Using GPS tracking devices to explore the geographies of young people

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Context: young people in NI

Most:

- are divided educationally and residentially (Hamilton et al., 2008)

Many:

- continue to experience sectarianism (Jarman, 2005; McAlister et al., 2009; Devine, 2013)
- feel unsafe (Leonard & McKnight, 2010: Belfast study)
- develop travel patterns to avoid 'unsafe' places (Leonard, 2006)
- limit life choices because of fear of the 'other' (Bell, Jarman and Harvey, 2010)
- identify their own community as the only safe space (McAlister, Scraton and Haydon, 2014)

Spatial context

Coleraine has 28% of the population consider themselves to be Catholics and 65.3% Protestant (2011 Census, NISRA, 2013).

Like other towns and settlements, Coleraine was affected by the 'Troubles', with twelve reported deaths. Even after the signing of the Belfast/Good Friday Agreement, there have been three ethno-sectarian related deaths (see Sutton, 2002; CAIN, 2015).

Spatial context

Neither the town nor the surrounding area would appear to have the obvious divisions seen in larger settlements, and there are no 'Peace Walls' separating different areas.

This study

Four Post-Primary Schools in Coleraine took part (n=74)

- Biographic questionnaire completed

- Focus groups with each school

- GPS tracker worn for 1 week

- Location every 5 seconds

- GPS tracks overlaid on maps or aerial images

The biographic questionnaire results

Age (%)

13-15 years	16-17 years	Total
67	33	100

Gender (%)

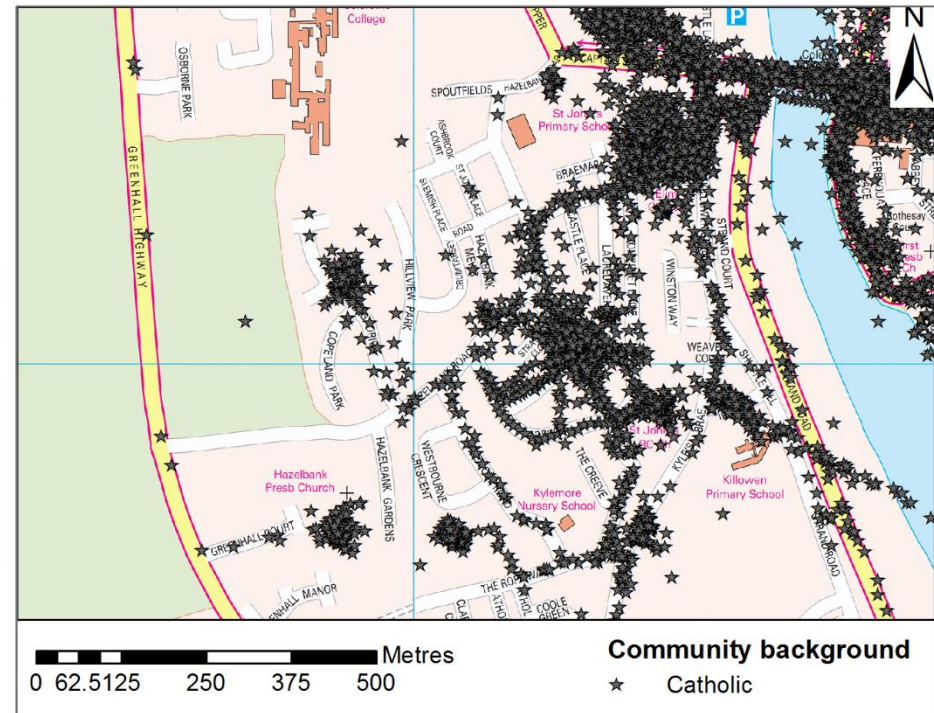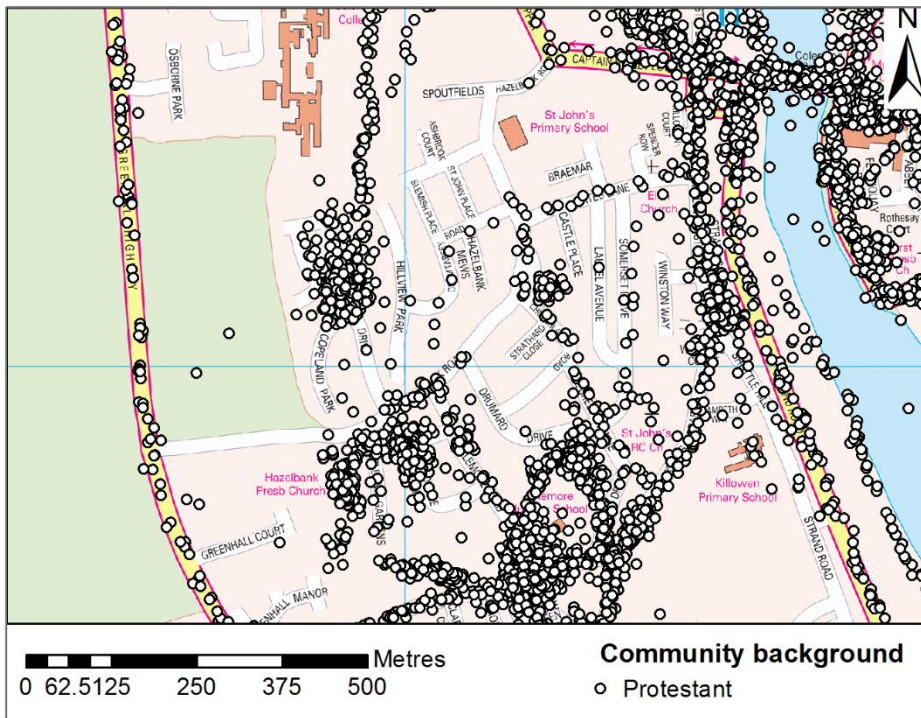| Female	Male	Total
54	46	100

