

Research Article

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"A border is a Ban" - Students' Conceptual Understanding and Experiences of Europe's Borders and Boundaries

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Abstract

In this paper, we examine the conceptual understanding and experiences that students in German secondary schools have of boundaries. For our research we conducted qualitative interviews and surveys (interviews n=20; surveys n=21) with children (aged 14-17) born both in Germany and with refugee backgrounds. We asked for the children's conceptual understanding of the emergence and function of boundaries and their personal encounters with them. We studied the results of these interviews using qualitative content analysis to learn more about the conceptual understanding and experiences of students. Our findings on the emergence of borders show that students have limited understanding of boundaries and differing spatial concepts that exist for them. We also observed interesting distinctions between personal experiences of borders. The results may provide a base for further research and development in terms of conceptual-change-based methods for geography education on the topics of territories, borders and boundaries.

Keywords

Borders; Political Geography; Geography Education; Europe; Conceptual Understanding

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We live in “a very bordered world” (Diener and Hagen, 2012, p.1). Borders and boundaries are a central feature in most of the recent political debates and global issues. Migration, free-trade-agreements, separation, security issues and the related border crossings currently dominate daily news and are usually associated with the concept of territory and its effect on the politics globally. Borders are the perfect example for which to study the inextricable connection between space, society and power, and to make the social construction of space visible. Geography education in schools is therefore the ideal avenue by which to explore this topic and its perspectives. Only a broad understanding of boundaries in all their aspects enables students to take part in public debates such as Brexit, the EU-Turkey Deal on Refugees or Trans-Atlantic Free Trade Agreement (TTIP).

The results of our research display concepts and experiences that German students and students with refugee backgrounds have about borders and boundaries. These findings will enable a foundation for the development of conceptual change-based methods in educating about borders to be built. Borders and boundaries are key subjects in political geography (Agnew et al. 2015), especially with regards to their function in the formation of regions (Rees and Legates, 2012) and ordering spaces. It is difficult to distinguish clearly between the terms border and boundary. Anne-Laure Amilhat Szary (2015, p. 13) highlighted that the term "border" is both a semantic limitation and an extension of the term "boundary". "The term "border" refers more to the political dimension and territorialized powers. For this reason, we use the term "boundary" for border demarcations of all kinds and thus also include political "borders" in this definition, while we use the term "border" only when explicitly referring to political borders. For many, their main experience of borders might be “by confronting or crossing them” (ibid.). However, less obviously, it is daily discursive practices that combine interpersonal activities with institutional contexts (Anderson, 1983), and thus form our understanding of territorial affiliations and boundaries. We asked students about their personal experiences, as well as individual concepts of the continental boundaries of Europe. We chose those continental boundaries as the research subject for two main aspects: firstly, in contrast to allegedly solid national borders, the continental boundaries are even more vague and controversial as “Europe” is a political concept as well as being defined by physical features (Schultz, 2003). Secondly, such scientific controversy is not part of secondary curricula and rarely mentioned in school materials (ib.). However, various authors (Schultz 2013; Budke and Schindler 2016, Seidel and Budke 2017) highlight there are no controversial depictions of the boundaries of Europe in current German geography textbooks and that borders appear uniformly in the Urals and only a limited number of books mention the definition of these borders "by scientists" at all. Moreover, even in these books one demarcation is used. Consequently, in the course of current developments this leads to interesting questions.

This article consists of four consecutive parts: we initially explain the theoretical framework in two steps. Firstly, we provide an overview of current research into borders in human geography. Secondly, we give a brief overview of the thematization of boundaries in geography education and present a model for dealing with boundaries from the perspectives of different spatial concepts. In the second section we explain the

sampling process and methodology, which primarily consists of qualitative interviews. The results are then presented in the third section, which are shown in four subsections: "Border definitions"; "Border emergence"; "The borders of Europe" and "Border experiences". In the final section the results are discussed alongside the theoretical framework.

Theoretical Framework: Borders and Europe in Geography and Geography Education

The theoretical frame for our approach is partitioned into two sections. Section one focuses on recent definitions of, and research in human geography, on the subject of borders in human geography in general and the borders of Europe in German geography education in particular. More precisely, this part presents concepts for the emergence of borders and summarises current developments in political geography with regards to the personal experiences of children and becoming geopolitical subjects, which might influence their conceptualizations of borders. These perspectives and conceptualizations are necessary for a comprehensive understanding of borders. The presentation of the borders of Europe in German geography textbooks is also important for the classification of pupils' concepts in later data evaluation. The second part of this section (2.2) presents a theoretical framework applied by the authors to conceptualize borders in these perspectives for geography education.

