the subdiscussion, and by illustrating how it unfolds in a certain educational context. On the other hand, the observation of subdiscussions in children-adult argumentative interactions allows for a deeper examination of children's

reasoning and interactive strategies in argumentative discussions, offering reflections about children's engagement and agency in argumentative discourse.

The research questions were articulated in order to understand what happens when a subdiscussion is opened by a child in an interaction where an adult is present. The first focus was on examining the whole "life cycle" of a subdiscussion: emergence, development and conclusion (RQ1). The second focus was on observing the consequences of the subdiscussion on the interaction in which it emerged (RQ2), namely studying how the adult responds to the child's initiative and whether children's subdiscussions somehow impact the course of the interaction for how it was organized by the adult (cf. chapter 2, section 2.5).

The analysis focused on a corpus of discussions between three-to-six-year-old children and their teachers during their ordinary activities at a kindergarten in Italian-speaking Switzerland.

The subdiscussions identified in the corpus were reconstructed and analyzed adopting the pragma-dialectical theory of argumentation (cf. van Eemeren, 2018), combined with the Argumentum Model of Topics (AMT – cf. Rigotti & Greco, 2019). In line with the interdisciplinarity proposed in this work, insights from sociocultural developmental psychology were also integrated for a more in-depth understanding of the argumentative interactions (cf. Muller Mirza et al., 2009).

The main results show that children frequently initiate subdiscussions by questioning the material-contextual component of arguments presented by both adults and peers. The *datum* (the factual premise) is the most sensitive starting point, challenged more than the *endoxon* (the cultural premise presumably shared by interactants). Notably, children also initiated subdiscussions by questioning the main *issue* under discussion, which extends the list of agreements over which discussants can "subdiscuss" (cf. Krabbe, 2003; chapter 2, subsection 2.3.2). This finding about the *issue* as a target of subdiscussion could be relevant also for other argumentative contexts.

Furthermore, while subdiscussions often emerge as counterarguments, they deserve a separate attention since they entail a dynamic process of criticisms and replies which influence the overall argumentation. Besides, subdiscussions targeting *issues* do not emerge as counterarguments.

Most subdiscussions initiated by children were accompanied by justifications. In my hypothesis, this was likely to mitigate the perceived disruption caused by the unexpected opening of the subdiscussion. Although it was not observed in the corpus a correlation between the presence of a justification and the acceptance of a subdiscussion, it is noteworthy that children often provide justifications for their criticisms. Further research shall expand this aspect. Moreover, it could be interesting to observe whether also adults feel the need to justify their subdiscussions when they initiate them with children. This could enhance the understanding of the legitimacy of who can open *issues* in certain communicative interactions.

Concerning the development of children-initiated subdiscussions, our data show that subdiscussions are generally taken up by other participants (adults and/or other children).

Adults' responses to children's subdiscussions were categorized into four types: taking an opposing sub-standpoint (i.e., the adult enters the subdiscussion by opposing the position of the child); taking a supporting sub-standpoint (i.e., the adult enters the subdiscussion by supporting the position of the child, sometimes even providing arguments in favor); taking no sub-standpoint (i.e., the adult does not take a position in the subdiscussion but acts like a mediator to help the interlocutors reach an agreement); opening a new subdiscussion (i.e., the adult challenges something in the argumentation provided by the child in his/her subdiscussion). This categorization offers a preliminary framework for understanding adults' responses to children's argumentative contributions, a facet that is often overlooked in children's argumentation studies.

Although the focus of this research was on how the adult takes up children's subdiscussions, preliminary observations of my data suggest that children employ similar uptake strategies, except for the "mediation" type of uptake. Further research could explore children's responses in greater detail. It could be enriching, for instance, studying whether children uptake subdiscussions in the same way if they are initiated by adults or by peers.

