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Meeting online or offline? Patterns and trends for co-resident couples in early 21st Century Britain

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Abstract

Data from the 2010-12 National Survey of Sexual Attitudes and Lifestyles (NATSAL-3) are used to document trends and patterns in where co-resident couples in Britain first met, focusing specifically on the rapid rise of meeting online, which both echoes and differs from a corresponding US increase; in Britain, meeting online largely appears to have substituted for meetings in settings to which access is relatively unrestricted, e.g. pubs and public places. While meeting online appears widespread across British society, variations are identified and linked to ideas from the online dating and place of meeting literatures. Offline partner availability, and how well the processes within offline and online settings suit particular types of people, are interpreted as underpinning many of these variations. Perhaps surprisingly, meeting online does not appear class-related, and involves levels of socio-demographic homogamy that do not differ systematically from those for compositionally-heterogeneous offline settings.

Keywords

Online dating; internet dating; marriage; cohabitation; relationships; homogamy; heterogamy.

Introduction

This article complements existing international literature on couples meeting online with an analysis of trends and patterns in 21st Century Britain. In the US, Smith and Duggan (2013) reported that a substantial minority of single adults had used online dating or dating-related apps, and that over a tenth of committed relationships commencing during the preceding decade started online. Rosenfeld and Thomas (2012) reported a figure of over a fifth for post-2005 heterosexual relationships, together with a much higher figure for same-sex relationships. Like internet usage, online dating rates vary between population subgroups, both in the US and elsewhere; relevant characteristics include: age, income, education, disability, area type (e.g. urban/rural), and ethnicity (Baym, 2015; Sautter *et al*., 2010). More specifically, the proportion of US couples who met online varies with respect to stratification-related factors, age and ethnicity (Rosenfeld and Thomas, 2012; Cacioppo *et al.* 2013).

Here, data from NATSAL-3 (2010-12; Erens *et al*., 2013) are used to identify factors related to the odds of couples having met online, following an examination of the phenomenon's growth, similarly under-documented for Britain. The increasing prominence of dating websites and apps has prompted an extensive academic and popular literature, but studies often take relatively narrowly-focused viewpoints, and frequently lack sociological or interdisciplinary perspectives (Hobbs *et al*., 2017). Consequently this article's research questions are relatively broad, as follows:

- Which of the diverse range of factors (e.g. demographic, stratification-related, biographical, physiological, geographical) suggested by past analytical discussions and empirical studies of online dating, or of places of meeting, can be shown to relate to meeting online in contemporary Britain?

- To what extent, if at all, do the factors identified as empirically-relevant resonate with key themes from the above literatures (e.g. markets, rationalization, the effectiveness of online processes, partner similarity)?

Echoing other studies (e.g. Potârcă, 2017), the analyses incorporate both married and cohabiting couples; however, they focus on co-resident partnerships rather than self-identified couples more generally (unlike, for example, Rosenfeld and Thomas, 2012). This focus reflects the presence of data corresponding to current, co-resident partners which are unavailable for other partners; similarly, the focus on current relationships reflects the partial, selective information available for past relationships.[1] Accordingly, the findings do not reflect online dating's role as a source of 'dates', short-term companionship, or 'living apart together' (LAT) relationships. However, studies have not always distinguished between online meetings in contexts specifically designed for meeting potential partners and those occurring elsewhere online (e.g. Potârcă, 2017), a potentially important distinction (Sprecher, 2009; Cacioppo *et al.* 2013) which NATSAL-3 made possible here.

Literature review

The rise of meeting online

To an extent the growth in online meetings reflects the broader growth of internet usage. In addition to 'networked relationships', facilitated via mutual acquaintances' pages on social networking sites, other online activities not explicitly focused on relationship formation but generating social contacts, e.g. gaming, can be quite effective sources of romantic partners (Sprecher, 2009: 767). Rosenfeld and Thomas (2012) suggest that the growth also reflects online dating facilitating more efficient partner searches than pro-active, offline mechanisms

like personal ads, although it may not be particularly efficient in other respects: for example, the proportion finding long-term partners may be very low (Sprecher, 2009; Chambers, 2013). Interestingly, Langhamer (2013: 108) observed that higher expectations of love and personal fulfilment in the late 20th Century led to 'efficient' ways of finding partners being seen as 'calculating and cold-blooded' (cf. Knudson, 2017); at that time, the low proportion of couples in Britain meeting via longer-standing pro-active approaches partly reflected their lack of cultural legitimacy (Lampard, 2007; Lampard and Peggs, 2007). Crucially, online dating does not appear to have shared this drawback for long (Finkel *et al*., 2012).

Earlier pro-active approaches were sometimes mediated, sitting uncomfortably with a shift away from third-party involvement in couple formation ('brokerage': Rosenfeld and Thomas, 2012: 527), a shift reflecting contextual changes including individualisation (cf. Langhamer, 2013). In addition, 'computer dating' may have been constrained by scepticism regarding the compatibility of love and technology, a scepticism seemingly less applicable to online dating, possibly because it is perceived as facilitating autonomous choice. Indeed, online dating's apparent consistency with the application to relationships of 'a logic of consumerism and psychology' led Illouz (2007: 86) to view it as resonating with broader relationship change.

The initial US growth in online dating may have been driven by people lacking adequate access to potential partners; a subsequent broadening of acceptance and usage arguably reflected the social diffusion of accounts of successful online dating (Sautter *et al*., 2010) and increasingly prominent, positive portrayals within popular culture, the media, and self-help literature (Finkel *et al*., 2012; Chambers, 2013). Additionally, Illouz (2007) suggests a growing acceptance of market-like processes for finding 'love'. However, the growth in meeting online may also be linked to wider changes in places of meeting; studies of these (e.g. Bozon and Héran, 1989; Lampard, 2007) have sometimes contrasted 'public' (publicly-accessible) locations, such as

cafés and bars, with 'select' locations, to which access is limited to particular groups or social networks, e.g. workplaces and places of study. This distinction, like meeting place trends more generally, has typically been perceived as class-related (cf. Langhamer 2013). Bozon and Héran's third, 'private' category, which relates to meetings occurring via personal social networks[2], has been viewed as associated with class-related social closure; the use of dating services is also often seen as linked to this, or to class more generally (Schmitz, 2016; Knudson, 2017).

Explaining meeting online: prevalent and multi-faceted approaches

Various authors (e.g. Dröge and Voirol, 2011; Schmitz, 2016) have observed that the online dating literature often foregrounds economic, market-related or social exchange approaches (e.g. Hitsch *et al*., 2010; Skopek *et al*., 2011), with even non-economic analyses sometimes appearing to assume (homogeneously) rational choice and neglect biographical heterogeneity, and with sociological analyses still often emphasising exchanges of capital (Schmitz, 2016; Knudson, 2017). However, some authors employ more multi-faceted analytical approaches. Schmitz views the prevalent approach's rational choice 'core' as requiring a complementary Bourdieusian framework, albeit endorsing its focus on hierarchical exchange. A wide-ranging analytical review by Finkel *et al*. (2012), notionally from a psychological science perspective, highlights three key features of online dating: its enhancement of access to potential partners, the specific communication processes involved, and its (varying) ways of 'matching' individuals.