Current Understanding on Boundaries in Human Geography and Europe

Borders are not a "natural" phenomenon (Diener and Hagen, 2012, p.1) - they emerge because groups of humans define specific places on earth as "ours". The practice of defining borders is strongly connected to symbolic acts that include drawing and displaying maps; as well as material actions like building walls or controlling people in certain places. Consequently, territories and borders form indivisible connections. The invention of such "bounded thinking" in the context of modern nation states dates back to at least to the Treaties of Westphalia in 1648 (Amilhat Szary, 2015, p.16), which follows the notion of a group of people inhabiting a country and believing themselves to be a distinct community (Paasi, 1996). These concepts are crucial as they changed territories from land "owned or controlled by the ruler" into "the limit or extent of the ruler's political power" (Elden, 2011, p.3). This conception of spatial political administration proved quite prosperous; the territorial nation state became the usual and most common concept for division of political space (Popescu, 2013). In fact, excluding Antarctica, 193 sovereign states recognised by the UN are present currently across the world. Even though supra-national organizations and smaller sub-state regions seem to become more important in organizing political space this does not cause borders to disappear. Instead, both developments focus changes in the specific geographical status quo of political units within them (Murphy, 2013). This raises the question of how such spatial thought became so successful and continues to exist. Borders as a human concept are usually not the sole subject of research in the field of geography. In fact, borders are bound to the concepts of territories, identities and power. Lately, the discussions on this issue have focused on education and citizenship (e.g. Pykett 2009, Staeheli and Hammett, 2010; Kallio and Häkli 2011), which is underpinned by the role

of the nation state as the main scale for discussions on territoriality and borders. In the context of European borders, this leads to questions surrounding the broader aspects or adoptable ways of engaging the topic.

One approach is the concept of spatial socialization understood as “the specific processes by which peoples and groups come to be socialized as members of specific territorially bounded spatial entities” (Paasi, 2009, p.226). First developed with a focus on nation states this idea might be also be applicable for the bigger scale of socializing European or more precisely EU-Citizens. Textbooks, atlases, history and geography education, and the media play an important role within this role by communicating the dominant territorial knowledge and thinking. More broadly, formulated and combined with the question for knowledge production, Murphy addressed (2013, p.1217) the understanding of institutions, practices and discourses legitimizing specific territorial conceptions of the state with his “regimes of territorial legitimation”. Contrary to these conceptions of top-down processes, Kallio showed that children themselves “make sense of broadly politicized processes that enter their lives from subjective perspectives” and therefore “new geopolitical subjects and worlds get established as children mobilize broadly politicized issues in their lived worlds in particular ways” (2016, p.181). Her findings suggest that the geopolitical conceptions of children build an ideal fundament for “reworking [...] the types of conceptual frameworks, methodologies and empirical examples that have previously delimited critical interrogations of geopolitics” (Jones and Sage, 2010, p.316).

In recent research focused on geographical education there have been various studies addressing spatial concepts and knowledge of pupils concerning Europe (Schmeinck 2007). Studies such as “Cognitive Maps of Europe: Geographical Knowledge of Turkish Geography Students” (Sudas and Gokten 2012) focused mainly on topographical knowledge and considered geopolitical aspects such as the question of Turkey's marginal association to Europe. However, one result of this project is that there are two main ways of drawing and defining Europe by the participants were identified. One group focused on physical features bordering Europe along Istanbul and the Canakkale Strait, while the second definition of Europe saw it as an Idea and process following specific economic developments. As another survey with a qualitative approach (“Complete the sentence: Europe is ...”) showed that these results can be complemented by concepts such as “hope”, “the future”, “a family”, “a union of many countries” or “a theoretical construction” (Mentz, 2010, p.63).

Theoretical Conceptualization of Borders as a Topic in Geography Education

For this analysis, we aimed to conceptualize borders as elements of space, which made a definition of space necessary. Therefore, we used an approach from four different conceptual perspectives: space as a container, space as a system of spatial relations, space as perception and space as a social construct (Wardenga, 2002, p.8f.). Those four differing viewpoints build the fundament of the German education standards for geography in secondary schools (DGfG 2017). Borders are a part of those perspectives and are thereby considered from different angles here. From this point, we

developed a framework for the analysis of borders in educational contexts (such as teaching, textbooks and/or other media, as well as student interviews). We used this model to distinguish between different perspectives on borders, which is explained here through the example of European borders:

1. Container-Border: From this perspective space is a set of containers with specific contents (Agnew, 1994) and borders are the "natural" frames of these containers. Through this view, the continent of Europe is one of those containers. Its borders have a clear delineation in space. Natural features like the Ural, Caucasus and the Caspian Sea might define it. There are no references to its anthropogenic characteristics. This viewpoint defines borders as structures rather than processes.

2. Borders in a system of spatial relations. From this point of view, space consists of material, natural and artificial, immobile and mobile objects, connected to each other. The focus of this perspective lies in the analysis of those connections and the exchange between different objects. Hence, European continental borders are inside nation-states such as Russia and Turkey or in the Sea. Borders, considered by this angle, do influence connectivity of and exchange between places. They influence the mobile objects by letting them pass or block them. For example, in economic geography borders are influential as location factors.

3. Borders as perceptions: Important for this concept is that it requires a second order observation. The concept does not address a border directly as an object but observes perceptions of the border. This perspective addresses two different aspects of perception. First, there are direct, personal and individual experiences at borders, and second is the meaning of the border on an individual level. This means that the border defines situation and identity formation as well as it is justifying personal actions. The perception of the borders of Europe) is a question of perspective and position (inside/outside), belonging (part of/not part of) and opinion (good/bad). The functions of the border in this view are primarily representational and its embodiment and illustrations influence the perception of viewers. Consequently, borders are considered to be strongly connected and an elementary aspect of the field of identity formation. The consequences of this personal positioning lead to the fourth concept.

