The Representation of Europe in Maps with reference to Catling's Theory of Children's Worlds: Issues for Geographical Education

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Abstract

This paper discusses some of the complex issues involved in how Europe is represented in a range of map formats. The reader is encouraged to consider these issues by accessing recommended websites in order to analyse how Europe is represented through their published contents. Simon Catling's theoretical work on children's worlds is then used to discuss the implications of European maps and how they may influence children's geographical knowledge and understanding of their world. By bringing these two ideas together it may be possible to further inform how the concepts of Europe and children's' sense of place may improve geographical education.

Keywords: Maps, Europe, pupil understanding, spatial representation

Introduction

> *I have always loved the moments of travel when, brought to a halt by a striped barrier, approached by unfamiliar uniforms, you feel yourself on the brink of somewhere unknown and possibly perilous* (Morris, 2002)

Exploring Europe today we find ourselves overwhelmed with media and personal stories of migration, conflict and change. To a large extent the scale of these activities may be enhanced by our access to vast amounts of information from various forms of media: television, internet, e-mails, satellite television etc. Perhaps we also notice it more as we have much greater access to personal travel, whether for private pleasure or in our daily work. It is therefore quite hard to clearly identify the true extent of the

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ways in which Europe is evolving. With access to a vast array of information, we are also exposed to various definitions of Europe as created by different interest groups and communicators. Parker suggests:

> *Where there's a map, there's often a border. Often, it's the boundaries - political, topographical, cultural, linguistic, and historical – that are a map's raison d'etre: a show of muscle, a graphic illustration of change or simply a bold, bright statement of territorial integrity* (2009, p. 131).

This paper will begin with an analysis of readily available maps of Europe found on the internet which can be accessed by pupils and teachers for geographical education. They all have slightly different content and methods of representation. As such, they all give different messages as to what and precisely where, Europe is. Following the analysis, Catling's (2006) theoretical perspectives on how children may perceive the world will be analysed within the context of the analysis conducted on the various sources of European maps, in order to see if insights arising from these may better inform how map resources of Europe interact with children's own understandings of their worlds.

Sources of European maps

Bridge (2010) begins his chapter on map work skills in the Geographical Association's revised *Primary Geography Handbook* by stating:

> *The need to record, revisit and pass on information to others is of fundamental importance to all our lives, and one of the most effective ways of achieving all these is by making and using maps* (2010, p. 105).

One of the most common and accessible ways of visualising Europe is how it is represented on maps. However, it is very easy to distort space and information when making maps and we perhaps have to look a little more beneath the surface in order to gain a deeper understanding than Bridge's more simplistic view of the purpose and function of maps. Maps are very selective and created by people who may have an agenda about what they wish to include, exclude or distort through the design and content of their map. You may find it helpful to have access to the internet in order to see how this works in practice. The following references to web pages have been carefully selected in order to raise a number of different issues which you may wish to consider from your own role in geography and geography education. If you are a teacher, it may help you question the type and range of maps to which you expose your pupils. It may help you ask what concepts and mis-conceptions they develop when using a range of maps. Do they have opportunities to critically compare and challenge? Finally, do you know the types of maps to which they are exposed beyond school and

how these might affect their geographical understanding? If you are a writer and publisher of geographical materials, how do the maps you include impact on your readers? These might be school pupils, undergraduates or the general public.

We are used to seeing Europe near the centre of world maps such as those based on the Mercator projection. However, there is a projection called the Fuller Projection. Go to http://www.grunch.net/synergetics/mapdymax.html in order to see how all the world's land masses are shown without interruption and not cut into by the structure of the map. Consider how Europe might be perceived by people if this was the most commonly available form of world map projection. How might this projection be used in school to raise and challenge pupils' views of the world? Fuller is also an interesting map because its production only came about when we had developed sufficiently powerful computers to generate such images, while taking into account the various parameters its designers were interested in including.