The uptake of a subdiscussion did not always lead to its conclusion. Approximately one-third of the subdiscussions in the corpus were abandoned, which reflects a deviation from ideal argumentative models due to the complexities of real-life interactions. One objective of this thesis was to shed light on the whole process of the subdiscussion, from its beginning to its end. It needs to be highlighted that the abandonment of a subdiscussion can lead to the suspension of the main argumentative thread, which in some argumentative practices can be problematic.

When subdiscussions reached a conclusion, three outcomes were observed: (1) the subdiscussion did not end in favor of the initiator and the main standpoint is reaffirmed; (2) the subdiscussion ended in favor of the initiator, shifting the main standpoint; (3) the subdiscussion concluded in favor of the initiator, but the main discussion is abandoned. The first two cases represented the outcomes foreseen in the ideal way of resolving argumentative discussions (cf. van Eemeren, 2018), while the third one represented a deviation due to a violation of a rule from the code of conduct of this ideal procedure (ibidem).

The dissertation also investigated the impact of children's subdiscussions on the unfolding of the interaction, building on a design perspective of argumentation (cf. Aakhus, 2007; Jackson & Aakhus, 2014; Jackson 2015). In particular, it was proposed to observe children-adult interactions as a space organized by the adult to discuss certain *issues*, and children's subdiscussions as unintended consequences, i.e., unexpected deviations from the idea of the discussion that the adult might have in mind during pre-organised activities.

The analysis indicated that, in most cases, the interaction resumed as if the subdiscussion had never occurred, like subdiscussions were parentheses within the discourse. However, in some interactions, linguistic traces of previous subdiscussions were found. In these cases, the subdiscussion was considered as integrated in the course of the ongoing

discourse. This happened either through the adult's decision to integrate the subdiscussion or through the incorporation of the subdiscussion into the background knowledge recalled in subsequent argumentative moves.

Our findings, hence, suggest that children's subdiscussions can have enduring consequences that shape the development of discourse, so they can be seen as unintended consequences of the space (i.e., the discussion) that the adult has created.

How do these findings about children's subdiscussion at a kindergarten setting contribute to the literature on argumentation studies?

First, the focus on the life cycle of subdiscussions offers a novel perspective that expands existing understandings of argumentative interactions. Conceptualizing subdiscussions as complete processes with their phases of emergence, development and conclusion and emphasizing the importance of examining each phase allows to gain a holistic understanding of argumentative exchanges, which enriches our comprehension of how argumentation works.

The identification of the material-contextual component as a common target of subdiscussion underscores the importance of examining specific aspects of argumentation that are particularly susceptible of criticism. This insight prompts further reflection into the nature of subdiscussions and their implications for argumentative practices across different contexts.

Furthermore, the exploration of adults' uptake of children-initiated subdiscussions highlights the ways in which adults engage with children's argumentative contributions. This understanding of adults' responses to children's subdiscussions contributes to our knowledge of the role and responsibility of adults in facilitating argumentative exchanges among children (cf. Chapter 5, section 5.2).

The analysis of the conclusion of children's subdiscussions offers valuable insights into their implications for the resolution of the overarching discussions and it provides a better understanding of the trajectory of argumentative interactions.

Finally, the findings on the consequences of subdiscussions on the interaction in which they emerge underscore the importance of considering the fluidity and complexity of argumentative interactions and, arguably, shed light on a more dynamic facet of the concept of subdiscussion. The fact that subdiscussions can impact the development of the interaction offers valuable insights into the dynamics of argumentative discourse, specifically, into how argumentation can shape discourse. Moreover, the potential consequences of subdiscussions appear to depend on the flexibility of the discussion space organized by the adult and, even more, on the flexibility of the interlocutors, in particular when they have a leading role.

Perspectives in psychology and education

Observing children's subdiscussions offers also a perspective to enrich our comprehension of children's reasoning and participation in argumentative situations, which is an important topic for psychology and education.