4. Bordering as a product of social construction: The border here "can be understood as a process or a verb in the sense of bordering" (van Houtum, 2005, p.672), an instrument of territoriality and identity construction is the centre of this perspective. The question is, by whom, how, from where and when, in which way is the border constructed and what are the consequences of these borders? Every analysis from this point of view has been concerned with the human practices and processes addressing the border. In the case of Europe in education, this could include consideration of if and by whom Turkey might be defined as an Asian state, and what this means for possible EU-membership. For a full understanding of borders from this perspective students should be able to name stakeholders as well as practices, the connected conflicts between different actors. And to be able to define scopes in which the borders are effectively influencing the social construction of space. The following table summarises these four perspectives:

Table 1

Borders as elements of different conceptions of space (Seidel & Budke 2017)

<p>1. Container-Border Description: Space is a physical-material container, the border delimits this container, it is a touchable object on the ground. Function of the border: edge of a certain space, line of control and administration. Leading questions: Where is the border located? What form does the border take? How permeable is the border? What administrative relevance does it have?</p>	<p>2. Borders in a system of spatial relations Description: objects in space stand in relation to each other and form space by their distributions and connections, borders are elements in this space. Function of the border: influencing exchange and connections. Leading question: How does the border influence the structure of space and its exchange- and connection-patterns?</p>
<p>3. Borders as perceptions Description: individuals and groups perceive space in different ways through their perspectives, which also applies to borders. Function: the border is an element of identity formation and is perceived individually Leading questions: Who perceives the border from where and when and how this influences individual behaviour?</p>	<p>4. Bordering as a process of social construction Description: space and its relevance are the product of human behaviour and communication, which develop and change over time. Function: the border is the sum of all human actions connected to practices of borders and the tools of spatial identity formation. Leading questions: How, in which ways and by whom, and for whom or what is the border constructed, and what are the consequences?</p>

For geography education it is important to not primarily focus on space as given containers or systems of spatial relations, but from different perspectives in which borders are perceived as social constructs. A holistic approach to geography as a subject must combine all four conceptualizations of space. Therefore, borders as an example of the social construction of space and spatiality (Reuber 2014, p. 183) should be urgently viewed from the perspective of the third and fourth concept. Only then will students be prepared to take up position in social and political debates that discuss borders. This understanding of borders is therefore necessary as part of a political education within the subject of geography. It is only by understanding boundaries as constructions, based on human actions and communication, that pupils are able to comprehend and understand one-sided forms of representation such as the description of containers as constructions. For this reason, the purpose of the following survey is to primarily record pupils' conceptual understandings and identify possible misconceptions of borders. Such possible misconceptions should then be taken into account in contemporary geography lessons and be counteracted by appropriate approaches such as linkages to the right knowledge and experiences of the students.

Methodology

This article presents the results of a study primarily based on qualitative interviews. The following section outlines the methods used and the sample data.

Research Design

Following recent migration patterns an increasingly heterogeneous student body that has a variety of migration backgrounds and experiences as refugees has brought a multitude of different experiences and concepts about spatial borders into school classes. For these students, their personal definitions of European borders may be an important part of their own identity. Borders and their deconstruction can be used as an example of how students could learn about the social construction of space, identity politics and human territoriality. Schmeinck (2013) found that intercultural group- and peer-learning is effective in building knowledge and understanding of Europe. The aim of this research is to present differing experiences of borders and thereby offer evidence for conceptual changes in geography education, which could lead to new perspectives and approaches for a complex understanding of borders in their varying spatial significances.

The primary objective of this study is to gain a qualitative overview of the concepts and experiences students have about borders in general and more specifically of European borders. The central hypothesis was that heterogeneous biographical backgrounds will result in divergent concepts and experiences of borders. It was assumed that growing up in countries far away from Europe would result in a rather "outsider" perspective when compared to growing up in the centre of the Schengen Area. Consequently, we formulated the following research questions:

1. How do the students define borders?
2. Which concepts regarding the emergence of borders do the students formulate?
3. Which concepts of spatial borders are students familiar with?
4. What are students' personal experiences of borders, and particularly border crossings?
5. Which spatial concepts of the borders of Europe do the students develop and how do they differ?

Conceptual understanding is based on the model of educational reconstruction (cf. Kattmann et al., 1997). In the sense of this model, learning is understood as a conceptual reconstruction with regard to the revision, extension and enhancement of the pre-instructional concepts of learners. Reinfried (2010, 16) explained that pupils' human geographical concepts are particularly influenced by subjective experiences of space. On the basis of a literature analysis, the study found that young people's human geographical concepts are characterised by vague, subject-related knowledge and are also often poorly developed. In addition, these subjective concepts of students deviate greatly from scientific definitions and terminologies. In this respect, it seemed sensible to deal in particular with these subjective experiences and their connection with the pupils' concepts. The partly inaccurate and, in some cases, false conceptual understanding pupils' have developed provides an argument (cf. Vosniadou 2013) for

making students more aware of scientific approaches. With a focus on the educational reconstruction model (cf. Kattman et al. 1997), the data collected here provides a foundation for comparison with scientific content and definitions, and for designing learning content on this basis.

Data Collection Tools

The main survey undertaken by this study was based on episodic interviews (Lamnek, 2010), thematic drawings on to maps and interviews focused on student's conceptual understanding and experience of borders. The interviews consisted of four sections, or episodes, which were adjusted for each interview. The sections also framed the qualitative analysis undertaken following the interviews.