Traditional world map projections frequently place Europe near the centre: this is often referred to as a 'Eurocentric' type of map projection. If you open http://flourish .org/upsidedownmap/ you will see how the position and status of Europe is presented in a radically different way. The first 'upside-down' or 'south-up' map of the world was published by Stuart McArthur in Australia in 1979. In his accompanying text he states "No longer will the South wallow in a pit of insignificance, carrying the North on its shoulders for little or no recognition of her efforts". Such maps are useful in helping pupil's and the wider public's understand the world from other people's points of view. The author uses it on undergraduate geography education courses with trainee teachers: Almost every year, when shown this map, a few students respond by saying that it is 'weird' and indeed 'wrong'. These are specialist geographers who have come though the majority of their education being exposed only to Mercator and similar projections which offer a Eurocentric view of the world. Its introduction always sparks interesting debates on what map projection is 'right', often a question they had not previously thought about. Fisher (2003) offers fascinating insights into how such debates can aid the development of philosophical thought of young children.

Maps are produced by a wide range of organisations. The CIA provides this map of Europe on its website: https://www.cia.gov/library/publications/the-world-factbook/ referencemaps/europe.html . Geographers might consider this to be a rather naïve map of Europe where much important information is missed off. How carefully have the designers considered where the border of Europe actually lays? Is it up-to-date? Why has part of northern Africa been included? How might this map of Europe be interpreted by the casual internet user wanting access to a map of Europe? What messages does it offer? It is interesting that such a map and its selected contents have been published by the CIA. Does this represent a genuine lack of understanding of the complex issues involved in choosing the contents for a map and the effect it may have on potential users? Or, does the CIA have a clear agenda for what has been included

and published for worldwide access? It raises interesting debates about the extent to which maps may be a form of political control over how their users view the world.

The following website offers many maps of Europe and sells itself as a useful site for children to learn about the world: http://www.yourchildlearns.com/europemap.html. Read the ten lines of explanatory text at the bottom of the screen and consider the many assumptions it makes. They have made an effort to show complete countries of Europe but notice how Cyprus is represented. What messages might this map give to the casual user, especially children who it says it is specifically aimed at? Learners of all ages in our internet dominated world are often asked to access the web for maps for a variety of reasons. As educators, how often do we take the opportunity to encourage them to question the contents and design of the maps they choose to include in their work? This would not be saying to them that they have chosen a 'wrong' map, rather getting them to question the nature and purpose of maps and the extent to which they achieve their aims in actually using them. As the web provides an ever growing number of opportunities for people to access and use maps, it becomes increasingly important that users have the critical and analytical understanding to know how to read and interpret maps, with also an awareness of the way in which they can only ever be a partial representation of the world.

Texts are often linked with maps and can manipulate their meaning. See http://www.europeemaps.com/western-europe-map.htm . This site is based in the USA. Study this map of Western Europe: do you agree with the content? Read the text associated with the map. Do you agree with the statement in the final sentence? It is interesting to note that the majority of US citizens do not own a passport and therefore have never travelled beyond the borders of their nation. Some of these people are designing websites such as this and deciding the content. While the web does open up many new sources of information to us, it also exposes its users to an increasingly large amount of data and representations of the world which require careful scrutiny in terms of their designer's intention or indeed lack of it. A further issue is that, unlike paper published maps and atlases, we often do not know the names of the authors of web-based maps so it becomes very hard to discuss their maps with them or set them within a context of their track record and credibility in the world of map publication.

Newspapers influence much of our understanding of the world. The New York Times provides this map of Europe on its website: http://www.nytimes.com/imagepages/2006/07/25realestate/ghmap-europe.htlm. The designer seems either unconcerned or unaware that many European countries are not shown in full. There is no obvious key to aid the reader. The Eastern boundary is unclear. This website is included because it is run by what many would consider to be one of the press worlds slightly more trustworthy of newspapers. Yet to an experienced geographical eye, they raise many questions about their accuracy and the ways in which they have been edited and presented. How helpful would this map be for developing children's understanding of

Europe, especially children in the US who may not access maps generated from other sources?

Europe also needs to be explored historically. The site below provides a series of maps showing how Europe evolved over a long period of time: http://www.allposters.co.uk. This site contains some fascinating maps representing how Europe has changed and evolved in the last few hundred years. They raise important questions about the type and nature of skills we need to be developing within geographical education to ensure that school pupils and university students can interpret these within an historical context and also relate them to the data shown on present maps of Europe. However, they also provide many opportunities to analyse how cartographic methods have developed over time. For example the way in which height and landscape shapes have been represented in the past and the messages they convey to the user. For example, early 19th century Ordnance Survey maps of the south of England use a specially designed method of showing slope and landscape shape as they were specifically designed for military use to help commanders and leaders interpret the landscape from a strategic perspective.