The 'market approach' in detail

Like studies of places of meeting, market-orientated analyses of online dating often focus on hierarchical characteristics, e.g. education, stratification-related characteristics or 'attractiveness', viewing potential partners' acceptability as determined by their 'value' relative to the user's (Skopek *et al.* 2011: 183). Another recurring feature is 'thin' (or 'thick') markets: Rosenfeld and Thomas hypothesise that groups experiencing 'thin markets', in terms of accessing potential partners, will more often utilise online contexts, and consequently more often meet partners online (2012: 523-7). Their discussion foregrounds two groups: lesbian/gay people and the 'middle-aged', conversely identifying students' offline environments as providing plentiful potential partners. Partner availability may be restricted by constrained access to, limited time in, or avoidance of more 'traditional' settings for meeting partners (Sprecher, 2009; Potârcă, 2017); more specifically, McWilliams and Barrett (2014) suggest older individuals tend to perceive some offline settings as less appealing or effective for this purpose.

While 'thin markets' may motivate online partner searches, whose search costs may be relatively low (Oyer, 2014), users often question online dating's effectiveness for locating partners (Knudson, 2017), experiencing it as a time-consuming process (Ariely, 2011), or as addictive but inefficient (Kaufmann, 2012). Rosenfeld and Thomas (2012) acknowledge variations in efficiency between different online and offline contexts, although a context's effectiveness may also be contingent upon users' characteristics. In addition, even numerous potential partners and limited competition may not prompt a high rate of long-term relationship formation: substantial interest from other users may heighten expectations of partners (Heino *et al.*, 2010), or 'choice overload' may occur (Finkel *et al.*, 2012: 32). Furthermore, 'thick markets' like dating sites are not necessarily less competitive; moreover, specialised dating

sites may only work effectively in densely-populated areas (Oyer, 2014), with apps being most effective in metropolitan centres (Hobbs *et al*., 2017).

More generally, socio-geographic factors, e.g. population density or composition, can impact on relationship formation behaviour in a market-related way, with urban-rural differences potentially affecting online dating usage and effectiveness (Knudson, 2017). Furthermore, places of meeting vary according to individuals' lengths of residence within an area (Lampard, 2007); geographical mobility may also hinder couple formation, encouraging online dating (Lampard, 2016; Sautter *et al*., 2010).

Attitudes, consumerism and (rationalized?) love

Online dating usage is not purely market-driven. Perhaps unsurprisingly, users are often proactive, motivated relationship-seekers (Finkel *et al*., 2012; McWilliams and Barrett, 2014), and one strand of literature complements market-related ideas with considerations of consumerism and individualisation (e.g. Illouz, 2007; 2012; cf. Bauman, 2003), highlighting the possibility that users disproportionately have rational, consumerist relationship orientations. Thus users may tend to belong to groups particularly receptive to individualisation and rationalization, which consequently engage more frequently in rational practices, e.g. the middle classes (Schmitz, 2016). Illouz views online dating as both promoting and promoted by the rationalization of love, with marketing language, internet technology and an ideology of choice eroding earlier conceptions of love. However, Dröge and Voirol (2011) stress online dating's compatibility with key features of less rationalized notions of love, e.g. an 'extraordinary' connection with an unique other, viewing 'romantic' love and 'rationalized' love as co-existing within the online dating process, albeit somewhat uncomfortably (cf. Schmitz, 2016).

More generally, attitudes to online dating continue to vary (Sautter *et al*., 2010), and users may have less traditional attitudes in broad terms (Finkel *et al*., 2012; Chambers, 2013). Nevertheless, most US adults regard it as a good way to meet partners (Smith and Duggan, 2013), although some still view it as for the 'desperate' (cf. Lampard and Peggs, 2007: 126); others may be sceptical about the compatibility of 'love' with the 'consumerist illusion' presented by online dating (Kaufmann, 2012: 6). However, scepticism may not always prevent usage; some users only associate the 'market metaphor' with online dating's initial stages, or adopt strategies resisting this metaphor's assumptions (Heino *et al*., 2010), while most app users would prefer to find love face-to-face (Hobbs *et al*., 2017).

Importantly, Illouz highlights that compatibility with 'rationalized' understandings of relationship formation does not guarantee online dating's effectiveness, emphasising the 'repeated feeling of disappointment' many users experience, particularly when unsatisfactory offline encounters shatter online fantasies (2007: 95; 2012; cf. Finkel *et al*., 2012). Consequently, users sometimes abandon the process, or use it at length without resolving the 'disparity between … expectations … and experience' (Illouz, 2007: 96; Dröge and Voirol, 2011). Furthermore, online dating encourages comparative evaluation of potential partners, which, compared to sequential encounters, may reduce the likelihood of committing to someone specific, as may sites' apparent promotion of idealised 'soulmates' and 'perfect' relationships (Finkel *et al*., 2012; cf. Bauman, 2003). Conversely, Hobbs *et al*. (2017: 281) suggest that technology can be harnessed effectively to pre-existing, less consumerist relationship goals, including 'meaningful partnerships'.

Overall, the above literature suggests that rational, consumerist orientations have complex, potentially counter-acting relationships to online dating usage and its effectiveness. It thus

remains unclear whether such orientations, or groups disproportionately possessing them, should be expected to be positively associated with meeting long-term partners online.

Bodies, words and online/offline processes

The salience of the visual and physical differs online compared to offline (Dröge and Voirol, 2011; Baym, 2015), in a complex, ambiguous way within online dating processes. While Illouz stresses the 'disembodying' nature of internet technology (2012: 228-9), Chambers (2013: 137) suggests that dating sites promote virtual yet 'hyper-embodied' intimacy. Profile pictures can affect online dating's effectiveness (Baym, 2015), and physical characteristics, including height and weight, may affect contact behaviour (Skopek *et al*., 2011); in Germany, women with higher BMI values attract less interest online (Schmitz, 2016), and US evidence suggests a below-average mean weight for women dating online (Hitsch *et al*., 2010). However, the relative importance of physical 'attractiveness' and language skills differs from offline settings (Baym, 2015), and, while profile images' perceived importance can prompt self-marketing reflecting conventional expectations of attractive bodies and youthful liveliness (Illouz, 2007; McWilliams and Barrett, 2014), the online context crucially allows a degree of control over physical self-presentation (Heino *et al*., 2010).

Some users initially prioritise qualities other than physical attractiveness (Heino *et al*., 2010); furthermore, Illouz suggests that mental images of correspondents are highly dependent on textual information, including linguistic exchanges and their originality, with knowledge preceding embodied attraction and potentially interfering with 'visual and bodily evaluation' (2007; 2012: 232). This may downgrade physical characteristics' importance when users meet offline, relative to a pre-existing sense of intimacy or attraction (Sprecher, 2009; Finkel *et al*., 2012); however, an idealized image, or disembodied sense of emotional connection, can

prompt Illouz-like 'disappointment' when meeting offline lends bodies greater salience (Dröge and Voirol, 2011; Chambers, 2013).

