"IT'S GEOGRAPHY JIM, BUT NOT AS WE KNOW IT": Exploring children's geographies at Key Stage Two

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Introduction
The research presented here provides original evidence of two aspects of children's emerging geographic learning, namely spatial hierarchy and knowledge of other countries. Evidence was gathered by interview and questionnaire survey from children across Key Stage Two.

Children are geographers even upon entering formal educational settings. They have developed knowledge and understanding of the world they live in both in terms of their ideas about places and spatial cognition, two essential elements of geography. Catling (2003) provides an overview of the nature, breadth and depth of children's geographies while making a compelling case for listening to children. Children develop their own geographies of the world which contrast to those of adult geographers. The research reported upon in this paper suggests that these geographies continue to develop through formal schooling and that children apply their own meaning to geographical concepts and associated vocabulary. Given the wealth of research into children's ideas in science (see e.g. Harlen (1993) or Driver et al (1985)) and the overlap between science and geography as ways of understanding the world this should not come as a surprise.

Background
Research into children's geographies has an emerging profile. The collection edited by Scoffham (1998) and Catling's overview (Catling 2003) indicate an increasing interest in children's geographies. Permeating our knowledge of children's developing notions relating to space and place is the contribution made by Piaget. Through his work, Piaget made a number of important contributions to our knowledge of how children see the world. His theory of cognitive development was important in influencing pedagogy but it could be argued that in the past those concerned with geographic education tended to focus on the structural aspects of Piaget's theory (e.g. Mills 1981) thereby putting a brake on achievement. Piaget also made important contributions to our understanding of the development of spatial cognition and by investigating children's ideas about countries. Different aspects of these classic studies were subsequently researched. Following Piaget, Jahoda (1963) interviewed 144 children aged between six and eleven and traced the formation of concepts relating to the geographical units Glasgow-Scotland-Britain. How children and adults conceive and learn about space has long been of interest to psychologists, as epitomised by the
sub-disciplines of spatial and environmental cognition. Wiegand (1991) investigated children’s place awareness on a global scale and noted gradual development over time. Yet it could be argued that geography has generally not benefited from the insights provided by learning theorists, being greatly influenced by structural aspects of Piagetian theory. As noted above, the construction of meaning has provided insight into science learning, but has generally been ignored by geography and this is what the research investigates.

**Methodological Approach**
A two-phase approach was used, interviews followed by a questionnaire survey and both phases were piloted. Priority considerations were:

a) Focusing on the role of language, particularly in highlighting underlying meanings.

b) Avoidance of normative bias, the priority being to discover children's geographies, not simply the extent of their knowledge of geographer's geographies.

Interviewing children provided a wealth of information about how they think. The children's geographies revealed were often at odds with conventional geography. At a certain level their answers were right or wrong but the point here is that they were using the concept labels but thinking about them in a very different way. Interviews revealed a number of meanings constructed around the term country. Many of these ideas were followed up in a pencil and paper survey carried out with 200 children (Y3 – Y6), 93 boys, 107 girls. Information collected also related to travel experience, knowledge and use of spatial concept labels and spatial representation of the capital-country-continent hierarchy. These ideas were analysed and relationships explored in terms of age, gender and travel experience.

**Findings**
It was found that many children associated countries with size, they were conceptualised as big places, either in terms of area or in terms of population. There is obviously validity in this argument but there were also notions that somehow places grew and became countries. In the survey over three quarters agreed with the idea that countries were big. There was no correlation with gender or travel experience but interestingly more younger children felt that countries were big, while significantly more older children thought that countries could be both big and small, thus revealing an emerging sophistication in thinking. Similarly, younger children felt that countries were far away places while significantly older children thought that some countries were far away and some were not.

Talking to children in interview revealed that some children thought countries were islands and this notion was probed in the survey. Around a third of children surveyed thought that all countries were islands while about ten per cent felt that some were and some were not. While there was an age-related increase in children agreeing with this idea, it was not statistically significant. In
interview it was revealed that children felt that countries had a King or Queen. Younger children felt that this was more important than older ones but again this was not statistically significant. Thinking around the notion of countries as being exotic places was also revealed through interview. This was revealed through discussion of conceptualisation of countries as being 'not like my place/country'. This was the least polarised area in terms of thinking across the age range but significantly, older children emphasised difference. Gender and travel experience were not significantly related. It is a concern that the children who had showed themselves to be more capable of geographic thinking in other areas are emphasising difference rather than similarity. There is obviously a place here for teaching that emphasises similarities and connections between places rather than differences.

Children's responses relating to countries they had travelled to provide insight into both their travel experience and their use of concept signifiers i.e. the degree to which they were using language appropriately. Extent of travel and holiday destinations were examined in the former category and figure 1 illustrates the children's general travel experience.