All maps distort some pieces of information included in them. The maps on the 'Worldmapper' website deliberately distort the shape and area of nations in order to make powerful statements. Go to: http://www.worldmapper.org/. You now have hundreds of maps to choose from. Take time to read the brief explanation of how the site works and what it attempts to present. To see how Europe may be represented, open the world maps showing 'Aircraft Flights' and 'Books Published'. One almost gets a sense of Europe as a successful club appearing large and powerful. But how are Africa and India presented? Now open 'HIV Prevalence' and 'Child Labour'. Compare the ways in which Europe, Africa and India now appear at a global scale. It's also worth considering these maps in the context of India rapidly establishing itself as a global superpower. Think about your school or university curriculum and consider the possibilities for using 'Worldmapper' to support learning and understanding at a range of scales: local, European and global. The 'Worldmapper' site is regularly updated so you can be sure that the information shown is as up-to-date as may reasonably be expected with a project on such a large scale as this.

Hopefully, this brief review of just a small selection of maps of Europe available on the web will help you to reflect on the power of maps and how they are only partial representations of the world. They are externally created versions of the world and perhaps one we need to spend much longer on whether working with school children or students at university. Indeed, the author believes that professional geographers could do much more in promoting the understanding, use and enjoyment of maps to the wider public at large. Jackson (1989) develops these ideas in his analysis of an increasing recognition of the importance of 'space' in the ways in which we understand contemporary society. Massey (2008) places this debate within a very up-to-date

perspective at a global level where Europe is seen in new and rapidly developing spatial contexts.

We will now move on to theoretically consider how the map sources discussed above may be integrated with Catling's (2006) ideas of how children understand the world and in turn how this may inform pedagogy in geographical education.

Children's Geographical Worlds

How do children build up their knowledge and understanding of the world? Professor Simon Catling at Oxford Brookes University suggests that children have perhaps ten geographical worlds in which they operate. These will now be considered within the context of pupils' identities and Europe and ways in which they contextualise themselves within it via the use of map.

Children's Action World

This would include the day to day experiences children have of Europe, for example eating cheese or watching a TV programme made in another European country. These are also controlled worlds in which adults influence the freedom and extent to which children can travel. Catling suggests that children need many first- hand experiences in their own locality in order to begin to compare these other places in Europe. For example, by building up knowledge of different types of building, they can then begin to compare them with similar buildings in other European countries. However, this action world may in-fact give children conflicting information about how the world looks. For example a map of Europe they see on the TV weather forecast may be quite different to the one in their school textbook. Which is 'right' and perhaps even more important, why is one more 'right' than the other. So, in pedagogical terms, there is not necessarily a problem in children being exposed to different representations of Europe. What it may need is a perceptive teacher who encourages pupils to ask such enquiry questions in order for them to develop life skills in being able to challenge published information, in this case spatial information about Europe.

Children's Peopled Worlds

Catling bases this world on the notion that people and places around Europe are closely connected. Effective peopled worlds are those where children are exposed to a wide range of information and points of view gained from other people. It is the world that affects and increases their perceptions and attitudes. This in turn may affect how young people choose to live their lives. The people to whom they are exposed are real but of course many of the people may be experienced through stories, the media, computer

games etc. The Fuller projection discussed above is a case in point in that it attempts to represent the world's land masses without interruption. If children have opportunities to use such a projection it may raise questions about how connected our modern world actually is. A practical example of this is where the Mercator projection shows North America and Russian as being very distant; when in-fact they are very closely connected at c180 degrees.

Children's Perceived Worlds

This world perhaps helps us to consider how Europe is seen by our pupils. A rich perceived world experience would enable pupils to de-centre and see issues, facts and ideas from other people's points of view. It also enables then to challenge the perceived world as they know it. It encourages them to carefully draw conclusions based on their experiences which need to be as wide as possible. A fundamental concept linked with perceived worlds is a pupils growing ability to realise that our understanding of the world is always partial and requires constant up-dating. The 'yourchildlearns' website discussed above provides text for pupils to read to help them understand and use the maps available on their website. A close reading of this shows very limited encouragement for children to de-centre, rather more that they accept things as presented. Therefore to what extent might the use of these maps at home or school influence their ability to de-centre and view the world from a range of perspectives?