First of all, the fact that children open a subdiscussion challenging the premises of their interlocutor's argument shows the process of argument evaluation performed by the child. Children listen and assess their interlocutor's utterances, and the opening of a subdiscussion denotes that the child's interpretation or understanding of the aspect problematized is different from that of the adult. This is important both for analysts but also for practitioners.

Our study of children's subdiscussions confirms how argumentation is co-constructed between the interactants (e.g., "Pikachu" - chapter 4, section 4.3.1.4; cf. also Perret-Clermont et al., 2019).

Moreover, many instances in the corpus underscore how children can interpret the situation differently from the adult. Following Iannaccone et al. (2019), I suggested that subdiscussions can be cues enabling to observe the misalignment between child and adult and the "possible worlds" in which they situate themselves in their thinking and making sense of the interaction. Interestingly, the subdiscussion is also the means through which the interactants can attempt to adjust the misalignment.

Subdiscussions can offer also an interesting perspective to observe "explorative thinking" (Iannaccone et al., 2019). When children open subdiscussions, they might be testing their ideas and the "world" in which they are asked to think and act ("Good guy or bad guy", Chapter 4, subsection 4.3.2.2). In this sense, I advanced the hypothesis that the opening of subdiscussions can be seen as an instance of *exploratory move* with which children make sense of the situation they are in.

Finally, by observing whether and how adults take up children's subdiscussion, this work definitely confirms the important role of the adult in children-adult argumentation. This work highlighted that sometimes subdiscussions are perceived by the adult as "off topic". This thesis attempts to clarify that this is not always the case. Without denying that subdiscussions can have a strategic purpose, in the corpus examined, children opened *sub-issues that were pertinent to them* (e.g., "The door with two handles", chapter 5). If the child's perspective is considered, these subdiscussions perceived as disruptive are not "off topic"; maybe they are "off topic for how the adult understands the topic", but not for how the child understands it. This insight invites reflection about the flexibility of adults' schemes and expectations in educational settings, but also reflection about children's agency in discourse. Many studies have recently advocated that it is important to create a secure space for children to express themselves (cf. "thinking space" by Perret-Clermont, 2004). What does it matter if children manage to open *issues* and *sub-issues*, but these are not understood and further developed? The present dissertation sheds light on the fact that it is not only important to let children express their ideas but also to actively listen, try to understand and follow their contributions.

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Appendix I – Consent form (adult participants)



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Accordo di partecipazione a un progetto di ricerca

Io sottoscritto/a do il mio consenso a partecipare al progetto di ricerca "An interdisciplinary study of sub-discussions in children-adult argumentation" condotto da Elisa Angiolini sotto la co-supervisione del prof. Antonio Iannaccone (Università di Neuchâtel) e della prof.ssa Sara Greco (Università della Svizzera Italiana).

Accetto di partecipare e do il mio consenso per essere intervistato/a e osservato/a in conformità con il suddetto progetto. Comprendo che la partecipazione allo studio è una mia scelta e che posso decidere di non partecipare. Comprendo che posso cambiare idea sulla partecipazione in qualsiasi momento dello studio e che posso anche interrompere la partecipazione in qualsiasi momento.

Accetto di essere video-registrato/a e capisco che scegliere di non essere video-registrato/a non influenzerà la mia partecipazione al progetto. Sono consapevole che i dati saranno trascritti e che la mia identità e tutti i dettagli identificativi saranno mantenuti anonimi. Il ricercatore si impegna a rispettare la riservatezza dei video, che saranno al massimo visti solamente da colleghi di fiducia sotto la guida dei supervisori scritti sopra. Il ricercatore si impegna a utilizzare le informazioni di cui sopra solo per gli obiettivi del progetto di ricerca e a rispettare la protezione dei dati.