**Figure 1: General Travel Experience**

<table>
<thead>
<tr>
<th>General travel experience</th>
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</thead>
<tbody>
<tr>
<td>Travel outside British Isles 62%</td>
</tr>
<tr>
<td>Travel within British Isles only 16%</td>
</tr>
<tr>
<td>Travel to other country not noted 22%</td>
</tr>
</tbody>
</table>

There were no age or gender related differences with travel patterns and as can be seen nearly two thirds of children had travelled overseas. In terms of specific mentions of countries that children had travelled to the countries of the British Isles were most frequently mentioned. Of those who had travelled overseas the most common destinations are shown in Figure 2 and of these, the most common destinations were Mediterranean countries, such as Spain. (In this analysis inappropriate classification was, where possible, attributed to the appropriate country (e.g. Benidorm to Spain)).

When children wrote the names of the countries they know about, a number of trends were noticeable. Generally, there was a definite Eurocentric bias with European countries consisting of 60% of those mentioned.
Figure 2: Countries most visited as a percentage of children who had travelled

Further, within this group Nordic and East European countries were infrequently mentioned, the focus being on Western Europe and the Mediterranean. Asia fared comparatively well but by far the majority of these responses consisted of China, Japan and India, other Asian countries rarely being mentioned. Children demonstrated scant knowledge of South American countries, while the listing of Africa as a country far outweighed the mention of individual countries. When African countries were mentioned it tended to be those bordering the Mediterranean. The U.S.A. and Australia were the most commonly mentioned North American and Oceanic countries respectively. There were positive and negative aspects relating to travel. On the plus side, the most frequent travelled to countries mentioned matched the most common ones. There was also evidence that travel could lead to confusion, for example younger children tended to conceptualise places they had been to (e.g. Benidorm, Florida) as countries.

Findings from Maps
To probe understanding of spatial hierarchy children undertook a free drawn mapping exercise. They were asked to draw how the continent of Freeland, country of Utopia and capital city New Hope would look on a map. These were then classified according to how the spatial relationships had been depicted and are shown in Table 1. Some instances were unclassifiable due to illegibility but in all six categories were discerned. The most common representations in each age group and overall are shown in bold italics. These spatial representations suggest that while children are using the language which geographers use they are actually placing very different meaning upon it.
Table 1: Spatial Representations Categorised

<table>
<thead>
<tr>
<th>Classification</th>
<th>Y3%</th>
<th>Y4%</th>
<th>Y5%</th>
<th>Y6%</th>
<th>Overall %</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Borders: All</td>
<td>16</td>
<td>46</td>
<td>20</td>
<td>20</td>
<td>20.5</td>
</tr>
<tr>
<td>Borders: Part</td>
<td>14</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>B: Islands</td>
<td>35</td>
<td>8</td>
<td>16</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>C: Points</td>
<td>8</td>
<td>4</td>
<td>18</td>
<td>6</td>
<td>9.5</td>
</tr>
<tr>
<td>D: No Borders</td>
<td>8</td>
<td>0</td>
<td>10</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>E: Transition</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>F: Geographers</td>
<td>2</td>
<td>12</td>
<td>8</td>
<td>24</td>
<td>11.5</td>
</tr>
</tbody>
</table>

In the majority of representations capital-country-continent were depicted areally, separated by borders, occupying a single area (Category A). This category can be further divided into those representations where capital-country-continent occupy the whole area Ai (fig 3) and those where they occupy only part Aii (fig 4). The former category was the single most common among Y4 and Y5 children.
In the second, category B, capital-country-continent are shown as three separate 'islands', this representation was the single most common among Y3 children (fig 5). The idea of countries as islands, revealed in interview, is echoed here.

In category C (fig 6) capital-country-continent were depicted as points within a single landmass, while in category D (fig 7) neither borders nor points were shown, the concept signifiers merely being written within a large landmass.
Some representations contained different elements of these categories and these formed category E (fig 8). While the former categories had not ‘nested’ the concepts, here some children began to nest two of the three elements, albeit divergently.

In the final category, category F (fig 9) children represented the capital-country-continent conventionally. This depiction tended to be used by older children, was most frequently used in Y6, and the relationship between age and the adoption of this representation was significant.

Summary
A picture emerges that suggests there is a clear difference between children's geographies and geography as constituted as an adult academic subject, even when the same language is being used. The position taken here is that these geographies should be celebrated as emerging geographic reasoning, as children’s attempts at understanding the world rather than them ‘getting things wrong.’ As a subject geography has traditionally been one of many perspectives and the way children view the world should be given a voice rather than being drowned about by adult orientated curricula and understanding

As Cole (1973) pointed out there are as many different geographies of the world as there are people living on the planet. This idea is relevant to children's geographies today. Children are geographers. They are on a voyage of learning to understand their world, just as in the past geography was related to global exploration. Geography educators need to be aware of these geographies if we are to move children to more conventional understandings. We must also be aware of the language that is being used and the concepts it signifies as these terms may have different meanings built around them. We must not assume that because children are using particular words they ascribe the same meaning as adult geographers do and we must be clear to share and model our meanings. It is not just that
children are 'getting it wrong' and need to be told the correct answer – we need to understand that they are applying their reasoning in an attempt to understand the world. Evidence from studies in science education suggests that we need to engage with this thinking if we are to move children to more conventional conceptualisations. We have a duty as educators to understand their world to help them move into ours.

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Further Reading


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