Ethno-sectarian affiliation (%)

Catholic	Protestant	Neither	Total
23	60	15	100

Maps of mobility

**Night time
All users**

Movements in residential suburbs

Community background — Protestant

Community background — Catholic

Movements in residential suburbs

Interviewer: Looking at a map, do you know what areas would be Catholic and what are Protestant, or is it one side of the river is one side and the other side is the other?

Boy 4: It is really just…

Boy 5: This side of the river is more Catholic [refers to Heights area on map on screen], the left-hand side of that

Boy 4: …tricolours [flags signifying a Catholic area]

Boy 4: And if you are not one of them you feel out of place, you know.

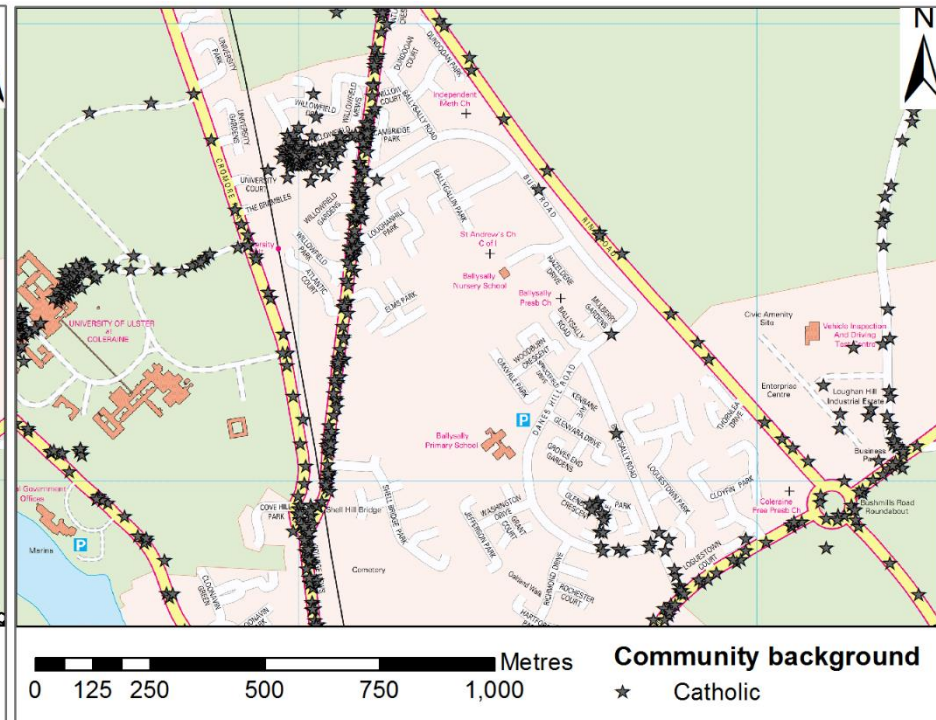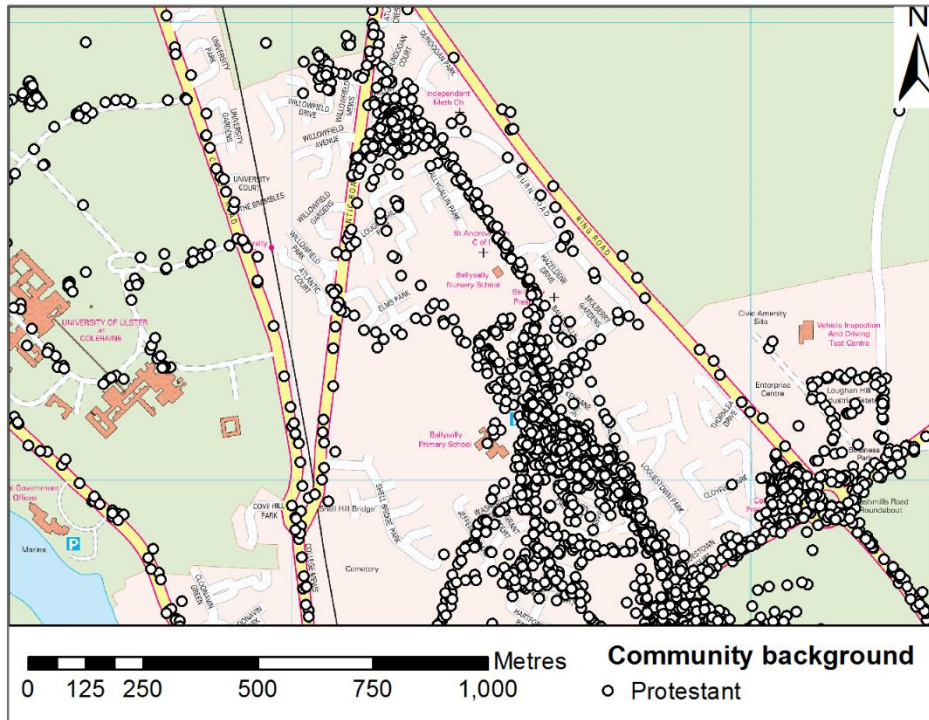*Boy 5: You would go there if you had to but you don't…just…*

Boy 6: Not really, because you sort of think to yourself, I don't really know that and…just the types of people basically that are around there…

Boy 5: You try to avoid it…

Movements in residential suburbs

Community background
○ Protestant

Community background
★ Catholic

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Movements in residential suburbs

Boy 1: A lot of people don't mind it but it is just sort of the way it is, that there is the Catholic areas and the Protestant areas

Boy 2: Some people like to continue it on, like stirring about religion and stuff

Interviewer: But it is something if you are out and about, it is always in the back of your mind, where you are going and what you are wearing, and…

Boy 2: If you walk by, like someone will say something to you…

Interviewer: Is there a Catholic Coleraine, and a Protestant Coleraine?