Children's Valued Worlds

Children's spatial experiences give them the opportunity to decide how much they value places. Catling argues that we can encourage pupils to consider their values during the learning process. How important is a particular place to them? Do they enjoy mixing with a certain group of people? Have they considered how new geographical experiences may further expand their range of valued worlds? Equally, does the process of education actually value their own worlds? Catling suggests that values are often triggered by association, for example hearing the name of a country on TV news. To what extent do they form opinions just on values? For example is their perception of a country based solely on how they value the national football team? This is based on the concept of topophilia which analyses how place attachment is important to living things. Finally, children's valued worlds may help us to explore how such values are built up based on their understanding of Europe and their place within it. Szczesna and Wojtanowicz (2005) argue that in a world with fewer borders, it becomes more important for young people to have a sense in which they develop values for and an appreciation of, their own regional identity.

> *Building and developing one's own regional identity does not aim to*
> *form conservative or xenophobic attitudes towards all that is strange*

> *or unfamiliar. Being conscious of one's own "roots" favours waking the sense of responsibility for one's own region in the future, it also gives motivation for work in support of its development* (2005, p. 277)

Children's Information World

This focuses in on how children actually build up their spatial knowledge and how education may enhance this process. It is also about the actual extent to which children are aware of what they know and understand, in this context, about people, places and ideas around Europe. Catling suggests that education may also help to develop their awareness of what they still need to know: we are constantly revising our picture of their world in the light of new experience. This is especially important when thinking about Europe because it is such a fluid and constantly changing concept and construct. Although we would not use the term reliability and validity with children, they may help us as teachers think about ways in which an active educational experience might help children question the accuracy of various sources. However, this information can be distorted. Wiegand (2006) discusses how the representation of Europe in school atlases is often controlled by design and financial controls which leads to British students sketch maps of Europe frequently distorting European land masses, with Scandinavian countries often being drawn much smaller than they actually are (Axia *et al.*, 1998).

Children's Competence World

In the context of this paper, this world is the set of skills and competences pupils actually need in order to define and understand Europe. It is based on Storm's (1989) notion of geographical enquiry. When studying places, geographers ask key enquiry questions: Where is this place? What is it like? How did it get like this? What impact does it have on other places? What is it like to be here (values)? How does it compare with other places? Such questions are the main tools for finding out about the world. They are then used in a variety of contexts such as reading printed sources, watching different types of media, fieldwork, accessing the web, working with visitors to school, interpreting maps and satellite images etc. The competences can also include the ability to analyse and present their findings in appropriate ways: this helps them to both communicate their ideas and reflect on future possible enquiries to further deepen their understanding. In practice, one example of this may be seem in pupils' home or school use of the New York Times website discussed above. The newspaper may be cited as one of the more 'reliable' sources of information yet its map representation of Europe excludes many nations that are often seen as being part of what many definitions of Europe include. If teachers can find ways in which such active competences can be built into lessons, it may provide life skills that help our future adults question and understand their worlds in more informed ways.

Children's Imaginary World

Children observe and experience the world in many different ways. In order to better understand it, they often engage in types of play where they copy and try to work out what is going on in the world. For example, they go on a coach trip and back at home copy the various roles they have seen people carry out: ticket seller, driver, passenger, courier, holidaymakers. Such activities help them begin to understand how the world is seen by various people in it within a range of spatial settings. It also allows them to use their imaginations to create new versions of the world that do not necessarily model what they have experienced. This may in turn help them not to take the current world for granted and to feel that they have the power to make a difference, a skill that may become even more important in the 21st century where centralisation of power and globalisation may increasingly dis-empower people. Imaginary worlds also take us into the ways in which realism and imagination are closely linked and on from that into creativity. One way in which this may be summed up is a quotation from Einstein "Imagination is more important than information". Some of the map sources discussed above may have useful pedagogical applications in encouraging pupils to develop a more imaginative approach to the world. For example, use of 'worldmapper' resources may encourage pedagogical activities to promote new ways of thinking about how they might represent their world or the world they are studying in geography lessons.

Children's Source World

A central question in a European context is from where do children gain their perceptions, information and understanding of Europe? There are two related questions: to what extent are children and adults suffering from information overload in a digital world and secondly, how selective is the information to which they have access and how does it become selective? Children learn facts and opinions about Europe from popular culture. This can include popular music, TV soap and features, for example the English TV motoring series *TopGear* is very popular in Poland.

Families, peers and friends also play an important role is selecting and promoting children's sources about Europe. This may be blatant racist comments made by a parent or jokes about other races shared by peers in the playground. Friends can also be a source of information and may be interpreted in particular ways simply because they have been communicated by friends. In addition, sources from school can have a significant influence on children's understanding of the world. Some examples might include the pressure from publishers to use certain textbooks, content of national curricula, viewpoints of government, the age of printed and other sources in school, levels of teachers subject expertise and understanding, the design of resources, the balance of sources available for comparison etc. It can also include the values and backgrounds of the teachers and their own awareness of how these might be influencing how they create learning environments through their provision of a wide range of

sources. In many ways, the section on how maps represent Europe illustrates some of these points.

Children's Future World

Hicks (2002) has conducted much research in schools on how children may develop their ideas about the future. He suggests that time-lines do not finish at the present, but rather that teachers can help children project into the future by thinking about their own future, their family, community, nation and at a global level. These may include possible futures, probable futures and aim to empower future citizens to think they can have an influence at a range of scales. Such teaching approaches also serve to minimise a deterministic approach to learning and thinking. They would encourage children to ask about their own future within and beyond Europe. Such activity would be closely linked with the valued worlds as well as requiring access to the sources and information worlds. Educational approaches that valued their ideas about future worlds might also need to draw on what is important to them. Such learning environments also need to respect the views and ideas of children while encouraging them to be reflective and aware that any knowledge and understanding are always partial.

Children's Commitment World

Catling suggests that children can draw on these various worlds in order to act in ways that may lead to a better personal world, Europe or at a more global scale. Educational experiences and indeed society in general would enable them to put their values into action and test them out. Not everything will work but that too is a learning experience. It is at the opposite end of learning where the status quo is accepted without enquiry and analysis. In many ways, geography as a subject is ideally suited to help children learn about the world as constantly evolving phenomena in which much of the enjoyment of living is the on-going challenge of understanding our complex and amazing world. Hicks and Holden (2007) provide some fascinating ideas about how this may be developed with school pupils.

Conclusion

This paper has attempted to merge an analysis of many sources of European maps with Catling's (2006) theoretical perspectives on how children may perceive the world in order to broaden pedagogical thinking on how teachers and pupils might use this rich variety of spatial data to extend and deepen geographical thought and enquiry. Rather than seeing map sources as right or, up-to-date or inaccurate, rather they may be viewed as having extensive potential to help children understand both the complexity of the modern world as well as enabling them to become more critical and analytical uses of a

range of map sources. This may require teachers to review the range and sources of maps they use in geography lesson. It may also ask them to consider how they present maps to pupils: for example, rather than saying one map is 'wrong' instead to ask pupils to consider what it is that makes a map 'right' in whatever sense they perceive that to be. A browse through the following website will encourage the reader to re-consider how 'right' or 'wrong' maps may be in representing nations. www.gapminder.org/ worldmap. It may also require teachers to reflect on how they project their own views on how they value one map in comparison to another. All of these are complex pedagogical processes which we now need to re-assess as they range of maps available for learning and teaching becomes ever wider and more varied.

Perhaps the following poem helps to explain how important our views of Europe depend on the scale and source from which we view it:

"Geography Lesson" by Zulfikar Ghose

When the jet sprang into the sky,
It was clear why the city
Had developed the way it had,
Seeing it scaled six inches to the mile.
There seemed an inevitability
About what on the ground had looked
Haphazard,
Unplanned and without style
When the jet sprang into the sky.

When the jet reached ten thousand feet
It was clear why the country
Had cities where rivers ran
And why the valleys were populated.
The logic of geography –
That land and water attracted man –
Was clearly delineated
When the jet reached ten thousand feet.

When the jet rose six miles high
It was clear that the earth was round and that
It has more sea than land.
But it was difficult to understand
That the men on Earth found
Causes to hate each other, to build
Walls across cities and to kill.
From that height, it was not clear why.

Zulfikar Ghose

Biographical statement

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