The evolution of geographical distances separating ex-partners following partnership dissolution: The impact of spatially linked lives

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Introduction

Spatial mobility following partnership dissolution is spatially constrained (Feijten & Van Ham, 2007, 2013). In a context of rising divorce, increasing family complexity and the raised profile of fathers' involvement in parenting, an increasing number of separated parents will experience constraints in finding an optimal residential location: many will feel a need to remain close to the ex-partner because they want to share parenting responsibilities (Bakker & Mulder, 2013; Stjernström & Strömgren, 2012) or facilitate children visiting them or the ex-partner.

Several studies have indicated that divorced people move frequently, but the distance of their moves is usually short (Feijten & Van Ham, 2007, 2013). There is now also some research on the distance of moves at the occasion of separation (Mulder & Malmberg, 2011, for Sweden; Thomas, Mulder & Cooke, submitted, for the UK) and on the occurrence of interstate migration at the occasion of divorce for the United States (Cooke, Mulder & Thomas, submitted). What is lacking thus far is a more comprehensive picture of spatial mobility, distances moved, and distances separating the ex-partners in a longer period following divorce or separation. With this paper we aim to fill part of this research gap by focusing on how the spatial distance between the residential locations of ex-partners develops after separation. A key issue in our approach is the differences between ex-partners with dependent children and those without. We also pay attention to gender differences in the impact of custody arrangements and of new partnerships.

We aim to answer the following research questions:

> *What is the nature of the evolution of the geographical distance separating the residential locations of ex-partners with time?*

> *How do the initial distance, the changes in this distance, and the likelihood of living close, depend on the ex-partners' characteristics including whether they share a dependent child?*

> *How does the start of a new partnership affect the distance separating ex-partners and the likelihood of living close?*

> *How do the ex-partners' ties to an area (other than children) influence the distance separating ex-partners and the likelihood of living close to each other?*

Theoretical background

The paper will apply a theoretical framework based around the recent discussions on complex spatially linked lives and mobility decision-making and behaviour (Coulter *et al.*, 2015; Findley *et al.*, 2015). More specifically we will draw on the notion of complex linked lives and the way in which spatial careers can be crucially informed by relational processes and actors (most clearly in this case

ex-partners and shared children) operating beyond the immediate co-residential household. Indeed, one expectation is that parental ex-partners will continue to coordinate their spatial proximity through shared children, while non-parental ex-partners will have no such social or spatial bond to maintain in a post-separation context, and so should be freer to choose a more optimal residential location that satisfies their newly individualized preferences.

Data

We derive our data from Waves 1-18 of the British Household Panel Survey (BHPS) (Taylor et al., 2010). The survey is designed to collect data on a nationally representative sample of adult (aged 16+) members of households in the UK (N.B. Northern Ireland was not included until Wave 11 of the BHPS). The survey is longitudinal in design, collecting a broad range of questions on individual (n≈10,000) and household (n≈5,000) socio-economic and demographic characteristics, and offers an excellent opportunity to study the spatial careers of ex-couples following partnership dissolution. The specific sample is a collection of all two-sex co-residential couples who physically separate between waves t and t+1 and remain separated for the duration of the survey (i.e. do not re-form their partnership). Following the removal of cases due to survey attrition and item non-response we achieve a pooled sample of 980 ex-couples with 3,524 observations. Whilst panel attrition and other forms of survey non-response are a recurring concern in analyses of this type, and of this subject, previous checks on attrition in the BHPS suggests that the pattern of attrition amongst adults who separate appears to be random once controls for certain socio-demographic characteristics (e.g. age, marital status, socio-economic status) are included (Fisher and Low, 2012; Brewer and Nandi, 2014). For our dependent variable, we use BHPS Special License Lower-Level Super Output Area geo-coded data to calculate the centroid-centroid Euclidean distances separating ex-partners at each wave.

The key independent variable of interest is whether or not the ex-couple share a dependent child. Beyond this we collect additional time-constant measures of the ex-couple taken at the time of separation: age of ex-partners, educational attainment of ex-partners, labour market participation of ex-partners, the form of housing tenure, ties to the locale of ex-partners, the degree of urbanisation and their pre-separation marital status. We also derive time-varying variables: time since separation (this forms the necessary measure of time), age of ex-partners, and changes to household structure for ex-partners (i.e. lone parent: dependent children; lone par: non-dependent children; new couple no children; new couple: dependent children; new couple: non-dependent children; single – of which the male and female ex-partners can take on one of the values and both values are combined to form a single household indicator).

Methodology

To explore this topic we require a multilevel random effects (RE) model with random intercepts and random slopes (coefficients) and cross-level interactions (Snijders and Bosker, 2012). The RE methodology has many advantages over the more commonly used fixed-effects approaches to repeated measures analysis, with the particular advantages for this analysis being that we can explore the within- and between-couple variability as well as include time-constant characteristics such as whether the ex-couple had shared dependent child(ren) prior to separation and whether

one, other or both ex-partners have ties to places elsewhere[1]. Indeed, when applied to repeated measures data these RE models are often called growth curve models, given their ability to explore the ways in which certain trajectories develop over some measure of time. As such, growth curve models allow us to produce the developmental trajectories of the distance separating each ex-couple and estimate the amount of variability in both trajectory (slope) and baseline (intercept). More specifically, given our discussion above, we can explore how the baseline distance (the distance initially separating ex-partners when one, other or both move out of the former joint home) and rate of change (i.e. in the distance separating ex-partners as the time since separation increases) may vary according to whether ex-couples have shared dependent children at separation. We will also allow the coefficient for parental status to vary (using a random coefficient) which will further allow for the detection of whether ex-couples with shared children are also very consistent in their 'staying close' behaviour – that is, where most parents want to stay close to their dependent children, we can expect relatively little variation about the overall mean in the distances separating parental ex-couples, and perhaps quite a lot of variation about the mean distances separating non-parental ex-couples, where spatial restrictions are reduced. Beyond this, the fixed-part of the model will allow for the examination of the importance of gender differences in the impact of custody arrangements, ties to location and of new partnerships for determining differentials in the distances separating the ex-partners.

Preliminary empirical results

Below we show empirical growth plots which are temporally sequenced graphs, useful for providing an initial descriptive depiction of the ways in which the distance separating ex-couples develops over time. Given that one our key interests is to explore the significance of children for informing bound spatial careers and socio-spatially linked lives, Figure 1 shows how the distances change with time for a random sample of nine ex-couples without shared dependent child(ren), and Figure 2 shows the same but for nine ex-couples who do share dependent child(ren). The y-axis in the figures shows the distance in km and the x-axis represents the time since separation. It is immediately clear that ex-couples with no shared child(ren) tend to move far longer distances apart than those with shared child(ren). Indeed, in this random sample, those with shared children tend to be restricted to distances generally below 25 km, even in the later years following separation. While those with without shared child(ren) appear to move further distances on apart on average, there also appears to be a trend towards increasing distances with time, though a large amount of variation is observed in this pattern of growth. These initial empirical patterns appear to fit with our theoretical expectations and are certainly patterns that demand further exploration and extension via the methodological approach outlined above[2].

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[1] N.B A common criticism of RE models is that they suffer from issues of endogeneity between the time-varying coefficients and the time-invariant residual term, however, the Mundlak formulation can be employed to address this issue (Bell and Jones, 2015).

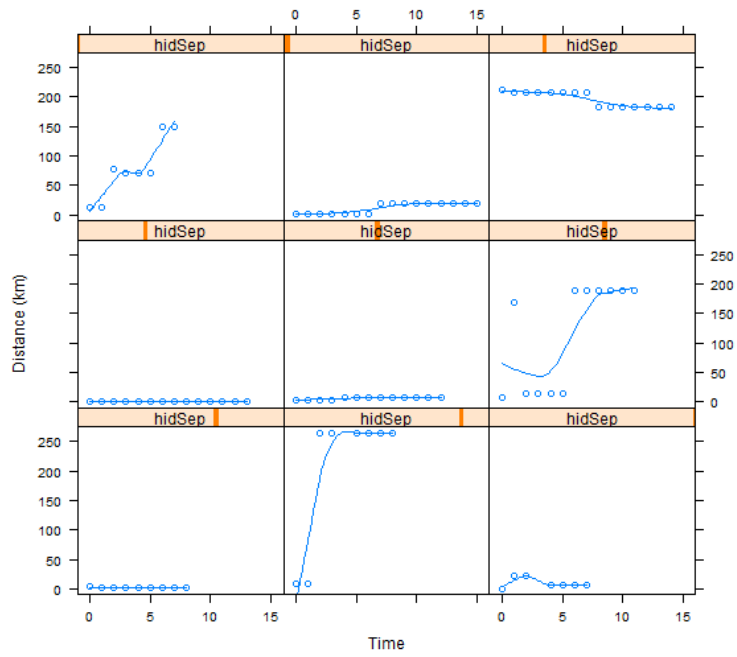[2] N.B Repeated random samples were drawn and the same substantive findings were revealed.

Figure 1. Distance separating ex-partners through time: No shared child(ren)
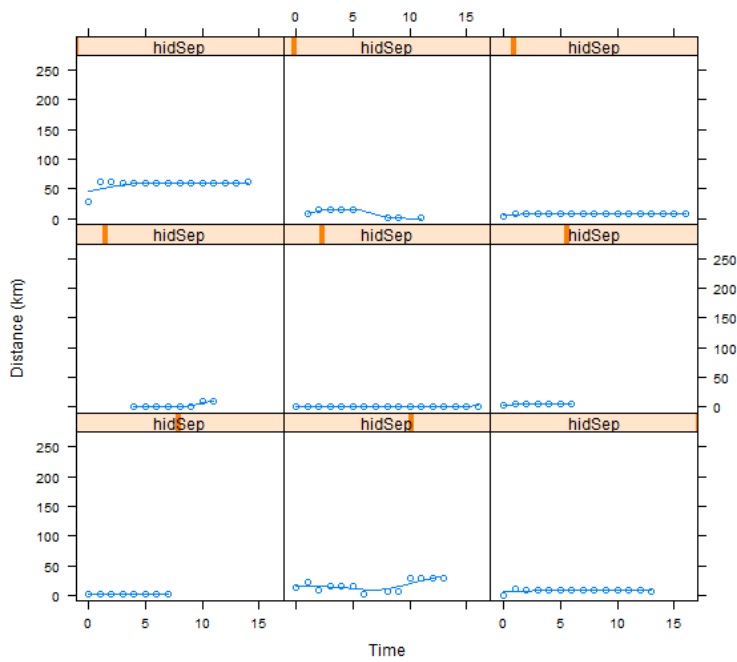

Figure 2. Distance separating ex-partners through time: With shared child(ren)

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