Boy 3: There's people who take it, like, real serious – like, this is the Catholic side and all. And there's people who just get on with it

Girl 7: My brother goes to School [x] and he knows not to go down a certain road in his uniform, because he knows he is going to get hit and stuff

Girl 8: I wouldn't go there on my own, I would bring somebody if I was going, even during the daytime just because sometimes people hang around there, you don't get a nice feeling

Movements in town centre

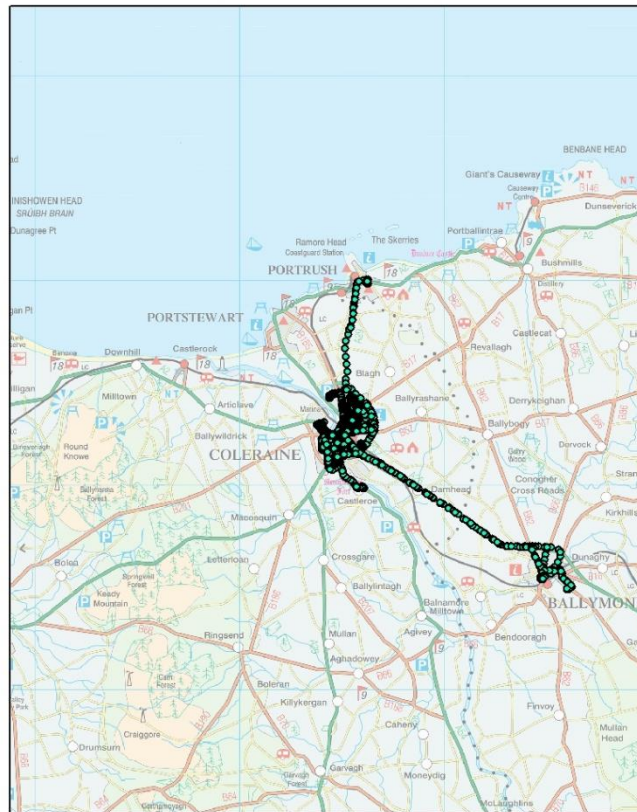Shared space?

Co-used space?

Movements in town centre

Girl 6: You might have Protestants and Catholics that live in certain areas but there is not going to be a certain group of people who go to the Jet Centre [local cinema]. They all kinda mix together
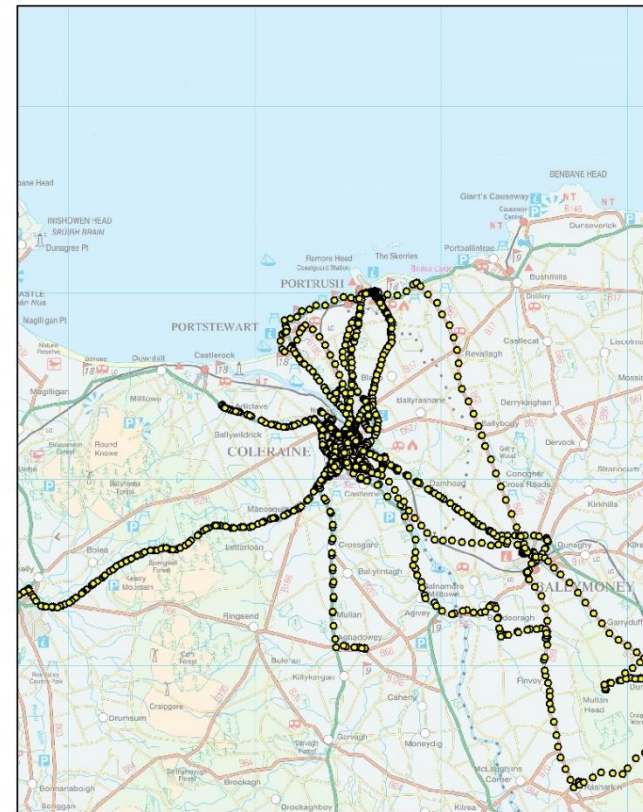
Interviewer: So, it's a sort of a neutral place that anyone can go to?