Both physicality's online relevance, and profile presentations of physical selves, appear gendered (Sprecher, 2009; McWilliams and Barrett, 2014; Schmitz, 2016). The literature often interprets gendered variations as reflecting bodies' marketability, but gendered experiences of managing embodiment online are also salient. Milton (2017) discusses the discomfort of midlife single women with various (offline) social spaces as contexts for finding partners, highlighting salsa classes' appeal as a safe, age-appropriate context for managing embodiment; members of groups experiencing sizeism, ableism, etc., may similarly adopt online dating as a less uncomfortable context for managing their embodied selves. Some physically-disabled people view online dating as an effective vehicle for finding partners who accept their impairments (Saltes, 2013), although disclosing these online can also bring challenges, including rejection.

'Niche' dating sites in Britain, corresponding to characteristics like age, sexual orientation, disability and body size, may partly reflect 'thin markets', but their usage may also reflect discomfort with offline settings which apparently favour people closely matching normative expectations about relationships or relationship-seekers. While market constraints may encourage LGBTQ individuals to seek partners online, Parisi and Comunello (2017) suggest heteronormativity within offline environments as another motivation, speculating that other marginalised groups may be similarly motivated.

Skills, lifestyles and biographies: salient forms of diversity?

Both multi-faceted internet usage and online skills may promote online dating (Sautter *et al.*, 2010; Knudson, 2017), although meeting offline quickly can restrict such skills' relevance (Heino *et al.*, 2010). Illouz (2007: 107) suggests that online dating particularly favours competence at 'emotional verbal communication', but it may also be an effective strategy for the socially anxious or shy (Baym, 2015; Sprecher, 2009). Bauman (2003) speculates that it appeals to people deprived of interpersonal skills relevant to some offline contexts by a shift away from face-to-face sociability. More generally, limited experience of employing 'dating skills' successfully offline may motivate online dating usage, although conflicting evidence exists regarding users' social skills (Finkel *et al.*, 2012).

Behaviours like drinking may be linked to an affinity with particular offline settings, potentially affecting online dating's appeal. Changing lifestyles with increasing age apparently induce a growing distaste for some offline contexts; analytical discussions foregrounding the life-course in broader terms (e.g. Knudson, 2017) suggest that relationship histories and/or parenthood, which often influence relationship formation behaviour (Lampard and Peggs, 2007; Sautter *et al.*, 2010), may also affect the likelihood of online meetings. In general, online dating behaviour will reflect 'biographical and social preconditions' arising from past experiences, as these shape relationship orientations and preferences (Schmitz, 2016: 59-62); from a Bourdieusian perspective, the habitus promotes relevant variations in relationship behaviour, independent of market-related considerations (2016: 96-100).

Meeting online and partner (dis)similarities

The literature foregrounds online dating's relationship to similarities and differences between partners, notably for 'race'/ethnicity, but also education, religion, age, and physical characteristics (Hitsch *et al*. 2010; Skopek *et al*., 2011; Rosenfeld and Thomas, 2012; Potârcă, 2017). 'Utopian' speculations that online meetings promote heterogamy are not uncommon; these often assume weaker third-party influences (Potârcă, 2017), and sometimes that the internet is transformative, counteracting traditional hierarchies (cf. Dröge and Voirol, 2011; Jamieson, 2013, provides a critique). However, it remains unclear whether online dating should be expected to increase or reduce homogamy (Potârcă, 2017), with the evidence varying according to the form of (dis)similarity (Rosenfeld and Thomas, 2012; Hitsch *et al*., 2010).

Crucially, Rosenfeld and Thomas (2012) highlight that neighbourhood homogeneity can reduce heterogamy for offline meetings, but using the internet to satisfy homogamy preferences could also reduce heterogamy, assuming a sufficient supply of similar partners; in addition, utility maximisation in large online markets may increase homogamy (Oyer, 2014). However, Potârcă (2017) notes that individuals more open to heterogamy may disproportionally self-select into online dating, and that the online context may shift the emphasis from socio-demographic towards lifestyle similarities; sites employing 'scientific' matching, applying algorithms informed by (predominantly psychological) 'relationship science', may also divert users from socio-demographic matching towards personality-based compatibility (Sprecher, 2009; Finkel *et al*., 2012).

However, Rudder (2014) queries this reduced emphasis on socio-demographic characteristics, suggesting that the information available often influences choices; the sheer presence of socio-demographic characteristics within profiles may affect decision-making or facilitate

preferences, with many users only contacting individuals closely matching their socio-demographic aspirations (Illouz, 2012). Schmitz (2016) suggests that dating sites' technical and structural features tend to consolidate social distances, counterbalancing the absence of offline social structures; more specifically, search process practicalities may often drive users to filter profiles using characteristics like age (Heino *et al*., 2010), potentially rendering online searches narrower than offline. While age-based filtering could alternatively reflect preferences or cultural norms, users may be influenced by what sites imply is important (Rudder, 2014).

Overall, it seems likely that user 'preferences' and behaviour are sometimes shaped dynamically by the online dating process (Schmitz, 2016), or by the absence of the constraining social homogeneity and third-party influences characteristic of some offline settings. However, orientations to homogamy may also influence the decision to use online dating, increasing the difficulty of establishing the causal mechanisms behind homogamy patterns.

Data and measures

NATSAL-3 (2010-12; Johnson, 2015) involved a multi-stage, clustered and stratified random sample of 15,162 people aged 16-74 years in private households in Britain; the significance values in the statistical analyses presented here account for this complex sample design. To compensate for unequal inclusion probabilities, weights were applied. Since some measures post-date couples' first meetings, causal interpretations of related findings need to be cautious.

For most respondents, NATSAL-3's place of meeting data relate to their three most recent sexual partners. This limits the (sub-)sample available and affects its representativeness, since the required information is unavailable for partnerships not involving the recorded forms of sexual activity, and for respondents who had had sex with several people more recently than with their co-resident partners. Overall, 7,132 respondents were currently living with partners; excluding 416 couples (5.8%) lacking key data[3] left a sample of 6,716. This article focuses on two sub-samples: couples whose co-residence started from 1990 onwards (n=4,701), and 2000 onwards (n=3,434).

Within the list of possible places of meeting provided to respondents, two correspond to meeting online: 'Internet dating website' and 'Online, but not through a dating website'. The latter is self-evidently less specific, covering respondents who met partners in various online contexts not explicitly geared towards finding partners, e.g. via social media, but possibly also via apps.

All the independent variables in this article are operationalised in categorical form, accommodating substantial non-linearity in the effects of variables such as age when co-residence started (used in preference to age when relationship started because of its greater

reliability). As Table 2 shows, most variables are straightforward dichotomies, sometimes condensed versions of more detailed measures: e.g. for number of co-residential partnerships, the difference between first and second partnerships was negligible. For the independent variables' distributions, see Table 2's first column[4].

The class measure used was NS-SEC (Erens *et al*., 2013: 38), with homogamy being assessed (e.g. in Table 4) by comparing professional/managerial occupations (Analytic Classes 1-2) to other occupations. Ethnicity and ethnic homogamy were measured using the five categories available for both partners: 'White', 'Mixed', 'Asian', 'Black', and 'Chinese'/Other. Alcohol consumption and BMI were categorised using standard thresholds, and women's height was categorised with reference to the height at which a diminishing proportion of taller men substantially reduces availability. One geographical measure, of area deprivation, reflects NATSAL-3's division of a standard measure (IMD) into quintiles; the other utilises NATSAL-3's population density banding, enhancing it by specifically identifying rural areas. Limiting disability (or illness) is self-reported.

Analyses

TABLE 1: Trends in the place of meeting distribution (Percentages)				
Place of meeting	**1990-1999**	**2000-2003**	**2004-2007**	**2008-2012**
School	5.4	6.1	5.4	6.9
Uni/college	5.9	6.3	7.0	8.3
Work	20.4	22.8	17.5	16.3
Pub/club/dance	21.5	21.1	19.8	16.0
Friends/family	24.8	22.2	23.0	25.8
Club/group	4.3	4.2	4.6	3.1
Holiday/travel	1.8	1.3	1.8	2.0
Internet dating	0.2	1.5	5.1	7.3
Other agency/ad	2.0	1.0	0.8	0.8
Other online	0.2	1.0	1.7	3.6
Always known	3.8	4.0	4.2	3.4
Neighbourhood	3.7	2.9	2.7	2.6
Arranged marriage	2.3	3.3	3.0	1.5
In a public place	3.2	1.7	3.0	2.2
Other	0.6	0.7	0.6	0.3
N	1,267	907	1,247	1,280

Trends in place of meeting

Table 1's place of meeting distributions are not strictly comparable with earlier, NATSAL-2-based findings, as the question wording and set of categories for NATSAL-3 were slightly different.[5] Nevertheless, the distribution for co-residential relationships starting in the 1990s matches closely that for the tail-end of the 20th Century reported by Lampard (2007: 364). Table 1 shows very few online meetings in this period, but, compared to the earlier study, slightly more people reported meeting partners via personal ads, dating agencies, etc., possibly indicating an initial, 1990s upswing in pro-active meetings, reflecting their growing cultural legitimacy.

Table 1 documents the evolving place of meeting distribution across the 21st Century's early years. The increase in online meetings is the most striking feature, with the overall percentage rising to 2.5% in 2000-2003, 6.8% in 2004-2007 and 10.9% in 2008-2012[6]. Its smaller component grows more rapidly later in this period, suggesting that different processes underpin the two online categories' increases, although the difference may reflect when dating sites and apps became available (Finkel *et al*., 2012).

While the rise in online meetings is necessarily counter-balanced by declines elsewhere, most categories lack clear downwards trends. Unsurprisingly, offline meetings via dating agencies and personal ads initially decline, with no rebound echoing the US upswing in offline matchmaking suggested by Knudson (2017). However, the online increase is mainly counter-balanced by a decline for pubs, clubs and dances/discos, especially more recently. The decline in workplace-related meetings is nearly as large, but is accompanied by an increase for universities/colleges, perhaps reflecting a shift from work towards training among young adults; overall, the change for places of work or study is minimal, hence the small, composite decline for public/'local' meeting places (e.g. 'neighbourhoods') may be more salient.

With reference to Bozon and Héran's typology (1989), over three-quarters of the online increase is counter-balanced by decreases for 'public' locations, with the small decline for 'select' contexts largely relating to offline agencies/ads. Overall change for meetings involving 'private' settings/processes, including arranged marriages, appears minimal. However, given the late 20th Century trend from 'public' towards 'select' meeting places (Lampard, 2007), online meetings may be substituting more for meetings in 'select' locations than the above changes suggest. Nevertheless, the rapid, substantial decline for 'public' settings suggests that many meeting partners online would otherwise have done so in 'public' settings, hence the

online increase seems unlikely to reflect individuals seeking the social closure facilitated by (some) 'select' contexts.

Notable differences exist between these trends and the initial US rise in online meetings, which involved a substantial decline in meetings via friends/families, but none for settings like bars and restaurants (Rosenfeld and Thomas, 2012); the British trends thus sit less comfortably with viewing the online increase as reflecting a shift from 'brokerage' towards 'self-introduction' (2012: 527-36). More plausible is some people switching to the relatively accessible, 'thick' online market from that provided by bars, restaurants, etc. (Oyer, 2014), especially since, for groups like older people and women, online dating often appeals more than bars as a context for *pro-active* partner searches (McWilliams and Barrett, 2014).

TABLE 2: Met online or elsewhere (Logistic regression analysis)

	% in category	Odds ratio	*P*	% online
Start of co-residence (RC: 2000-03)		(***)	0.000	2.6
2004-07	35.9	3.14***	0.000	6.8
2008-12	33.4	6.27***	0.000	10.9
Age at start of co-residence (RC: < 20)		(***)	0.000	2.4
20-24	25.3	1.07	0.864	3.7
25-29	24.8	1.31	0.461	4.7
30-34	15.7	2.78**	0.005	9.1
35-39	10.3	2.70*	0.011	8.5
40-44	6.7	2.90**	0.009	11.0
45-49	4.4	5.82**	0.001	14.5
50-54	2.3	9.36***	0.000	24.1
55+	3.2	3.26*	0.019	10.7
Area type (RC: Low p.d./Rural)		(*)	0.019	9.1
Low population density/Not rural	43.2	0.63	0.081	7.0
Medium population density	21.4	0.42**	0.004	4.4
High population density	24.9	0.76	0.313	7.8
Area deprivation (RC: Quintile 1)		(*)	0.022	9.0
Quintiles 2-3	40.0	0.63*	0.028	5.5
Quintiles 4-5 (Most deprived)	41.1	1.03	0.885	7.2
Has not always lived in locality	68.6	1.62*	0.016	7.9
Currently full-time student	4.8	0.19*	0.036	1.2
No qualifications	11.2	0.52	0.074	4.9
No internet access	5.6	0.27*	0.015	2.1
Same-sex partnership	2.0	1.22	0.646	12.9
BMI: Women (RC: BMI <= 25)		(**)	0.002	4.1
25 < BMI <= 35	16.8	1.91*	0.013	8.5
BMI > 35	2.5	3.91**	0.001	11.8
Height >= 170cm: Women	11.6	1.59	0.065	8.5
Men (RC: See below)	52.6	1.11	0.655	7.5
Limiting disability (or illness)	11.2	2.02**	0.002	12.5
Alcohol weekly (RC: None)		(*)	0.039	7.5
Not more than recommended	63.9	0.66	0.062	6.9
More than recommended	8.3	0.37*	0.015	4.2
First sex at age 18+	36.1	1.71**	0.002	8.9
3+ partnerships	13.5	1.51	0.057	11.4
Ethnic homogamy/heterogamy (RC: See below)		(*)	0.012	6.9
Homogamy (Asian)	6.4	0.20*	0.028	1.8
Heterogamy (White/Any other)	6.7	1.63	0.060	10.8
Age difference (RC: 0-5 years)		(***)	0.000	7.3
6-14 years	25.7	0.56**	0.007	5.9
15+ years	3.7	0.19***	0.000	3.9
	(N=3,434)	Overall		6.9

Notes: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$; */**/*** in parentheses corresponds to the whole variable. Pseudo-r^2 (Cox and Snell) = 0.084.
RC = Reference category; RC for Men: Women for whom 25 < BMI <= 35 and Height < 170 cm; RC for ethnic homogamy/heterogamy: All other combinations.
See the supplementary file (Table S2) for bivariate odds ratios.