Consenso del partecipante

Io sottoscritto/a autorizzo la ricercatrice (Elisa Angiolini):

- A realizzare delle video e audio-registrazioni.
- A utilizzare questi dati per gli scopi del progetto di ricerca. Questi dati saranno trattati in modo anonimo, confidenziale e in conformità alle norme sulla protezione dei dati.
- A presentare i dati raccolti in modo anonimo a studenti (durante un corso o un seminario) o ad altri accademici del settore (durante un workshop, un congresso o una conferenza).

Nome :

Luogo, data :

Firma :

Firma della ricercatrice:

Appendix II – Consent form (children)



UNIVERSITÉ DE
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Neuchâtel, 06.12.2021

A chi di competenza

Oggetto: domanda di realizzazione di un progetto di ricerca universitario

Gentilissimi,

Elisa Angiolini
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Mi chiamo Elisa Angiolini e lavoro a una ricerca di dottorato all'Università di Neuchâtel, sotto la guida del prof. Antonio Iannaccone (professore all'Istituto di Psicologia e Educazione di Neuchâtel) e della prof.ssa Sara Greco (professoressa presso l'Istituto di Argomentazione, Linguistica e Semiotica dell'Università della Svizzera Italiana).

Sulla base di ricerche condotte negli ultimi anni all'università di Neuchâtel e di Lugano, nel mio progetto mi interesso all'argomentazione di bambini in età prescolare (dai 3 ai 6 anni); in particolare, mi appassiona osservare le interazioni tra bambino e adulto. L'obiettivo principale della mia tesi è esplorare come i bambini partecipano a delle situazioni di discussione con l'adulto, talvolta mettendo in questione quello che l'adulto dice o propone. Per osservare questo, vorrei realizzare dei video di situazioni quotidiane in cui i bambini partecipano e parlano liberamente. La scuola dell'infanzia sarebbe un luogo ottimale per il mio studio, poiché i bambini vi passano molto del loro tempo e partecipano a tante interazioni, anche con le maestre.

Mi permetto dunque di contattarvi per chiedere la possibilità di osservare i bambini durante le attività quotidiane all'asilo e di filmare le interazioni tra i bambini e le educatrici che mi daranno il loro consenso. A questo proposito, sarà mia premura preparare, con il vostro eventuale supporto, i documenti necessari per ottenere le dovute autorizzazioni dei genitori dei bambini e delle maestre interessate a questa attività. Sarei anche disponibile a un momento di incontro con loro per parlare della ricerca e rispondere a eventuali domande o dubbi.

Inoltre, il progetto, che è già stato approvato dalla Commissione Etica dell'Università di Neuchâtel, sarà realizzato nel pieno rispetto del codice deontologico della ricerca in Psicologia e Scienze dell'Educazione. I dati che raccoglierò saranno anonimizzati e trattati in modo confidenziale (al massimo visti solamente da colleghi di fiducia, sotto la guida dei miei supervisori). Le trascrizioni dei dati anonimizzati (e non i video) saranno utilizzate solo per scopi di ricerca nel quadro della mia tesi, attività di insegnamento, articoli scientifici e presentazioni a congressi e conferenze scientifiche. Solo nel caso in cui fosse opportuno

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mostrare qualche estratto di video, sempre nel quadro di attività scientifiche, veglierò assolutamente a che i visi dei bambini siano sfuocati utilizzando programmi di video editing.

Rimango interamente a disposizione per fornirvi maggiori informazioni e aggiornamenti su questa attività di ricerca e sui suoi risultati, che spero possano dare un contributo nell'ambito dell'educazione della prima infanzia.

Ringraziando in anticipo per il tempo dedicatomi fino a qui e in attesa di un vostro gentile riscontro, vi prego di accettare i miei più cordiali saluti.

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Io, genitore di _____

accetto che mio figlio, con la classe S.I. del Centro Infanzia Arnaboldi partecipi alla ricerca sopraindicata con foto e video (mascherati) che saranno utilizzati **ESCLUSIVAMENTE** allo scopo di formazione.

Data _____

Firma _____