Section 1, Border definition: A focused interview on the individual's definition of borders. The questions asked were: "What is a border?"; "What do borders look like?" and "Why do borders exist?". The purpose of this section was to explore how interviewees define borders in their own words.

Section 2, Border emergence: In this section interviewees were asked to explain their knowledge of theories and concepts concerned with the formation and development of borders, and what they understood as the reasons for such territorial organization of space and society. It started with the question: "Have there always been borders?".

Section 3, The borders of Europe: This section of the interview started with the question "What is Europe to you?", which led to an open narrative phase in which individuals defined their position and opinion on the subject. Following this, interviewees were asked to draw onto a Europe-centric map of Europe to depict their understanding of Europe alongside the views they had expressed previously. The aim of this exercise was to give pupils the opportunity to present their own experiences and concepts based on their personal perspectives on Europe and, in reference to the chapter "Current findings on boundaries in human geography and Europe", the individual boundaries of Europe should be collected and made comparable in order to illustrate the previously abstract border concepts by means of the spatial example. Section 4, Border Experiences: The fourth section of the interviews focused on personal experiences of border crossings, such as for holidays or during migration. The narrative parts of this section of interviews started with the question: "Have you ever been to a border? What happened there?"

The order of these interview episodes was arranged for each individual interviewed to motivate the interviewees. For example, it was sometimes necessary to let the students draw on the map of Europe first to start the conversation. Furthermore, the different approaches in the four episodes will have reduced the methodic deficiencies between interviewees.

To extend the data set a questionnaire was developed after the first set of interviews on the basis of the experience gained thus far. Originally the interviews took place in the school environment and often interviews were undertaken for a number of students per class at the same time, which may have limited pupils sharing their personnel limitations. The qualitative questionnaire consisted of open questions with free text

answer fields and the questions set, and the associated drawing task, were based on formulated questions from the four sections of the interview guide. The questionnaire served to supplement the qualitative results from the interviews and to survey a larger sample of students. The implementation took place directly on the basis of the interview guideline. This structured the questionnaire more clearly and gave the opportunity to enlarge the sample by interviewing more students than the original methodology allowed. From the relatively free possibility to have the students draw Europe into the blank world map in the interview, the task in the questionnaire was reformed to be, for example: "Draw Europe into the world map. Then explain in the box below why you drew it that way." This task was then followed by the questions: "What is in Europe and how do you think it can be delimited? What does it matter?" and "In your opinion, what are the consequences of such a demarcation of Europe? A further aim of using the questionnaire was to quickly expand the previously relatively small sample and thus be able to identify possible deviations and contrasts.

Sample and Data Collection

The sample for this analysis consisted of 41 datasets in total and was solely collected by the author of this article. The author was usually introduced to the students by the respective teacher in lessons or replacement lessons prior to carrying out the survey. Data acquisition took place between May and July 2017. 20 personal interviews were collected; 10 with girls and 10 with boys. In addition, we used 21 qualitative questionnaires to broaden the sample. The interview transcripts and questionnaires were anonymized by chronologically numbering, with the transcripts numbered 1 - 20 and questionnaires numbered 21 - 41. Seven interviewees had a refugee background, who had originated from Syria (n=3), Albania (n=1) and Afghanistan (n=3). These children with a refugee background had lived in Germany for between one and two years. In these cases, in particular, only children who were fluent in the German language were chosen for the interviews. Other interviewees were born and raised in Germany, and some students had parents with a migration background. The students came from 9 schools from 4 different cities in Northrhine-Westphalia in Germany. The respondents were aged between 14 and 17, an age that was chosen because children have been found to develop a saturation level (Gould and White, 1986) in their spatial knowledge around this age. The degree of saturation in "spatial knowledge" chosen here was a proxy due to a lack of detailed studies on the knowledge of the complex spatial phenomenon of boundaries. At the same time, "spatial knowledge" seemed to make sense in the context of this study, as concrete spatial knowledge should also be queried with the borders of Europe. The students were predominantly in grades 9 and 10, although students from an analog welcoming class* for newly immigrated children in different secondary schools (Hauptschule (1), Realschule (3), Gymnasium (4) and Berufskolleg (1)) were also

* Foreign children who do not speak German start their education in Northrhine-Westphalia, Germany, in „welcoming classes“: special learning groups for foreign children and young people where they learn first basic knowledge of the German language so that they can integrate into the regular classes afterwards.

included in the study. Most interviews took place during free or replacement lessons. Due to the explorative character of this study, the selection of interviewees from the student body was based on "theoretical sampling" (Strauss & Glaser 1979). The aim was to follow the principles of minimum and maximum contrast. Accordingly, the pupils in the classes were first asked about their willingness to participate and then, in consultation with the respective teachers, pupils with and without migration backgrounds or pupils born in the respective places or who were born as far away as possible from one another were selected. Through consultation with the local teachers, it was possible to make a pre-selection in the sense of "selective sampling" and to avoid selecting only pupils with very similar backgrounds. The same applied to the questionnaires. These were distributed in a heterogeneous class in a grammar school attended by pupils from a variety of different backgrounds. However, there were no pupils with refugee experiences in this class.

The 20 interviews undertaken were predominantly with German-speaking pupils who had grown up in Germany as language represented a barrier in the interviews with those pupils who had only recently started living in Germany. In two cases, language problems were overcome by involving other pupils as interpreters, and despite this initial limitation, some very different experiences and certain similarities and patterns were observed in these pupils' conceptual understanding, which were markedly different to the conceptual understanding of the pupils from Germany. This is explained in more detail in the results section. Overall, the sample used is relatively small and regionally limited to the areas around Cologne and eastern Ruhr-Area in Northrhine-Westphalia. The biggest sample was collected from students attending the highest secondary school-form (Gymnasium). A further consideration for the geographical spread of the sample students is that the topographical knowledge of students may differ between research areas due to their daily experiences and as well as differing curricula in other federal states of Germany.

Analyses of Data

The analysis used qualitative content analysis (Mayring 2015), which was undertaken using the software MaxQDA. Our approach was based on the structuring qualitative content analysis and had a typifying (Mayring 1990, 84) form. In our case, the typing did not refer to persons, but to the expressed concepts and experiences of boundaries, with the aim of describing particularly extreme expressions, expressions of particular interest and particularly frequently occurring expressions (*ibid.*). The typification dimensions arose from the use of the border concepts presented at the beginning. In order to ensure the validity of this study, the three central threats to validity, researcher bias, reactivity and respondent bias (cf. Lincoln & Guba 1985) were addressed. To avoid researcher bias the interpretation of the data was reviewed in the institute's internal research colloquium, as well as through discussion between the two authors of this study. The theoretical model (cf. Seidel & Budke 2017) presented on different perspectives on borders served to theoretically triangulate the interview responses in order to counteract prefabricated perspectives of the interviewer in the

analysis. Analysis was undertaken on the statements collected in the first section of the interviews, followed by an adjustment of the second work step using the theoretical frame (Section 2) to classify the formulations of the interviewees into the four types of border-concepts. For example, a quote such as "The border is something, marked by a line, a wall or a fence" (No. 6) was given as a definition. This content was then compared to the differing perceptions of borders (Section 2.2). The example above uses the verb "to mark" and the nouns "line", "wall" and "fence" to describe the border. Consequently, this interviewee focused on the visibility of the border by physical features. Interestingly, the noun "line" is thought to refer to the representation of the border on a map whilst "wall" and "fence" are connected to a border's material manifestation in space. In a deepening analysis of this answer, the quotation was analysed for its conceptualization of the border. There were no references to the border influencing the structure of space or differing perspectives, perceptions, stakeholders or actors mentioned. Therefore, the pupil was considered to have defined the border as a part of a container. This form of analysis was undertaken on a step-by-step basis for all interview transcripts. Examples of this category formation can be found in the following table:

Table 2
Examples for category formation

Concept	Example quote	Explanation
<i>Borders in a system of spatial relations</i>	[...] "but borders can also harm the economy with imports and exports, because countries cannot be reached." [...] (No. 36)	The quote refers to exchange relations between countries with regard to "economy" and their ability to be influenced by borders.
<i>Borders as perceptions</i>	"This fence was dangerous and hurt because we had to climb under the fence." (No. 6)	The quote refers to the direct perception of the border by the injuries caused by the barbed wire "fence".
<i>Functions of borders</i>	"Yes, because a border divides a country. And when you say I live here or there. Everyone can say in concrete terms where they live. And where he comes from. And at a border you are also controlled. And you see okay, I go to a foreign area or a foreign country, I don't really belong there. So, you already notice, you can say directly, I belong there ...in this country. And the other one says, okay, but I belong in this country." (No. 27)	The interviewee recognizes that boundaries serve to define identity and that actions such as controls serve to demarcate territories. Nevertheless, it remains questionable whether there is any reflection on this and whether it is understood as a process of social construction. <i>For this reason, this category is called "functions of borders".</i>

Findings

This section consists of four parts that present the results. We use anchor quotes to display and discuss the concepts and imaginations of the students. The first part (4.1) displays the definitions used by the students to explain their concepts of borders. Part 2

(4.2) presents the findings on the conceptualizations the students formulated regarding the emergence of borders. In the third part (4.3) we display the drawings and explanations students produced for the section regarding the borders of Europe. The last part (4.4) features the personal experiences of students at various borders in and outside of Europe.

Border Definitions

The idea of borders is inextricably bound to territories, which together formed the basis for most definitions and concepts that students made during the interviews. The following quote is an example of these conceptions: “It is the end of a country [...]” (No. 12). Most interviewees used the picture of countries or states to explain the work of borders, which strongly indicates a conceptualization of space as a container (cf. Tab.1). On this basis, borders are, for many students, a concept that defines and localizes specific areas, especially national states, in space: “[...] because we know exactly where each country is, because we know where the borders are” (No. 13). These borders are something mainly experienced on maps, shaping individual perceptions of space: “First I mean the optical on the map. Sometimes the individual countries are also marked with colours” (No. 4). It might be argued that quotations such as this address the border as part of perception, but on the contrary the interviewee only referred to their own perception of the border on a map, which omits differing perceptions. This focus on the visible features of borders as central for their definitions dominated most of the interviews. The interviewees did not formulate complex features of borders (see Section 2) or the conception of a process such as forming borders. The student’s definitions did not address stakeholders, material or representational practices (like drawing borders on maps or controlling people at the border) or the influences of borders on spatial structures. This omission may be because of the overwhelming media coverage thematising state borders in the context of crossing them directly and due to the focus on those borders on maps in geography education. Furthermore, most of the interviews happened in a school context and during geography lessons, which may also cause student’s views at the time to be associated with dominant ideas of political units with clearly defined spaces, as is taught in geography lessons. Except for direct experiences at borders, maps were cited as the central media by which students connect to borders and use to describe them. Students in the interviews perceived maps as images of reality and not as constructions, which again suggests a conceptualization of space as a container or system of spatial relations (cf. Table 1). This enhances the simplistic understanding of borders as lines in space. Students make connections between visible features, such as those on maps, and the existence of borders, exemplified by the following quote: “So the boundaries can be seen when going to a new country” (No. 4). An even stronger connection between the border and its physical elements are apparent in this quote: “The border is something [...] marked by a line, a wall or a fence” (No. 6). Beyond that, the fact that these physical features are missing in Europe is considered quite unsettling, especially for children born in countries outside

the Schengen-Area, as this quote shows: "Yes, so in Asia the border establishes order but here in Europe I do not know where the order comes from because there are no real borders" (No. 6).

Border Emergence

The section that included the questions: Where do borders come from and how do they emerge? started by asking students if they thought there had always been borders in the world. Our findings show that students see borders as normal and forms of social organization of space, that have always existed as this quote shows: "No, not as concrete as on a map. However, you already knew, for example that is the area of that and that is the area of that. That there have always been borders indirectly, yes." (No. 11). However, the student's perception that there have always been borders does not mean that students ignore change: "No, borders can always change. The wall in Germany was also a border. Now this wall no longer exists. Most borders are associated with politics." (No. 5). In most interviews, the respondents made a connection between borders on the one and power and politics on the other hand. In this context stakeholders can be categorised into types of people (e.g. "ruler", "conquerors" or "politicians") and concepts (e.g. "democracy" or "systems"). In the case of concepts, the students used examples such as "For example there are borders to other systems, like North-Korea. They have no democracy there and therefore there is a border" (No. 8). Interestingly, interviewees made no connections between themselves and the people and concepts they referred to. The reason for the emergence of borders is considered to lie primarily, according to interviewees, in territorial claims: "...it's because of countries, because people thought they wanted something, but there are other people who want it too." (No. 1). The basis for such identifications of formulated territorial order is thought to have arisen from what students have learnt in history lessons. In particular with regards to conflict, as this quote shows: "Borders have come into being because wars have been fought in the past and then areas have been conquered, then narrowed down to show 'this is mine'" (No. 3). There were no significant differences between certain groups of students in this section; the origin of the students or which kind of school they attended made little difference to their responses. The interviewees named borders in a way that would be expected in terms of organizing the socio-spatial world and their directly link with politics and power, and furthermore their development by wars and violence. In contrast, students' didn't name themselves part of these processes. The territorial claims were made by "people" and "other people". This disassociation seems especially interesting in the context of political education, because of the loss of perceived self-involvement and the one-dimensional concentration on violent solutions for the development and emergence of borders.

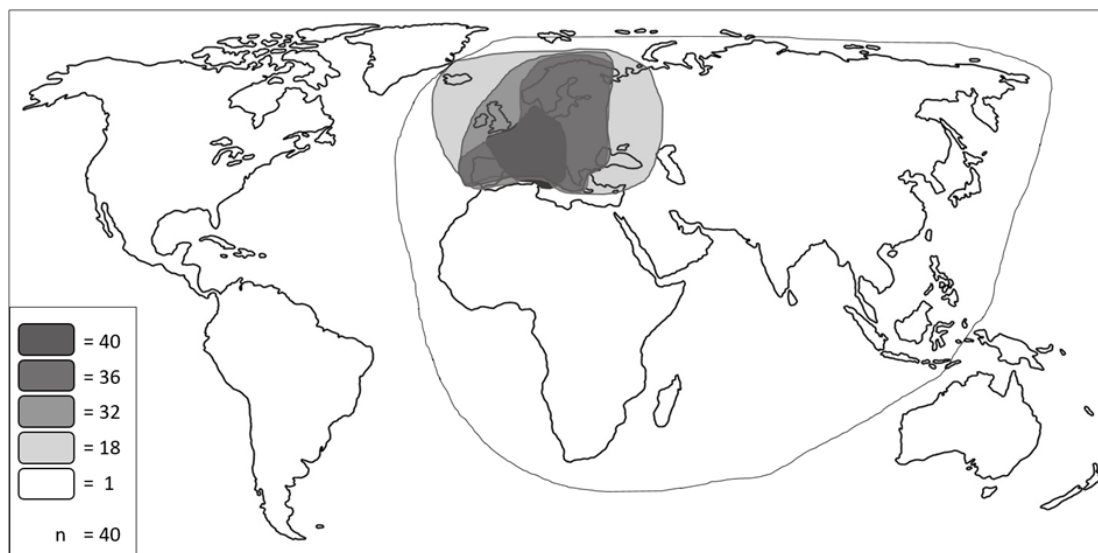
The Borders of Europe

This section presents the interview statements concerned with the borders of Europe and the individual drawings of those borders produced during the interviews. Central to this section are the basic definitions of Europe, for which many students equated Europe to the EU. A central trigger for this concept was thematizing Brexit, such as in this example: "[...] UK resigned recently from Europe." (No. 1). The statement coincided

with a drawing of European borders without the British Isles. In particular the children born and raised in Germany formulated strong connections between the European states: “When you are traveling around Europe, you know you have something that connects you to all the other countries. [...]. You know that you are driving to another country, but you do not realize this, because these countries are simply connected.” (No. 13). Interestingly, this respondent formulated a common European identity, which is thought to have derived from the perceived borderless Schengen space. The viewpoint of Europe being directly equitable to the EU continues throughout in the answers from the questionnaire: “For me, Europe is the union of the most advanced countries in the world” (No. 25) or “Europe is a political union, inside of it there should be no borders, but I think the EU should be somewhat shielded from the outside.” (No. 35). The use of EU and Europe is particularly synonymous in this quote from No. 35. Moreover, we find strong hints on identification with the EU as the “most advanced countries in the world”. Interestingly, many students combined this opinion with omitting borders between the EU and non-EU-countries, such as Switzerland or Norway, and drew one continuous area on the map. A kind of “core-Europe”, found in all drawings, ranged from France in the West to the Middle of Poland in the East, and from Denmark in the North to Italy in the South (Graph 1). This German-centric view may result from standard maps of Europe in German atlases. In contrast, countries at the edges of Europe were the focus of more controversial statements and drawings. For example, Turkey was mainly classified as part of the Asian landmass, and therefore excluded. In other cases, in at least five drawings, Turkey’s positioning remained unclear: “Yes, that is [...], so I would rather say Asian, but there is just the border. Therefore, it is, if you look geographically you cannot decide I think. Although this is not yet a European country” (No.17). Interestingly, this quote displays a differentiation between “geographically” on one hand and the decision that its “not yet a European country” on the other. Therefore, in this conceptualization, there is considered to be no geographically correct answer and that might be possible for Turkey to become a part of political Europe in the future. The understanding in this quotation seems to reach a level where the development of Europe becomes a process. This opinion is in contrast with the majority of other definitions provided by interviewees, which define Turkey as clearly not European. In a quote from No. 17 there were no further explanations for this segregation. The concept of this division seemed to be a considered a common accepted justification. In other answers we found clearer definitions: “I did not draw Turkey into it, because it is not part of EU” (No. 27). Again, the relationship between the EU and Europe dominated the conception. Social controversy about EU-membership for Turkey was also displayed in the differentiating allocation of Turkey on the maps. In 18 cases Turkey was considered to be part of Europe, with explanations such as: “Half of Turkey belongs to Europe” (No. 17), while others who excluded Turkey due to the distance from the core: “no, but here, for example [pointing to the East], they are too far out, and I do not think they belong.” (No. 2). This “too far”-explanation points to a spatial conception in which the intensity of being “European” seems to decrease at the edges.

Another important observation with regards to the eastern borders of Europe lies in the fact that some pupils did not have enough topographical knowledge to identify Turkey's borders correctly and therefore had problems drawing the border at all. The following map shows an example of the different drawings produce in the interviews (see Fig. 1).

Figure 1. Europe's borders from students' perspectives



The map (Figure 1) displays categorized drawings from 40 students. Grouping of the 40 drawings was necessary to make the map readable. Core Europe, part of all 40 drawings, displayed in the darkest of the infilled areas, lies in the centre of the map. This is considered to have led to every pupil clearly including Germany into Europe. Again, this might result from familiarity with maps used in atlases and other common sources. Furthermore, these drawings display a possible European spatial identity in the geographical thinking of the interviewees. One of the map outlines drawn by an interviewee includes the entirety of Eurasia and Africa, considered to be resulting from the weak topographical knowledge of an Afghan student who had only lived in Germany for a short period.

Summarizing the drawings and the interviews, there is a common core Europe in all students' perceptions of Europe. The centre of Europe was predominantly considered to lie between Denmark in the north and Italy in the south and between the Iberian Peninsula in the west and Poland in the east. The focal point of all the maps drawn was Germany, which confirms the strong identification with Germany of the interviewees, as well as the EU and Europe. Another common factor was the territorial unity of Europe, which ignored distinctions between EU-member states and others. However, there were also a variety of different ideas from interviewees, with some defining Europe as a geographical continent and others as a federation of nations.

Border Experiences

The last part of the analysis addressed the personal experiences of borders by the interviewees. We start with experiences made by students born and raised in Germany. Here we distinguish two main types of border crossings. First are direct encounters with borders, in particular those in cars or buses and without controls, such as on a class trip to the Netherlands: "Well, there was a sign at the side of the motorway [...]" (No. 2). This identification of a sign at the side of the road was repeated in many of the conversations with interviewees. Most of the children's experiences were a result of travelling inside the Schengen Area and done by car. Therefore, experience of borders may differ in other contexts, e.g. when traveling to countries with stronger controls such as the U.S.A. A second type of experience was concerned with other means of transport such as airplanes: "[...] when you fly, you are controlled and that's a normal part of it, because while you are flying they cannot control you directly at the borders" (No. 3). Remarkable here is the opinion that whilst flying the border itself is not directly accessible, because borders are considered to be on the ground, which links to many interviewees' understanding of borders as physical elements of territories. Another way in which borders had been encountered was through the use of ferries: "[...] there was a bit of a different border, as we had to get out of the bus and show our passport. Only then we could go on the ferry." (No.11). All interviewees born in Germany described situations they could always proceed with their voyage. Their border experiences included a perception of national borders but without experience of restrictions of mobility.

This unrestricted experience of borders differs to those children interviewed who had been refugees. In their cases, fear played a prominent role as in this quote: "If you get there, you're afraid, because you cannot go to Iran from Afghanistan. [...] on the two sides are different police officers. [...]. There was a barbed wire fence, [...]. This fence was dangerous and hurt because we had to climb under the fence." (No. 6). These experiences have a strong influence on the definition of borders, also exemplified in this another quote from the same student: "A border is a line that divides two countries or areas from each other and is marked by a wall or a fence. The line separates people from different countries, and people from another country are not allowed to cross the line because there is police" (No. 6). Besides anxiety, these journeys were considered to be tough experiences: "Yes, very difficult, I was traveling for 15 days. We slept on the bus or on the train. There was no place to sleep" (No.4). Other students had very different experience; some children of Syrian origin compared their travels to holidays because they came in an aircraft with their families and did not have to undertake one of the more difficult land routes. For example, one interviewee mistakenly took a toll station in France for a border post. Asked for experiences at borders in Europe she said "[...] we had traveled from Italy to France by car and there was something where you had to pay so you could go on." (No.18). This example shows that the central experience of the interviewees with borders happens while being confronted with them, and even practices such as the stop at a toll station that might not necessarily coincide with a political border are part of the range of experiences.

Results and Discussion

Current nation states and their territories primarily formed the interviewed student's conceptual understanding of borders. The surveyed students built on the idea of container-space, learned from maps and textbooks, to discuss the existence of boundaries and territories. The students were not aware of the diverse practices and communicative acts that underlie these apparently stable spaces and that their conceptual understanding ignores the social construction of space. The seemingly borderless Schengen-Area is considered normal for students who have grown up inside of it, which is often their only experience of borders. To an extent, borders are imaginary but they have elements of order and security. Whilst flying borders are considered to not exist, which suggests a two-dimensional spatial conception exists, with borders considered as material elements of space. For students who were born outside of a border free space such a concept is confusing; their understanding of borders is strongly connected with order and with their personal experiences of borders being associated with walls, fences and controls. The organization and order of space without material borders seems to irritate those who have more explicit and physical experiences of borders and controls. Examining this finding through the lens of the four differing border concepts (see Tab. 1) suggests that students primarily use the concept of a container-border, which becomes even starker when observing the drawing of Europe's borders undertaken by the students. Our findings show that the majority of students have an idea of a core Europe (Section 4.3), which is equated with the EU and is uninterrupted in terms of borders. Some interviewees considered that the extent to which a country belongs to Europe depends on the distance to Europe's centre. In nearly all interviews regarding the emergence of borders, the origins of the borders seen today were seen to be determined "long ago in the past" or even "always been", indicating that the students do not understand the concept of "bordering as a process of social construction" (Table 1) but as a natural, physical phenomena. With reference to theoretical framework this finding suggests that the majority of the interviewed pupils do not understand the complex actions and acts of speech, such as "spatial socialization" or "regimes of territorial legitimisation" (Section 2.1) and thus cannot see past one-sided spatial constructions such as containers. Physical experiences are considered to be the main attribute of distinction between children born inside and those born outside of Europe, with strong influences based on their experiences of borders. An example from the Afghan student, who defined borders as "a ban to go to the other country" (No. 6), provides evidence for an approach such as Kallios' (2016), where a stronger focus on the world and daily experiences of children form their geopolitical subjectivity.

In view of the current state of research, it is worth noting how often Europe and the EU are equated, especially with regard to "spatial socialization" (Paasi 2009), which would be an interesting starting point for further focused research, particularly in the context of education and citizenship (e.g. Kallio & Häkli 2011). The very different levels of knowledge and understandings regarding the concept of the border also

indicate that the findings on "spatial knowledge" in the sense of Gould & White (1986) are not sufficient to determine the extent to which students understand a complex political-geographical concept such as the border. Consequently, further investigations are needed in this area.

Conclusion

Considering the fact, due to recent migration movements, and therefore an increasing number of classes becoming more heterogeneous, student's perceptions and experiences of borders offer a rich source of material to enable change in perspective, and furthermore to lead to new approaches and conceptual changes in our understanding of borders as processes of socio-political construction. Our results show suggest a wide range of conceptual awareness by students with regards to the borders of Europe. The controversy of the demarcation and definition of Europe described in the introduction and observed in the student interviews should be used by teachers as a basic on which to develop students' diverse and controversial European demarcations into a scientific debate (cf. also Budke & Schindler 2016), and consequently deconstruct the allegedly clear demarcation of the typical German geography schoolbooks. In a subsequent reflection of this deconstruction, these current socially constructed spaces can be discussed. Within the framework of this reflection systematic consideration of boundaries discussed here (cf. Seidel & Budke 2017) are then also an option. In this way, pupils are then given an opportunity to systematically examine borders and thus open themselves up to different geographical concepts of space.

Such a practical application should provide a basis for further research. Following the transformation of the approaches briefly outlined here for application to teaching, a practice-oriented study should be carried out in real school teaching. Intervention studies, design-based research approaches and the use of the model of educational reconstruction could also be suitable to establish a comprehensive political education in geography teaching that considers the current scientific discourse about borders as practices and constructions. Such steps are necessary to provide pupils with a comprehensive education and enable them to participate competently in social debates.

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