TABLE 3: Selected# multinomial logistic regression results (Disaggregated dependent variable)

	OR(DW)	OR(OO)
Start of co-residence (RC: 2000-03)		
2004-07	3.93***	1.77
2008-12	7.17***	4.74***
Age at start of co-res. (RC: < 20)		
20-24	1.13	1.17
25-29	2.39	0.87
30-34	7.09**	0.93
35-39	6.79**	0.93
40-44	8.78**	0.37*
45-49	15.54***	1.62
50-54	25.35***	1.75
55+	8.52**	0.88
Area type (RC: Low p.d./Rural)		
Low population density/Not rural	0.49*	2.71*
Medium population density	0.36**	1.49
High population density	0.55*	3.74**
Area deprivation (RC: Quintile 1)		
Quintiles 2-3	0.53**	1.56
Quintiles 4-5 (Most deprived)	0.64	3.85***

Notes: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$;
OR(DW); OR(OO) = Odds ratios (dating website/other online)
#: See the supplementary file for the full table (Table S3).

A logistic regression analysis of meeting online

This section examines the effects on the odds of meeting online of various factors suggested by the above discussions, considered simultaneously. Before discussing the results in detail, it highlights notable exclusions from the model presented, since some factors were found to lack relevance, given the presence of those included. For example, adding a relationship status measure provided minimal evidence that the odds varied between cohabiting couples and married couples/civil partnerships; parental status's effect was also negligible. Furthermore, neither the available measures of attitudes towards relationships, nor religious denomination, appeared relevant.

In addition, despite social stratification's prominence in relevant literature (e.g. Sautter *et al*., 2010), stratification measures appeared of minimal relevance, possibly reflecting widespread internet usage; unsurprisingly, the effect of lacking home internet access (5.6% of cases) is substantial, and might have been greater for a retrospective measure. Respondent's occupational class had a weak, statistically non-significant bivariate relationship with meeting online, and a negligible effect if added to the final model. Similarly, measures of respondent's income and their partner's/parents' classes did not merit inclusion.

Table 2 shows the (adjusted) odds ratios and corresponding significance values from the final model. The effects of included variables are significant at the 5% level, with the exception of the effects for: (i) same-sex relationships, compared to those involving opposite-sex partners, (ii) gender, and (iii) a few variables with substantial effect sizes for which $p < 0.10$.

As meeting online became more widespread, some factors' effects may have diminished. However, allowing for interactions with time provided minimal evidence of systematic trends[7].

Checks for gender differences in effects only revealed substantial evidence in relation to physical characteristics (height; BMI), where the relationships only appeared applicable for women, therefore these characteristics are included as women-specific factors. Four factors' effects differed significantly between the two online meeting categories: Table 3 shows the corresponding odds ratios from a multinomial logistic regression disaggregating these categories, reiterating, for example, the steeper initial growth for meetings via internet dating sites.

'Markets': an important part of the story?

Table 2 shows the odds of meeting online increase substantially with age, broadly echoing the US pattern, which Rosenfeld and Thomas (2012) interpreted as demonstrating that younger adults' greater technological engagement is out-weighed by their offline access to potential partners. However, the pattern here predominantly reflects online dating; the evidence for age-related variation in meeting elsewhere online is limited (see Table 3). The pattern is thus consistent with 'thin markets' leading older people to more frequently seek partners via online dating, although it might alternatively reflect increasing discomfort with some offline settings, or more effective diffusion of online dating via social networks at higher ages (McWilliams and Barrett, 2014). In contrast, current full-time students are particularly unlikely to have met partners online, consistent with their having experienced 'thick markets' for partners, although their current student status may not reflect past circumstances.

The odds ratios for two geographical measures both display U-shaped patterns in Table 2, but both measures' effects differ in form between the online meeting categories (see Table 3). The first measure, relating to an urban/rural distinction and population density, shows dating website meetings as more common for those living in rural areas, possibly reflecting 'thinner'

partner markets; however, meeting elsewhere online appears most common for high population densities; serendipitous online encounters leading to co-residence may occur more where prospective partners have a greater chance of living in close proximity.

The second measure, of area deprivation, indicates that social stratification may be relevant, but *geographically*. Table 3 shows that the odds of meeting via online dating were markedly higher within the *least* deprived 20% of areas, possibly reflecting migration by professionals and managers, and their consequently reduced offline access to potential partners; conversely, the odds of meeting elsewhere online were substantially greater in the *most* deprived 40%, perhaps reflecting between-locality variations in the range or nature of offline settings. Table 2 also shows that having lived outside a locality increases the odds of meeting online, albeit this sometimes *causes* relocation.

However, it appears that neither 'thinner' offline markets nor greater online sociability have generated a substantially higher level of online meetings for co-resident, same-sex couples in Britain. The odds ratio in Table 2 comparing them to opposite-sex couples is positive, but small (1.22) and statistically non-significant.[8,9] The corresponding bivariate odds ratio was larger (2.16), but other variables, including year and age when co-residence started, mediated this effect substantially[10]. This suggests a cross-national difference, since Rosenfeld and Thomas (2012) identified a much greater (adjusted) effect, echoing US evidence regarding online dating (Hobbs *et al.*, 2017).

Online settings: comfortable contexts, effective processes?

With regard to physical characteristics, and in contrast to findings cited earlier, Table 2 provides strong evidence of a *positive* relationship between women's BMI values and their odds of having met partners online; online meetings were particularly likely for the highest values, hinting at the relevance of niche dating sites, but the broader relationship is also consistent with generic sites and other online contexts being relatively effective meeting places for women with higher BMI values. Possible explanations include access to individuals attaching less importance to culturally-idealised body shapes, less emphasis on physical characteristics within internet-based relationship development, and, echoing Milton (2017), the discomfort relating to physical selves that some women experience in offline settings. While the result for women's height is statistically non-significant ($p = 0.07$), the substantially higher odds of online meetings for taller women could reflect active choices to seek partners online, arising from 'thin markets' with respect to tall(er) men, assuming heterosexual women still often prefer taller partners. Again, however, the *effectiveness* of online dating in satisfying such a preference might alternatively be crucial.

Saltes (2013) and disability-orientated dating sites both highlight internet use by disabled individuals to find partners; Table 2 shows that the odds of people reporting 'limiting' disabilities or illnesses having met their partners online are twice as high as for other people. While possibly a market-related effect, this just as plausibly reflects the relative effectiveness of offline and online processes, or greater comfort with the latter, notwithstanding the possible challenges involved.

The effect for alcohol consumption[11] in Table 2 may reflect presence in, or comfort with, particular offline settings. Those consuming most had markedly less often met their partners

online than those reporting zero consumption. While other explanations could account for the observed pattern, the above suggestion resonates with the recurring theme of how well-matched individuals are to culturally-normative processes of offline sociability and dating.

Other findings may reflect variations in how well-adapted people's interpersonal skills are to online/offline contexts. The higher odds of meeting partners online corresponding to first sexual experiences at age 18 or over may reflect some individuals' relatively under-developed offline relationship formation skills. Conversely, while not a statistically significant effect ($p = 0.07$), the substantially lower odds for those with no qualifications may reflect textual communication skills' online importance. While other interpretations of these findings are possible, the only other 'relationship history' measure, corresponding to multiple earlier co-resident relationships, has a statistically non-significant effect ($p = 0.06$)[12], and the evidence for broader stratification-related effects is minimal.

Homogamy and meeting places: different forms, different stories?

Table 2 indicates a particularly low level of online meetings among homogamous 'Asian' couples[13]. In addition, while not a statistically significant effect ($p = 0.06$), the level for heterogamous couples including one 'White' partner is substantially higher than for other couples. The first finding highlights the possibility that specific offline contexts or processes promote, or facilitate, particular forms of ethnic homogamy. The second result could similarly reflect the homogamy-inducing ethnic homogeneity of (some) offline contexts, alongside consistent online/offline orientations towards ethnic homogamy. In contrast, Table 2 shows markedly lower odds of online meetings for large age differences. While preferring age similarity is not universal among those dating online (Schmitz, 2016), Skopek *et al.* (2011) found small age differences prompted more frequent responses to initial contacts. However,

users may also place greater emphasis on their age preferences online, filtering for age to achieve manageable numbers of potential partners (Finkel *et al*., 2012).

The age and ethnic homogamy relationships thus pull in different directions; class homogamy, apparently unrelated to meeting online, was omitted from the model. Similarly, Rosenfeld and Thomas (2012) found, in the US, a higher rate of meeting online for ethnic heterogamy, a lower rate for age heterogamy, and negligible evidence of any relationship with educational homogamy.

However, as hinted above, simply comparing levels of homogamy between meeting online and offline overlooks the diversity of offline locations and their relationships to homogamy (Potârcă, 2017). The remainder of this section uses additional, more detailed analyses (see Tables 4-5) to situate meeting online within the spectrum of homogamy levels for different meeting places, casting additional light on the preceding findings.

TABLE 4: Homogamy levels by place of meeting

	% class homogamy	Class odds ratio[a]	% ethnic homogamy	Ethnicity odds ratio[b]	% age homogamy[c]	(Net) age odds ratio[d]
School	65.0	3.37	94.7	74.4	96.6	5.90**
Uni/college	71.4	4.23	92.3	240.2***	91.5	1.82
Work	68.3	4.73	91.3	19.1	62.3	0.39***
Pub/club/dance	63.4	2.37	94.4	8.0	68.2	0.53**
Friends/family	59.8	2.20	93.6	100.9**	68.5	0.48***
Club/group	64.6	3.64	92.6	69.7	72.2	0.82
Holiday/travel	74.5	13.22*	73.7	7.6	46.7	0.23***
Internet dating	61.2	2.19	90.2	15.4	76.1	(1.00)
Other agency/ad	84.6	[∞]	100.0	[∞]	82.6	1.68
Other online	71.0	6.04	87.3	12.6	74.6	(1.00)
Always known	67.1	4.11	94.7	[∞]	63.2	0.41**
Neighbourhood	65.3	3.70	87.9	60.8	73.1	0.73
Arranged marriage	74.5	12.12	91.9	[∞]	50.6	0.21***
In a public place	47.6	0.62	88.5	117.9*	55.7	0.32***
Other	73.3	6.00	82.4	6.5	55.6	0.27*
Total	64.7	3.37	92.4	78.6	70.1	
N	2,953		3,413		3,380	

Notes:
*: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.
a: $p < 0.001$ for the class odds ratio/location interaction; category-specific significance is relative to online dating.
b: Comparing 'White' with all other categories; $p < 0.001$ for the ethnicity odds ratio/location interaction; category-specific significance is relative to the online categories combined.
c: Comparing 0-5/6+ years.
d: Comparing the odds of age homogamy between locations, controlling for age started co-residence; reference category: the online categories combined.

TABLE 5: Ethnic homogamy/heterogamy by place of meeting (Percentages)						
	W/W	M/W	A/W	B/W	A/A	B/B
School	6.6	6.7	1.9	4.2	1.8	7.4
Uni/college	6.7	5.6	9.6	2.1	11.4	11.1
Work	20.2	14.6	28.8	22.9	2.7	7.4
Pub/club/dance	21.5	15.7	9.6	25.0	0.5	2.5
Friends/family	23.5	30.3	21.2	10.4	26.4	37.0
Club/group	4.0	5.6	0.0	2.1	1.4	7.4
Holiday/travel	1.2	2.2	11.5	4.2	1.8	3.7
Internet dating	5.0	2.2	15.4	6.3	0.5	4.9
Other agency/ad	0.9	0.0	0.0	0.0	1.4	0.0
Other online	2.1	6.7	0.0	6.3	1.4	0.0
Always known	3.3	1.1	0.0	0.0	11.4	3.7
Neighbourhood	2.6	3.4	0.0	6.3	2.7	1.2
Arranged marriage	0.0	0.0	0.0	0.0	35.9	0.0
In a public place	1.9	3.4	1.9	8.3	0.9	13.6
Other	0.5	2.2	0.0	2.1	0.0	0.0
N	2,827	89	52	48	220	81

Note:
Within combinations: W='White'; M='Mixed'; A='Asian'; B='Black'.

Table 4 demonstrates that meeting online is associated with greater age homogamy than most other meeting places, notable exceptions being educational settings, which structurally promote age similarity, together with pro-active offline approaches. Educational settings, along with 'local' settings and meeting via friends/family, are also associated with greater ethnic homogamy than meeting online, which compares more closely to workplace meetings[14].

Table 5 again highlights that homogamous 'Asian' couples rarely met online[15], but this parallels strikingly low percentages for pubs, clubs and dances, and workplaces. Homogamous 'Black' couples also rarely met at pubs, clubs or dances. Overall, the meeting place distributions for homogamous 'Asian', homogamous 'Black' and 'White'/'Asian'[16] couples each differ significantly from those for other ethnic combinations; the variation evident in

where different forms of homogamous couple meet reiterates the limitations of focusing on a broad comparison of ethnic heterogamy and homogamy.

Again, Table 4 provides least evidence that meeting online is distinctive in class homogamy terms, although the online categories possibly differ. Internet dating's level of class homogamy is lower than that for offline pro-active approaches, and possibly lower than those for 'select' (and 'local') settings which induce class similarity via relatively homogeneous class compositions. However, its level resembles those for other key 'public' and 'private' settings.

Table 4 has some similarities to results for other national contexts, echoing the higher ethnicity odds ratios for friends/family and arranged marriages, compared to online contexts, found by Potârcă (2017); the higher ethnicity odds ratios for educational settings are also consistent with Potârcă's substantial, albeit non-significant, findings. Crucially, this article's results for class and ethnicity homogamy resonate with her finding of a lack of differences between online contexts and other compositionally-heterogeneous contexts; hence it seems possible that class and ethnic homogamy levels for online contexts may be explicable primarily in compositional terms.

Discussion

In Britain, moving in with someone first encountered online went from unusual to commonplace in little more than a decade. Notwithstanding the variations identified in this article, this phenomenon appears to have permeated through society quickly and widely, rather than remaining specific to groups particularly in tune with online dating's (supposed) rationalized, consumerist ethos. Nevertheless, some of the findings reported here are consistent with an offline shortfall in potential partners driving members of groups more often experiencing such 'thin markets' to seek partners online, although an alternative explanation is that greater partner availability online makes the online process particularly effective, relative to the offline, for these groups.

However, rather than simply reflecting partner availability, online settings' effectiveness could also reflect online processes. Some findings here suggest that people possessing characteristics that weaken their fit with key normative aspects of offline relationship formation, or, more simply, with offline contexts themselves, may find online settings more comfortable or effective contexts for initiating relationships.

Turning to linkages between similarity-related 'matching' and who meets partners online, the findings suggest a limited, varying connection, for socio-demographic characteristics at least, providing little evidence that online dating particularly reflects the desire for social closure that sometimes motivates offline matchmaking. Furthermore, online contexts are not associated with homogamy to the same extent as those offline settings which induce it via their compositional homogeneity. On the other hand, online contexts do not appear associated with greater heterogamy than compositionally-heterogeneous offline settings. Online contexts should perhaps be viewed, in Bozon and Héran's terms, as a new type of 'public' setting; this

would help explain the absence, setting aside the shortfall for the most educationally and technologically disadvantaged, of a positive relationship between social stratification-related measures and meeting online.

Finally, greater age homogamy among couples who met online helps highlight that online relationship formation's distinctiveness may relate to *processes* as much as preference-driven matching or partner availability. Similarly-aged partners may be readily available online, and are sometimes preferred, but age's prominence within the online dating process also encourages its use within decision-making. However, further research is needed to unpack the complex causal relationships between preferences, decisions to date online, online processes, and homogamy/heterogamy outcomes. While focusing on relationship outcomes rather than on online dating usage has some benefits, a lack of data corresponding specifically to the use (successful or otherwise) of online tools is an important limitation here, since it restricts this study's ability to distinguish between explanations based on the frequency and on the effectiveness of online dating.

Acknowledgements

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Endnotes

[1] Meeting places were unavailable for past co-resident relationships for respondents with 3+ subsequent sexual partners.

[2] Primarily in individuals', or their friends'/relatives', homes.

[3] The supplementary file details these exclusions.

[4] The supplementary file documents the dependent/independent variable bivariate relationships.

[5] The supplementary file contains further details.

[6] NATSAL-3's interview dates skew the 2008-12 'year co-residence started' category towards its earlier years.

[7] Some evidence exists (not presented here) of declining effects for number of past relationships and having moved into the area; meeting online may have become less specifically-focused on groups like formerly-partnered or geographically-mobile people.

[8] Like Rosenfeld and Thomas (2012), this analysis aggregates all same-sex couples, given small categories' consequences for statistical inference.

[9] Sexual experience with both women and men was positively, but inconclusively, associated with meeting online.

[10] As Mood noted, such odds ratios are not straightforwardly comparable; however, her results (2010: 71) imply that comparing them under-estimates mediation.

[11] Evidence that non-smokers more frequently met partners online lacked statistical significance.

[12] Nevertheless, the substantially higher odds of online meetings following serial co-residence could feasibly reflect a rational, consumerist and pro-active approach to finding potentially impermanent, 'pure' relationships (Illouz, 2007; Giddens, 1992).

[13] Limited, internally-heterogeneous categories constrained ethnic comparisons; the 'Asian' category nevertheless appears distinctive. Evidence of ethnic differences beyond the homogamy-related patterns was negligible.

[14] The ethnicity-related odds ratios and percentages sometimes 'tell different stories', reflecting the impact of ethnic variation in the proportions meeting partners in particular contexts.

[15] Although arranged marriages sometimes involve websites, of varying 'family-directedness' (Chambers, 2013: 135).

[16] Possibly reflecting transnational couples.

'Meeting online or offline? Patterns and trends for co-resident couples in early 21st Century Britain': Supplementary Information corresponding to the aforementioned *Sociological Research Online* article

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TABLE S1: Distribution of places of meeting 2000-2012 (NATSAL-3)		%
At school	210	6.1
At university or college	248	7.2
At work (or through work)	643	18.7
In a pub, bar, night club, dance, or disco	650	18.9
Introduced by friends or family	814	23.7
Through a sports club, faith group, or other organisation or society	135	3.9
On holiday or while travelling	60	1.7
Internet dating website	163	4.8
Other dating agency / personal ads	29	0.9
Online, but not through a dating website	72	2.1
Had always known each other (for example as family friends or neighbours)	133	3.9
Neighbour/lived locally/house or flatshare	93	2.7
Through an arranged marriage	88	2.6
In a public place (e.g. park, museum, shop, public transport)	79	2.3
Other (please write in at next question)	18	0.5
N	3,434	

Note on exclusion of cases due to absence of key data

A total of 7,132 NATSAL-3 respondents were currently living with a partner. Of these, 158 (2.2%) refused to complete the self-completion section of the survey, which collected the place of meeting data for recent sexual partners, including co-resident partners. For a further 194 respondents (2.7%), place of meeting data corresponding to their co-resident partner were not available.

In 79 of these 194 cases (1.1%), the place of meeting data were simply missing. In 28 cases out of 194 (0.4%), place of meeting data for the co-residential partner were not collected (as a consequence of the design of the research instrument), because the respondent had (apparently) had three or more sexual partners since last having sex with their co-resident partner.

In the remaining 87 cases (1.2%) out of these 194, it seemed possible (and often very likely) that none of the reported places of meeting related to the current co-resident partner; in most of these instances the available data appeared to relate *either* to partners with whom the respondent had had sex in parallel with their current co-residential partnership *or* to partners preceding that partnership. In some cases this may reflect the respondent having only had sex with other partners (i.e. not their co-resident partner) during the preceding five years. However, it seemed more plausible in most cases that the respondent had not followed the self-completion section instructions correctly, failing to interpret their current co-resident partner as being a 'recent' partner.

In a further 64 cases (0.9%) data were not available regarding the point at which the current co-residential relationship started. Hence, overall, 416 respondents currently in co-residential relationships (5.8%) were excluded from the sample used as a starting point, leaving an overall sample size of 6,716.

Note on revisions to the NATSAL place of meeting question wording/categories

Some of the categories[#] post-coded in NATSAL-2 were moved into the list presented to respondents in NATSAL-3, apparently leading to a shift of answers between categories relating to meetings in public and local settings, and to a shift of answers towards categories relating to who was involved in the meeting (i.e. friends and relatives), as opposed to categories focusing on the physical setting. The removal of some physical settings (cafes and restaurants) from the wording for one of the categories* similarly seems to have shifted the emphasis of some responses from places towards people, and perhaps from specific locations to a more general notion of a local setting.

#: The 12th and 13th categories in Table S1 above.

*: The 4th category in Table S1 above.

TABLE S2: Met online or elsewhere (Logistic regression analysis)				
	OR(M)	*P*	OR(B)	% online
Start of co-residence (RC: 2000-03)		0.000		2.6
2004-07	3.14	0.000	2.79	6.8
2008-12	6.27	0.000	4.71	10.9
Age at start of co-residence (RC: < 20)		0.000		2.4
20-24	1.07	0.864	1.46	3.7
25-29	1.31	0.461	1.86	4.7
30-34	2.78	0.005	3.79	9.1
35-39	2.70	0.011	3.52	8.5
40-44	2.90	0.009	4.72	11.0
45-49	5.82	0.001	6.25	14.5
50-54	9.36	0.000	11.76	24.1
55+	3.26	0.019	4.52	10.7
Area type (RC: Low p.d./Rural)		0.019		9.1
Low population density/Not rural	0.63	0.081	0.74	7.0
Medium population density	0.42	0.004	0.46	4.4
High population density	0.76	0.313	0.84	7.8
Area deprivation (RC: Quintile 1)		0.022		9.0
Quintiles 2-3	0.63	0.028	0.60	5.5
Quintiles 4-5 (Most deprived)	1.03	0.885	0.80	7.2
Has not always lived in locality	1.62	0.016	1.75	7.9
Currently full-time student	0.19	0.036	0.19	1.2
No qualifications	0.52	0.074	0.66	4.9
No internet access	0.27	0.015	0.28	2.1
Same-sex partnership	1.22	0.646	2.16	12.9
BMI: Women (RC: BMI <= 25)		0.002		4.1
25 < BMI <= 35	1.91	0.013	1.36	8.5
BMI > 35	3.91	0.001	2.01	11.8
Height >= 170cm: Women	1.59	0.065	1.32	8.5
Men (RC: See below)	1.11	0.655	1.26	7.5
Limiting disability (or illness)	2.02	0.002	2.22	12.5
Alcohol weekly (RC: None)		0.039		7.5
Not more than recommended	0.66	0.062	0.91	6.9
More than recommended	0.37	0.015	0.54	4.2
First sex at age 18+	1.71	0.002	1.62	8.9
3+ partnerships	1.51	0.057	1.96	11.4
Ethnic homogamy/heterogamy (RC: Below)		0.012		6.9
Homogamy (Asian)	0.20	0.028	0.25	1.8
Heterogamy (White/Other)	1.63	0.060	1.63	10.8
Age difference (RC: 0-5 years)		0.000		7.3
6-14 years	0.56	0.007	0.78	5.9
15+ years	0.19	0.000	0.46	3.9
			Overall	6.9

Notes:

Pseudo-r^2 (Cox and Snell) = 0.084; OR(M); OR(B) = Odds ratios (from multivariate and bivariate analyses); RC = Reference category; RC for ethnic homogamy/heterogamy: All other combinations. RC for Men: Women for whom 25 < BMI <= 35 and Height < 170 cm.

TABLE S3: Multinomial logistic regression results (Disaggregated dependent variable)

	OR(DW)	OR(OO)
Start of co-residence (RC: 2000-03)		
2004-07	3.93***	1.77
2008-12	7.17***	4.74***
Age at start of co-residence (RC: < 20)		
20-24	1.13	1.17
25-29	2.39	0.87
30-34	7.09**	0.93
35-39	6.79**	0.93
40-44	8.78**	0.37*
45-49	15.54***	1.62
50-54	25.35***	1.75
55+	8.52**	0.88
Area type (RC: Low p.d./Rural)		
Low population density/Not rural	0.49*	2.71*
Medium population density	0.36**	1.49
High population density	0.55*	3.74**
Area deprivation (RC: Quintile 1)		
Quintiles 2-3	0.53**	1.56
Quintiles 4-5 (Most deprived)	0.64	3.85***
Has not always lived in locality	1.83*	1.33
Currently full-time student	0.27	0.10**
No qualifications	0.55	0.46
No internet access	0.12*	0.49
Same-sex partnership	1.28	0.92
BMI: Women (RC: BMI <= 25)		
25 < BMI <= 35	2.02*	1.73
BMI > 35	4.81***	3.06
Height >= 170cm: Women	1.40	1.95
Men (RC: See Table S2)	1.06	1.26
Limiting disability (or illness)	1.89*	2.49**
Alcohol weekly (RC: None)		
Not more than recommended	0.62	0.67
More than recommended	0.33*	0.44
First sex at age 18+	2.05***	1.73
3+ partnerships	1.41	1.93
Ethnic homogamy/heterogamy (RC: See S2)		
Homogamy (Asian)	0.11*	0.36
Heterogamy (White/Other)	1.47	1.84
Age difference (RC: 0-5 years)		
6-14 years	0.46**	0.88
15+ years	0.20***	0.12

Notes: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$.
OR(DW); OR(OO) = Odds ratios (dating website/other online)

TABLE S4: Place of meeting by each independent variable (Percentages)				
		Offline	Dating website	Other online
Start of co-residence	2000-03	97.4	1.6	1.0
	2004-07	93.2	5.1	1.7
	2008-12	89.1	7.3	3.6
Age at start of co-residence	< 20	97.2	0.8	2.0
	20-24	96.3	1.3	2.4
	25-29	95.3	2.6	2.1
	30-34	90.9	7.1	2.0
	35-39	91.5	6.5	2.0
	40-44	89.0	10.1	0.9
	45-49	86.1	11.3	2.6
	50-54	75.9	21.5	2.5
	55+	89.3	8.9	1.8
Area type	Low p.d./Rural	90.7	8.8	0.5
	Low population density/Not rural	93.0	4.9	2.0
	Medium population density	95.6	3.1	1.2
	High population density	92.2	4.2	3.6
Area deprivation	Quintile 1	91.2	8.0	0.8
	Quintiles 2-3	94.5	4.2	1.3
	Quintiles 4-5 (Most deprived)	92.8	3.8	3.5
Has always lived in locality	No	92.1	5.8	2.1
	Yes	95.4	2.6	2.0
Currently full-time student	Yes	98.2	1.2	0.6
	No	92.9	5.0	2.2
Qualifications	None	95.1	3.4	1.6
	Some	92.9	5.0	2.2
Internet access	No	97.9	0.5	1.6
	Yes	92.9	5.0	2.1
Same-sex partnership	Same-sex	87.1	10.0	2.9
	Opposite-sex	93.3	4.6	2.1
BMI: Women	BMI <= 25	95.8	2.8	1.4
	25 < BMI <= 35	91.5	6.2	2.2
	BMI > 35	88.2	7.1	4.7
Height: Women	>= 170cm	91.5	5.8	2.8
	< 170cm	94.7	3.7	1.5
Gender	Men	92.5	5.3	2.3
	Women	93.9	4.2	1.9
Limiting disability (or illness)	Yes	87.5	8.4	4.2
	No	93.9	4.3	1.8
Alcohol weekly	None	92.5	4.8	2.7
	Not more than recommended	93.1	5.0	1.9
	More than recommended	95.8	2.8	1.4
First sex at age 18+	Yes	91.1	6.8	2.1
	No	94.3	3.6	2.1

TABLE S4: (continued)				
3+ partnerships	Yes	88.6	8.2	3.2
	No	93.8	4.2	1.9
Ethnic homogamy/ heterogamy	Homogamy (Asian)	98.2	0.5	1.4
	Heterogamy (White/Other)	89.2	6.9	3.9
	All other combinations	93.1	4.9	2.0
Age difference	0-5 years	92.6	5.1	2.3
	6-14 years	94.1	4.0	1.9
	15+ years	96.9	3.1	0.0