Girl 6: Coleraine is quite small so you sort of have to mix.

Movement by deprivation status

MDM DECILE 1 & 2

MDM DECILE 9 & 10

Kilometers
0   2.5   5   10   15   20

Mobility by multiple deprivation

Coleraine residents: weekend movement

MDM quintile (high score – less deprived)	Mean total distance travelled (metres)	Mean maximum distance travelled (range) (metres)	Mean speed travelled (km/hr)	Mean MDM decile of areas traversed (high score – less deprived)
1	17227	2705	2.1	2.6
2	12507	1293	3.9	4.3
3	20998	4523	9.1	5.0
4	40553	14438	12.5	6.2
5	59145	17881	15.4	7.5
Pearson correlation with MDM home	-0.314	-0.416*	-0.367*	0.821**
Significance (2-tailed)	0.080	0.018	0.039	0.000

* Correlation is significant at the 0.05 level (2 tailed)
** Correlation is significant at the 0.01 level (2 tailed)

Most deprived ↑ **Least deprived**

Mobility by multiple deprivation

Coleraine respondents: weekend movement

Least deprived
- Have a much greater range of travel (x 6.6)
- Tend to travel by vehicle much more
- Move through less deprived areas

1004 km^2

Most deprived
- Have a very restricted range of travel
- Appear to have much less access to vehicles
- Tend to travel through more deprived areas

23 km^2

Deprivation *and conflict*

'…the vast majority of fatalities in Belfast during the conflict occurred within segregated communities composed of over 90 percent Catholics or Protestants, within areas of high deprivation as measured by the Robson index' (Mesev, Shirlow and Downs, 2009 p.901).

'…there is widespread agreement in the literature that poverty, underdevelopment, and high levels of inequality are all high risk factors for armed conflict' (Hillyard, Rolston and Tomlinson, 2005, p16).

[While the poverty of the areas in which these young people are growing up is comparable to the most disadvantaged places in Britain or in the USA] 'in addition, … they grow up in communities that are in deep social distress in the aftermath of the conflict' (Horgan, 2011 p.456).

How might deprivation and mobility be connected?

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Deprivation *and mobility*

Reay (2000) discusses children in a London Inner City Primary School, whom she observed for over a year between 1997 and 1998. For the middle-class child, 'the world 'out there' does not represent so much danger, as opportunity and excitement …. redefined at a landscape of mobility and possibility' (2000, p.154) but for the working-class child, the world is 'far more circumscribed and fearful'

Horizons are configured very differently if you are working-class…. for most white indigenous working-class children, anywhere outside the immediate urban locale is strange and unfamiliar. Their relationship to the wider world, geographically, socially and psychologically, is characterised by boundaries rather than accessible horizons (Reay, 2000, p.155)

Deprivation *and academic achievement*

Linkages have been made between socio-economic status and academic achievement across the world (Crozier, Reay & James, 2011; Gouvias, Katsis & Limakopoulou, 2012; Forsey, 2010; Goodman & Gregg, 2010)

Borooagh and Knox (2016) highlighted academic underachievement by males in Northern Ireland, particularly from low socio-economic groups.

In Northern Ireland, male academic underachievement is particularly evident in the Protestant community (Borooagh & Knox, 2016; Purvis, 2011).

How else might tracking devices be used?

Connections between deprivation, mobility and physical and mental health

Effects of growing up in areas of disadvantage have been shown to persist into adulthood, reducing 'wellbeing' (Miller, Connolly and Maguire, 2013).

There is the potential for more research here

Knowledge Exchange Seminar Series (KESS)

...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland