A needless epistemological obstacle?

Geometric and 'linear' statistical techniques in relational phenomenology

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Abstract:

Pierre Bourdieu was, like many, critical of the use of linear statistical techniques such as regression in sociology to the point of outright dismissal. Grounded in a certain epistemology and conception of the social world as comprised of fields, including the arch-field that is the 'social space', he championed geometric techniques like multiple correspondence analysis instead. This paper makes the case that Bourdieu overexaggerated his point, not only from a purely statistical point of view but from an epistemological and sociological one too. Returning to an analysis conducted elsewhere and approaching it from a different angle, it uses classed tastes for television broadcasters in the UK to illustrate the argument.

> *Those who proceed as if all objects were amenable to a single technique, or indifferently to all techniques, forget that the various techniques may, to varying extents and with varying effectiveness, contribute to knowledge of the object, so long as their use is controlled by methodological reflection on the conditions and limits of their validity, which depends in each case on their adequacy to the object, i.e. to the theory of the object.*
>
> Bourdieu et al (1991: 48)

Introduction

Linear statistical techniques like regression analysis, despite being the bread and butter of many quantitively-inclined social scientists, are regularly lambasted for their failure to adequately fit the reality of the social world (Abbott, 1988; Sayer, 2000). Pierre Bourdieu led the attack early on, making the case that regression techniques presuppose a faulty philosophy of social causation. Envisioning the world in terms of 'fields', or multidimensional structures of relations between positions *vis-à-vis* specific principles of misrecognition, or capital, he argued that what have now come to be called 'geometric' techniques, including most famously multiple correspondence analysis (MCA), should be mobilised instead. Only these, he claimed, can tap into the network of interacting factors underpinning practice without falsely separating them; a claim he sought to demonstrate most forcefully in *Distinction*, his celebrated anatomisation of the homology between the field of class relations, or 'social space', and lifestyles (Bourdieu, 1984).

Yet Bourdieu, I want to argue, may have overstated his case and, indeed, contravened his own advice on the controlled use of the array of techniques at sociology's disposal, in the process seemingly erecting an epistemological obstacle – a barrier to the progress of knowledge, that is – of the kind he was usually so keen on demolishing. Is it not possible that, even from a standpoint highly sympathetic with the model of social reality forward by Bourdieu – which has elsewhere been dubbed 'relational phenomenology' (Atkinson, 2016a) – geometric and regression techniques might be *complementary* so long as they are handled with epistemological vigilance, that is, awareness of their different capacities *vis-á-vis* the relational conception of the social world? I will suggest it is, illustrating that conclusion by returning to an analysis conducted elsewhere into the correspondence between the social space and the space of favoured television broadcasters in the UK and untangling the factors at work. For that reason, it is necessary to begin with an explication of Bourdieu's vision of social reality, specifically of the social space and how it relates to factors such as age and gender, and the allied logic for dispensing with regression techniques and depending on MCA. After outlining some of the subsequent debates that vision and logic have generated we can then progress to our object of analysis.

Social space, lifestyle space and intersections

Instead of 'systems', webs of interactive 'networks' or sets of 'rules and resources', the social world is, for Bourdieu, comprised of so many fields, that is to say, discrete structures of relations between positions defined by possession of properties (or 'capital') securing some relatively autonomous form of misrecognition. Usually consisting of at least two principles of opposition ('high versus low' capital and 'autonomous versus heteronomous' capital), they are amenable to topological, Euclidean modelling. Most national-level fields are contained within an arch-field of class relations, which Bourdieu (1984) called the social space. This is defined by three major dimensions: (i) volume of capital – economic (money, wealth), cultural capital (mastery of certain cultural codes, proxied by education level) and social capital (connections and memberships); (ii) composition of capital, i.e. whether one's stock is primarily economic in character (as for business leaders and managers) or cultural (as for teachers and artists); and (iii) trajectory, or transformation of capital stocks over time. The conditions of existence associated with different positions in this space generate habitus, or sets of dispositions and propensities, manifest not least in tastes for certain sorts of food, clothing, art, music, sports or television programmes.

This brings us to the next point: there is a lifestyle space, or 'symbolic space', in which all cultural goods and practices are distributed according to how prestigious or legitimate they are seen to be. By juxtaposing the model of the space of lifestyles with the model of the social space, we can see that the most legitimate practices correspond with a high volume of capital, but also that the different ways in which practices are considered worthy and estimable – as denoting intelligence or monetary success – corresponds with capital composition. This feeds into everyday perception and evaluation:

relative distances and directions in the spaces translate into a *sense* of relative distance and difference, and superiority and inferiority, mediated by perception of the symbols homologous with sections of the social space.

Trajectory also has its effect in inclining some sections of the social space, or class fractions, toward the old and traditional – if they are declining, trying to hold on to the past – or toward searching out the new and different – if they are newer and rising. This dimension of differentiation dovetails with the age structure of class fractions. Those fractions richer in economic capital and poorer in cultural capital – small employers, the self-employed, skilled workers and so on, all of which are declining in numbers and capital – tend, on average, to be older in years. Those richer in cultural capital, having passed through an expanded education system and filled the proliferating positions in the post-industrial labour market – teachers, youth workers, care workers and such like – tend, again on average, to be younger. This means that, in many ways, what are thought of as clashes between generations are, in fact, clashes between different sections of the class structure, but also that classes are inseparable from the modal age of their constituents.

Similarly with gender, Bourdieu (1984: 107) famously claimed that gender and class are as inseparable as the acidity and yellowness of a lemon. In other words, a class and its associated lifestyle are defined by its gender ratio just as much as the two sexes are defined by their typical positions across the social space. Some sections of the latter – both the women and the men there – are cast as more feminine and others as more masculine on that basis, wrapping the sense of social distance in a gendered hue. However, Bourdieu also pointed out that the degree of gender segregation in lifestyles within classes depended on positon in social space. Everything would seem to indicate, he argued, that the higher in social space and further positioned toward the cultural pole one goes, the more alike men's and women's tastes become – reading the same newspapers, liking the same music or plays, and so on. Though he gave it rather less attention for largely technical reasons (see Bennett et al, 2008), the same appeared to be true in principle of ethnicity: the perception and evaluation of classes is as inseparable from their ethnic composition as the standing of different ethnic groups is inseparable from their typical class positions.

Critics of Bourdieu – particularly feminists (see, e.g. Adkins and Skeggs, 2004) – chided the apparent class reductionism of Bourdieu's account of lifestyles. However, beyond *Distinction*, Bourdieu indicated that the relationship between capital and other factors was a little more complicated. This is especially so in relation to gender, which later work seemed to grant some relative autonomy as a construction of the world spanning, being shaped by and shaping multiple fields (Bourdieu, 2001; Atkinson, 2016a). The same might also be said to be true of age: while generational differences certainly do go hand-in-hand with capital composition, and experiences of 'youth' and being 'old' are both internally divided by capital volume, they are not reducible to class capitals but traverse fields and run between members of the same class (Bourdieu, 1993a). Ethnicity, meanwhile, may well form a relatively autonomous space or field of its own, meshing with the social space to *co-produce* the major principles of vision and division in a social order (Bourdieu, 1992; cf. Hage, 1998; Emirbayer and Desmond, 2015).

None of this means that class fractions are not ultimately defined by their gender ratio, their modal age or their ethnic composition, but it does mean there are gender, age, and ethnicity effects on lifestyles and perceptions of the world which might be analytically separable, on the grounds of relative autonomy, from possession of economic, cultural and social capital. The lifestyle space, therefore, is *determined by multiple forces*, and thus might also be said to have a degree of relative autonomy from the social space. It may only be modest, and its structure remain highly homologous such that the space still functions more or less as a system of symbols of capital possession, but it is

complicated or made 'fuzzy' in certain places, and not only, as Bourdieu (1984: 253; 1987) had it, because of strategies of self-presentation.

This point fits, to a degree, with the case made elsewhere for being more sensitive to *multiplicity* than Bourdieu was (Atkinson, 2016a). Others have pursued similar arguments (Lahire, 2004, 2011; Bennett et al, 2008), but then see fit to jettison the notions of social space, replacing it with unidimensional occupational measures of 'class', and/or habitus. There is no reason to get rid of either so long as one (a) has a rigorous model of the social space as defined by economic, cultural and social capital (rather than as a vague synonym for society), interacting with other fields to shape specific position-takings; and (b) recognises an individual has multiple habitus – in relation to those different fields – knitted together into what Bourdieu (2000) called a 'social surface', with its own internal contradictions and pressures.

A relational technique for a relational worldview

Distinction is packed with data tables, but the most notable pillar of the empirical foundation is two MCAs – one for the dominant class and one for the intermediate class – which then inform Bourdieu's well-known diagram of the homology between the social space and symbolic space. This was the first time that he had deployed the method (in a book at least), to the bafflement of his initial Anglophone readers, and he took the opportunity to elaborate on earlier remarks (Bourdieu et al, 1991: 46) and make his methodological case alongside his conceptual one (Bourdieu, 1984: 101-6). The bulk of his argument was given over to a critique of techniques presupposing the separability of 'so-called' (as he put it) independent variables from one another, whether they be occupation and education, or class position and gender, age, ethnicity and place. They cannot be readily distinguished: each is implicated in a network of relations of interdependence which *together* shape, for example, political attitudes or lifestyle practices. Occupations depend on cultural capital for access, yet cultural capital is constantly modified and accumulated through occupational effects, and, as we have seen, classes are inextricably defined by their gender balance, ethnic composition and age distribution such that taking any one measure in isolation masks the full set of forces underpinning it.

Better, then, to adopt a technique designed to map out the web of interrelations between variables, and MCA does precisely this. Developed by Jean-Paul Bénzecri in France, the basis of MCA is the 'cases x variables' table subject to 'disjunctive coding': an individual case is entered on the row, the categories for each variable (known as 'modalities') form the columns, and then a 1 is entered in the cell for each property characterising the case and a 0 for all others. MCA then transforms the resultant patterns across and between cases, and categories, into a space defined by multiple polarising axes, each said to 'explain' or 'account for' a certain proportion of the total variance in the data table.

MCA is often described as a descriptive rather than explicative technique, that is to say, a technique which maps out relations between variables without seeking to explain them, as interpretations of regression analysis sometimes claim to do (cf. Savage, 2009). This is not quite true, however (Bourdieu, 2005: 102). In MCA, the language of dependent and independent variables is simply swapped out for the language of active and supplementary variables. If active variables are all those contributing in some way to the determination of the axes, supplementary variables are those loaded into the model but set as 'passive'. They do not contribute to the construction of the axes, and instead we see the correspondence between their categories and the space in question. For example, we can build a model of the symbolic space using MCA of myriad variables tapping into lifestyles, and then project into that model various demographic variables, including indicators of position in social space, or vice versa. The analytical task is then to construct a causal model to account for that correspondence, just as Bourdieu (1984: 101, 171) did.

After *Distinction* Bourdieu consolidated his commitment to MCA on philosophical grounds. Statistical techniques, he claimed, carry with them implicit social philosophies, or models of causation, and MCA dovetails with the worldview underpinning his conceptualisation of fields because it is a properly relational technique, mapping out oppositions hidden beneath and organising all kinds of outcomes and their homologies (Bourdieu et al, 1991: 254; Bourdieu and Wacquant, 1992). Regression analysis, one assumes, carries with it a mechanical and substantialist conception of the social world. It certainly fails to illuminate the distances and directions defining fields and their spaces of position-takings, like the lifestyle space, both of which are crucial to grasping the social definition and genesis of practice. How exactly Bourdieu's commitment sits with the apparent relative autonomy of gender and ethnicity in later works, however, remains unclear.

Into the new millennium

Droves of scholars have since endeavoured to test whether Bourdieu's general argument on the relationship between the social space and lifestyle space, sometimes dubbed 'the homology thesis', applies to their own countries in more recent times. Some have opted to marshal the conventional techniques spurned by Bourdieu, including regression (e.g. Katz-Gerro and Shaivt, 1998). In a well-known programme of research Chan and Goldthorpe (2007) chose to deploy latent class analysis (LCA), attracting the disapproving response from Wuggening (2007) that any attempt to adjudicate the validity of Bourdieu's construction of the relationship between social position and cultural position-takings using 'mainstream' statistical techniques was doomed to failure. True enough, if one wants to find out if there really is a homology between class and lifestyles, a geometric technique that can map out the oppositions and correspondences in the data in the form of spatial distances and directions is ideal. LCA, despite usually being lumped together with MCA as a 'data reduction' technique, simply does not do this.[1]

Others, however, have followed Bourdieu's lead and harnessed MCA to their cause (e.g. Rosenlund, 2009; Prieur et al, 2008), mapping out both social spaces and spaces of lifestyle using appropriate variables and examining their correspondence via projection of passive modalities. In the UK there has been the effort of Bennett et al (2008), which did rely on MCA, and also my own research (Atkinson, 2017a, Atkinson and Rosenlund, 2014), which drew on the same data as Bennett et al but advanced on their contribution by not only mapping the space of lifestyles with MCA in a more stringent manner but also mapping the social space with the same method and deriving from it a proxy measure usable as a supplementary variable or in tabular analysis (figures 1 and 2).[2] The substance of the argument based on this labour was that there is indeed a discernible homology, approximate as it might be, between the two spaces.

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[1] This was also the major limitation of Savage et al's (2013) effort to map out the British class structure.
[2] The data in question derives from the Cultural Capital and Social Exclusion survey carried out in 2003. For details of the survey, see Bennett et al (2008).
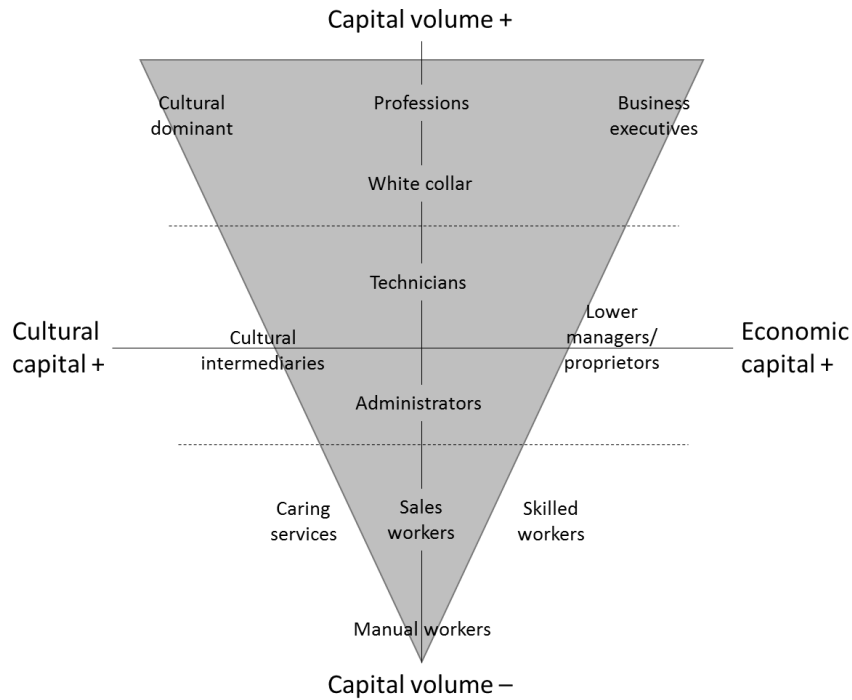
Figure 1 The British social space. The grey triangle indicates the approximate distribution of individuals, though with the caveat that the bottom end is 'heavier', in terms of numbers of people gathering there, than higher sections.
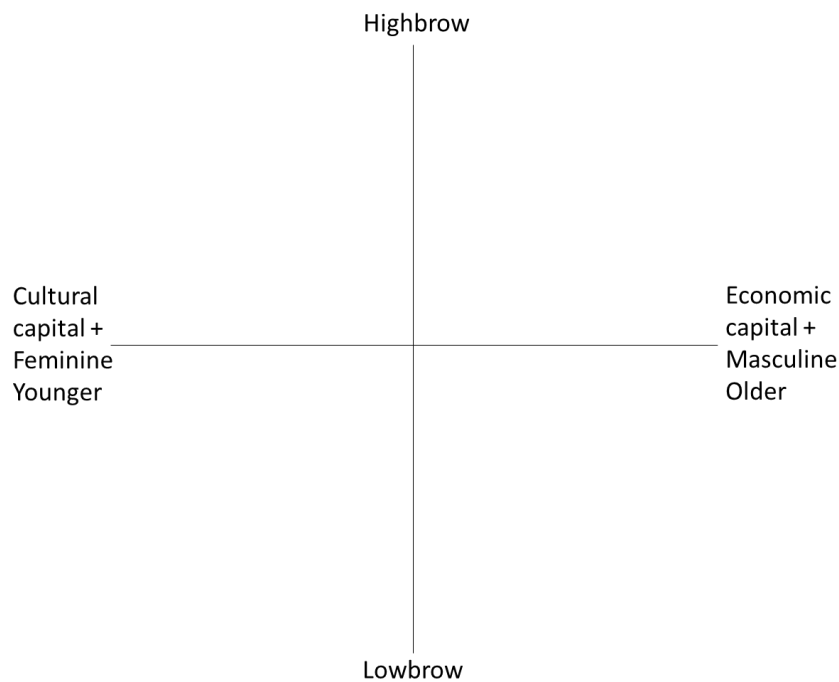
Figure 2 The structure of the British symbolic space

The lifestyle space was also, however, related to age and gender. Capital composition did indeed map into the second dimension of the space, but the 'cultural' pole was also associated with youth and women, and the 'economic' pole with being older and male. A third dimension, moreover, distinguished the younger economically rich from the older culturally rich. Given the importance of

trajectory effects and the gendered nature of the social space, all this made sense. Moreover, concurrent analysis of different data also established that gender may be more salient as a source of cultural differentiation compared to capital composition lower down the social space (Atkinson, 2016b, 2017b). This fits with the 'conical' shape of the British social space revealing that capital composition is a less pronounced source of structural differentiation in the lower regions (Atkinson and Rosenlund, 2014).

The argument ranged over familiar elements of the space of lifestyles – taste for visual arts, music, theatre, sports and so on – but also practices Bourdieu himself did not explore in any great depth, including body modification (tattoos, tanning, etc.) and television tastes. As part of the latter component, I made the case that watching public broadcasters – the BBC as well as the state-funded Channel 4 – seemed to follow cultural capital on the basis of a tabulation of the class fractions with television channels watched most often (Atkinson, 2017a: 57-8; summarised here in Figure 3). State-supported channels, it was argued, are more likely to provide programmes (news, documentaries, dramas, etc.) appealing specifically to those richer in cultural capital because, freed from market pressures, they have the distance from necessity to produce for what Bourdieu (1993b) would describe as a 'restricted', as opposed to mass, market. A paternalistic effort from agents of the state to impose a certain (classed) version of culture as *the* form of legitimate culture could also be part of the picture (cf. Bourdieu, 2014).[3]
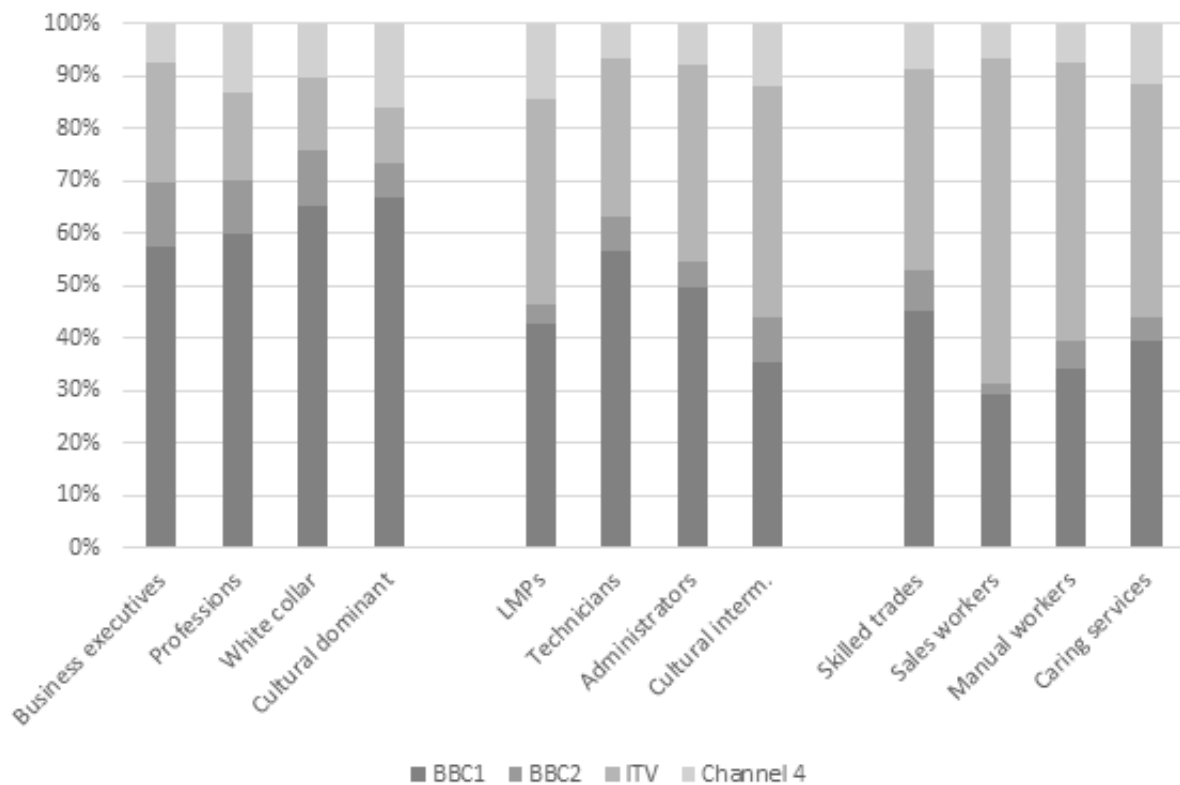
Figure 3 Favoured television broadcaster by class fraction

Digging deeper

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[3] The survey was undertaken before the boom in alternative online content providers such as Netflix or Amazon as well as the move online of traditional TV channels (BBC iPlayer, 4OD, etc.), and so the substantive argument, of all components of the original analysis, is perhaps the most dated. That does not detract from the methodological point being made, though.

Admittedly it seems more accurate to say, from a reading of the table, that taste for public broadcasters follows volume of capital, since watching commercial broadcasters like ITV or Channel 5 increases in the intermediate and dominated class and watching public channels decreases. This is confirmed by returning to the data and crossing broadcaster preferences with more direct measures of capital, such as educational qualification and household income (Table 1). Capital composition does, however, come into play within the dominant class, since the cultural dominant are more likely to watch BBC1 and Channel 4 and the business executives the leading terrestrial commercial channel, ITV. This demonstrates the usefulness of the class measure for getting at such differences, and also offers an advance on Bennett et al (2008: 136), who, on the basis of evidence not presented, claimed the public/private split to correspond with volume of capital alone. Even so, however, the patterns are not so clear-cut – the professionals are less likely to watch the BBC than the white-collar workers, for example, and the business executives watch BBC2 the most within their class – and the differences between class fractions lower down the social space appear to fit with the explanation less well. Skilled tradespeople and LMPs are fairly likely to watch public service television within their classes, for instance, despite being relatively low in cultural capital compared to caring services and cultural intermediaries respectively, who are less likely to watch them and more interested in ITV. They are high in economic capital, for sure, but it is not clear why that would trump cultural capital in the intermediate and dominated classes but less so the dominant class.

Table 1 Channel watched most often by education and annual household income (row %)

	BBC1	BBC2	ITV	Channel 4	Channel 5	Other answer	Total*
Education							
No qualifications	34	4	47	3	7	5	100
GCSEs	38	3	43	7	4	5	100
Post-16 vocational	41	5	33	11	5	6	101
A levels	41	8	31	13	2	5	100
Degree	51	9	20	14	1	5	100
Household income (£ p/a)							
0-9999	32	4	47	5	8	4	100
10k-19999	36	5	43	8	4	4	100
20k-29999	44	8	34	7	2	6	101
30k-39999	47	5	34	8	5	1	100
40k-59999	40	8	32	12	2	6	100
60k or more	48	4	21	17	1	9	100

Source: CCSE 2003
* row totals may not add up to 100 due to rounding.

We can project the favoured channels into the overall model of the lifestyle space generated by the original MCA to see if we can make sense of this (Figure 4). However, while that confirms the association of public service television with volume of capital, and Channel 4 with the culturally rich/younger/female pole, we are left guessing as to what the principles of difference within the intermediate and dominated classes are. There is more going on here, and it needs to be unpacked.
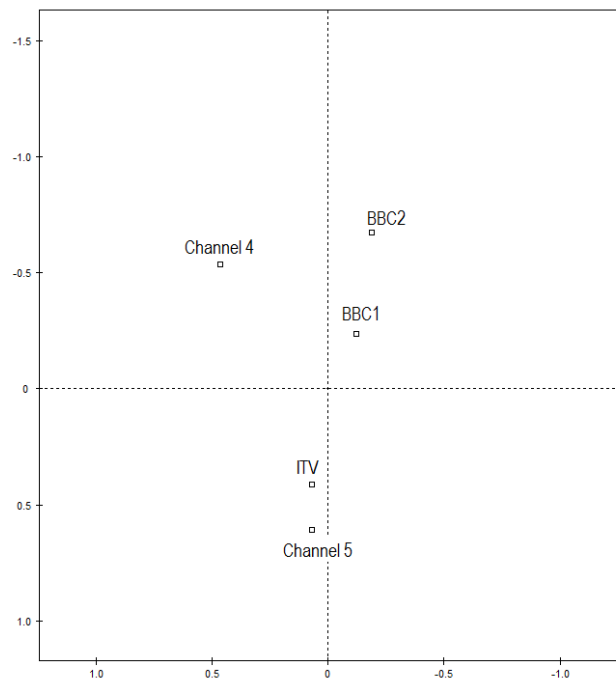
Figure 4 The distribution of broadcasters in the symbolic space

The immediate suspicion, given that capital composition is highly homologous with gender and age in the symbolic space, is that capital possession is being cross-cut. If we cross broadcaster preferences with educational qualification and gender, for example, we can see that, notwithstanding those with lower secondary education (GCSEs) and the parity among those with higher secondary education (A levels), men are more likely to watch public service broadcasting than women (who are more likely than men to opt for ITV/Channel 5 at all educational levels), even as the rate for both sexes increases with cultural capital possession (Table 2). Similarly, we can see that older audiences tend to opt for the BBC at a greater rate than younger viewers whatever their education level, though Channel 4 appeals to younger audiences (Table 3).

Table 2 Channel watched most often by gender and education (row %)

	BBC		Channel 4		ITV/C5	
Education	Male	Female	Male	Female	Male	Female
No qualifications	47.3	30.9	3.4	1.8	44.4	62.7
GCSEs	37.2	41.8	10.0	5.6	42.9	50.0
Post-16 vocational	54.9	35.1	9.9	10.4	28.6	49.4
A levels	47.2	47.5	14.6	13.3	33.7	34.2
Degree	66.3	55.3	14.2	13.2	16.0	25.4

Source: CCSE 2003

Table 3 Channel watched most often by age and education (row %)

	BBC		C4		ITV/C5	
Age	GCSEs	Degree	GCSEs	Degree	GCSEs	Degree
18-25	21.2	32.4	11.5	27.0	63.5	29.7
26-35	36.6	54.6	7.8	14.4	50.0	23.7
36-45	29.5	53.4	10.5	14.0	54.8	30.3
46-55	50.0	71.4	4.0	10.0	38.0	12.8
56-65	56.3	75.0	3.6	6.8	32.7	15.9
66+	63.6	78.1	3.0	12.5	30.3	6.3

Source: CCSE 2003

In both cases we might conjecture that this comes down to the broadcasters offering types of programming appealing to differing degrees to the more 'inwardly' oriented tastes of women and 'outward' oriented tastes of men (Bennett et al, 2008; Atkinson, 2016b), and to youth audiences and older audiences. Certainly, if we examine programme taste by age and gender, we can see that women display a clear preference for soaps and dramas across all ages, though least among the young, who prefer comedies and sitcoms (Table 4). Men, on the other hand, have a taste for sport and documentaries, with sport being particularly popular among the young (who also like sitcoms and films) and documentaries among older people. A proclivity for news and current affairs increases with

age for both men and women, though at a greater rate for men. When we compare this against the relationship between favoured programme type and broadcaster, we can see that news programmes, comedies, documentaries, arts programmes, dramas and cookery shows – the favoured fare of older men, older women wanting news programmes and culinary tips and younger women watching drama – are associated with public broadcasters. The proportion of those citing these as their preferred types of programme opting for public broadcasters most often are 72 percent, 64 percent, 77 percent, 100 percent, 62 percent and 65 percent respectively. Commercial television, on the other hand, is more closely associated with tastes for police shows (60 percent), reality programmes (56 percent) and soap operas (66 percent), all of which attract younger female audiences, as well as variety shows and quizzes. We do not know for sure, of course, if viewers are choosing their broadcasters on the basis of programmes offered (watching what they desire), or choosing their programmes on the basis of the broadcaster offering them (their reputation, a dislike for adverts, etc.), or a mix of both.

Table 4 Favourite type of TV programme by age and gender (column %)

	Male						Female					
	18-25	26-35	36-45	46-55	56-65	66+	18-25	26-35	36-45	46-55	56-65	66+
Never watch TV	0.0	0.8	0.7	1.8	1.7	1.5	0.0	1.9	0.6	0.7	0.0	0.7
News/ Current affairs	3.7	13.6	16.3	18.8	24.8	31.1	1.1	9.9	10.2	15.7	22.8	16.3
Comedy/ Sitcoms	18.5	20.5	11.3	10.7	6.0	6.8	34.0	10.6	8.0	4.6	2.4	4.1
Police/ detective	1.2	2.3	5.0	7.1	0.9	7.6	6.4	8.7	9.7	4.6	8.9	10.2
Quizzes/ game shows	0.0	0.0	0.7	2.7	0.9	3.0	2.1	0.0	1.7	5.9	4.9	12.9
Nature / History documentaries	8.6	11.4	14.2	21.4	21.4	16.7	2.1	6.2	6.3	8.5	13.0	6.8
Sport	35.8	26.5	32.6	20.5	26.5	17.4	1.1	1.9	2.3	1.3	0.8	1.4
Arts programmes	1.2	0.8	0.7	1.8	1.7	0.8	0.0	0.0	0.0	0.0	0.0	1.4
Films	27.2	9.1	7.1	8.0	5.1	6.1	17.0	9.9	6.8	10.5	5.7	2.7
Variety / chat shows	0.0	0.0	0.7	0.0	0.9	0.0	2.1	0.6	1.7	1.3	2.4	0.7
Drama	0.0	3.8	5.0	3.6	2.6	3.8	6.4	11.2	15.9	14.4	9.8	14.3
Reality TV	1.2	3.8	0.7	0.0	0.0	0.8	6.4	0.6	0.6	1.3	1.6	0.7

Soap operas	2.5	2.3	2.8	0.9	2.6	3.0	19.1	32.3	25.0	24.8	20.3	23.8
Cookery/ Home decorations/ Gardening	0.0	4.5	1.4	1.8	5.1	1.5	1.1	6.2	10.2	3.9	7.3	2.7
Other	0.0	0.0	0.7	0.0	0.0	0.0	1.1	0.0	1.1	0.7	0.0	0.0
None of these	0.0	0.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.4
*Total**	99.9	100.2	99.9	100.0	100.2	100.1	100.0	100.0	100.1	100.2	99.9	100.1

Source: CCSE 2003. Rows with particularly noteworthy patterns have been shaded.
* Totals may not add up to 100 due to rounding.

These patterns help us make sense of the original table once we realise that the gender ratio and age structure of the different class fractions vary considerably (Table 5). The LMPs and the skilled workers – who, against the cultural-capital-only interpretation, watch publicly funded broadcasters at a greater rate than cultural intermediaries and caring services – are disproportionately male and older, and the cultural intermediaries and caring services female and younger. The relative male-dominance of the white-collar workers might also make a difference to that class fraction. Now we also see, however, that the cultural dominant, despite being female-dominated, and relatively young compared to other class fractions, are reversing the trend. Projection of programme tastes into the MCA model suggests this might be in part because of their taste for drama, as well as art programmes, both more closely associated with public broadcasting (Figure 5). Indeed, we can see the correspondence between feminine (and younger) tastes on the left and masculine (and older) tastes on the right, in line with the general structure of the symbolic space, now clearly divided vertically by capital volume into different 'brows': drama programmes as more highbrow (or at least high*er* brow) on the left, news and documentaries on the right; comedies as more middle brow on the left; and soaps and reality TV as more lowbrow on the left and game shows on the right. The relative youth of the cultural dominant may also be what inclines them toward Channel 4.

Table 5 Gender and age structure of class fractions (row %)

	Gender		Age					
	Male	Female	18-25	26-35	36-45	46-55	56-65	66+
Business execs.	76.4	23.6	1.4	25.0	26.4	22.2	18.1	6.9
Professions	68.6	31.4	5.7	11.4	20.0	34.3	20.0	8.6
White collar	67.5	32.5	8.9	34.2	27.8	8.9	11.4	8.9
Cultural dominant	30.4	69.6	5.2	24.3	18.3	20.0	17.4	14.8
LMPS	60.0	40.0	0.0	11.7	26.7	21.7	15.0	25.0
Technicians	74.5	25.5	3.9	23.5	15.7	29.4	13.7	13.7
Administrators	19.1	80.9	7.2	15.3	17.2	19.1	17.2	23.9
Cultural interm.	13.7	86.3	1.4	25.0	27.8	12.5	19.4	13.9
Skilled trades	86.8	13.2	10.1	14.2	24.9	12.4	11.8	26.6

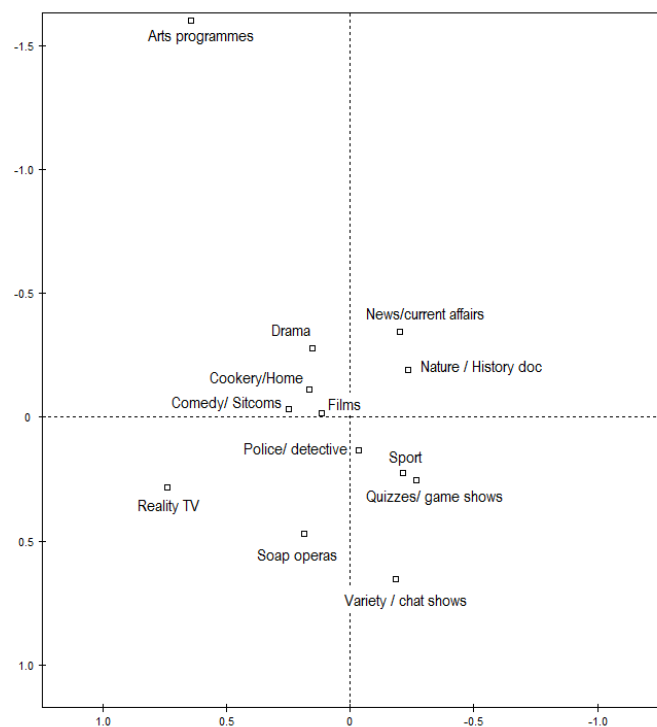|							
Manual workers	56.5	43.5	11.8	14.3	17.6	16.8	17.6	21.8
Sales workers	27.6	72.4	29.7	15.2	14.5	17.2	11.7	11.7
Caring services	13.8	86.2	14.5	23.7	24.3	13.8	13.2	10.5

Figure 5: Favourite TV programmes in the model of the space of lifestyles

Are broadcaster tastes essentially reducible to gender and/or age, then, albeit modulated by volume of capital? The intuitive response is no, and not only because the extreme position of (older and more masculine) arts programmes is telling, and because tastes for news and documentaries on the right-hand side also appear to incline the economically rich toward public service broadcasting. Only over-reliance on television genre categories pushes us to that conclusion, since they obscure within-genre differences in programming on the basis of symbolic mastery required and, therefore, taste for public broadcasting on the basis of its production for a more restricted market (cf. Atkinson, 2011). There are other questions too: does taste for public broadcasters rise with economic capital only because the latter hides a relationship with cultural capital (or vice versa)? And what about ethnicity? Might that have an effect too? We could perhaps run a dozen cross-tables trying to capture the full intersection of all the effective components, or one giant one, but there are more efficient means to the same end.

A transgression

We can, I believe, untangle the web of interrelated factors shaping broadcaster taste by committing a cardinal sin: running a logistic regression analysis. How is this justifiable given Bourdieu's logic that class and its effects are defined by an intricate mesh of properties, or a 'system of variables', that cannot be isolated from one another? Can such a thing be done while committed to the relational philosophy of action developed by Bourdieu? First of all, it should be made clear that, in purely mathematical terms, geometric techniques and regression techniques happily co-exist and, indeed, have points of overlap and mutual interplay (see e.g. Le Roux and Rouanet, 2004: 266-8; Bry et al,

2016). Moreover, a number of thoroughly Bourdieusian researchers, well-versed in conducting MCA, have turned to regression techniques for specific tasks, as when Laurison and Freidman (2016) unpacked the impact of class origin of earnings within the dominant class and Flemmen et al (2017) examined the effects of class origin and gender on social mobility (see also Schmidt and Lebaron, 2017). Yet there has been little reflection on the epistemological steps necessary for this move – how with sufficient conceptual awareness and reasoning, that is, the process and results of a regression analysis can be read and 'translated' into the logic of the relational model of reality.

I would like to tentatively propose what might be called a 'decomposition-recomposition' approach: we consider the system of variables deemed to approximate the constitutive elements of class, select certain measures on the basis of distinguishing power and availability, and enter them into a regression model which then 'decomposes' them to adjudicate their effects net of one another on a specific phenomenon. It is the task of the epistemologically vigilant analyst, mindful of their interdependencies (mapped with MCA), to then 'recompose' them, that is, to logically place each effect back into the system of interrelations defining class to make sense of them. If being a man or older has a significant effect, for instance, that holds across classes but also has specific consequences for grasping the total condition, dispositions and perception of classes (and their anomalous members) given the gender ratio and age structure of each.

In our example, the outcome or 'dependent' variable is watching public service broadcasting, though we also run the analysis on another dependent variable focussing only on the BBC, since there is a good chance that inclusion of Channel 4 in the wider public-service outcome variable will weaken effects of age. The system of explicative variables being decomposed includes efficient measures of cultural capital (highest educational qualification), economic capital (annual household income),[4] trajectory and inherited capital (occupation of primary earner in the household when the respondent was in their mid-teens), but also household composition (whether single-person or not, and whether there are children in the household or not), gender, age and ethnicity. The last of these is recorded as a simple binary (white-British or not) in the main dataset due to low numbers. The team behind the original survey did also gather an additional 'ethnic boost' subsample allowing for greater disaggregation, but unfortunately there is too much missing data across the income and educational variables for it to be robustly incorporated in to the analysis. Note, finally, that we do *not* put the class schema variable into the equation, since that would be a *totum pro parte* fallacy and produce a major mulitcollinearity problem.

Table 6 Logistic regression of broadcaster watched most often

	Public		BBC	
	B	S.E.	B	S.E.
Male	0.527	0.133**	0.533	0.139**
Non-white British	0.141	0.246	0.279	0.257
Single-person household	-0.235	0.184	-0.272	0.193
Child in the household	-0.201	0.166	-0.039	0.176
Age (base: 18-25)				
26-35	0.264	0.257	0.553	0.286
36-45	0.114	0.255	0.407	0.281
46-55	0.453	0.27	0.904	0.297**
56-65	0.942	0.286**	1.47	0.313**
66+	1.07	0.299**	1.636	0.327**
Household income p/a (base: 0-9999)				

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[4] This is a composite measure including both single-person and multi-person households.

10k-19999	0.04	0.224	0.014	0.235
20k-29999	0.493	0.239*	0.553	0.250*
30k-39999	0.35	0.259	0.386	0.271
40k-59999	0.257	0.266	0.310	0.278
60k+	0.652	0.280*	0.611	0.294*
Highest qualification (base: no qualifications)				
GCSEs	0.763	0.195**	0.700	0.202**
Post-16 vocational	0.885	0.233**	0.750	0.243**
A levels	1.467	0.244**	1.414	0.252**
Degree	1.741	0.223**	1.688	0.230**
Primary earner's occupation (base: routine worker)				
Professional/Managerial	0.456	0.187*	0.453	0.194*
Intermediate	-0.059	0.148	-0.100	0.155
Constant	-1.486	0.328**	-2.054	0.363**
R^2	0.182		0.188	
Hosmer-Lemeshow	0.441		0.249	
n	1188		1084	

* p<0.05, **p<0.01

So what do we see (Table 6)? First, that watching public service broadcasting is related to gender and age: men are more likely to tune in to it, and the chances of opting for it increase steadily with advancing years, though only in a statistically significant manner for those aged 56 and over. Next, we see that household income has a modest effect, with an effect in the middle but making most difference at the very top, and that social origin, or inherited capital, also makes a difference. Undoubtedly, however, the property with the strongest and most significant effect is educational qualification, as an indicator of symbolic mastery. There is a clear progressive increase in likelihood of watching public service broadcasting, net of any other effect, with each step up the scholastic hierarchy. Household composition and ethnicity, finally, have no significant effect.[5]

Now let us recompose these findings.[6] To start with, cultural capital is obviously the most important force, probably accounting for much of the difference between classes and class fractions that was attributed, on first look, to capital volume, though the importance of economic capital at the top end perhaps harmonises with the taste for news and current affairs as means of keeping track of the machinations of the economic field (and the political field intervening in it), where many of the economically richest class fractions (business executives and professions, but also LMPs and self-employed skilled tradespeople) disproportionately tend to derive their source of misrecognition. Being a man and being older do make a difference, however, meaning that those class fractions which are disproportionately male and older in composition (dovetailing with a declining trajectory) are

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[5] The R-squared statistics are fairly low for the models, meaning that they account for only modest amounts of variation in scales scores. This is a common enough phenomenon in sociological applications of regression analysis, as Goldthorpe (2016: 93-4) notes, due to the sheer variability of individuals constituting the regularities in focus. This variability is, however, understood via methodological *relationalism* rather than Goldthorpe's methodological individualism to stem from (a) individuals' unique profiles of capitals situating them within the social space and (b) the idiosyncratic conjunction of different field forces in their lifeworlds.

[6] Recomposition could be supplemented by untangling interaction effects in the regression model, though there is not space to do that here.

drawn to public service broadcasting – particularly the BBC – at a greater rate than others. This applies especially to the LMPs and skilled tradespeople, though for some economic capital will also play its part for the reasons just mentioned. There are several entwined factors pushing these fractions toward the BBC, therefore, and trumping the fact that they have relatively little cultural capital. The effects and definition of both age and gender will be embedded within the broader class condition of the fractions, though, shaping their expression and the social definition of their expressions as either 'outdated' and 'pretentious' or 'mature' and 'serious'. The reverse of all this, of course, holds for class fractions with a rising trajectory, characterised by young women, such as the caring services and cultural intermediaries, who are drawn to commercial programming *despite* their relative cultural capital.

Given the force of education and its impact relative to femininity, everything would seem to indicate that the cultural dominant disproportionately favour public broadcasting largely due to their plentiful cultural capital, or more accurately the symbolic mastery its embodied form takes and its institutionalised form signifies. The original argument that public service broadcasting provides programming more likely to appeal to this mastery due to its distance from market pressures still fits, then. Bourdieu's argument that women's tastes converge with men's the higher up and richer in cultural capital one gets in social space also seems to have been corroborated, though with the added emphasis that, since the economic right-hand pole of the dominant class is more obviously masculine, the cultural pole, and the women *and men* closer toward it, are defined by opposition as more feminine and effeminate. The flip side of that argument is that gender, and perhaps age, become more salient sources of cultural difference and struggle compared to capital composition lower down in social space, where horizontal differentiation is much less than in the sections above (cf. Atkinson, 2016b, 2017a, 2017b; Atkinson and Rosenlund, 2014).

Then there is ethnicity. Its non-effect here signals only that there is no appreciable difference between the white British population and its others, but that is no doubt due to the over-homogenisation of the latter in the analysis. There may also be a time-lag too, since the survey was conducted in 2003. Given the vast proliferation of digital television channels in the last decade or so catering specifically to linguistic, national or religious groups, the vast majority of them being commercial, it seems highly probable that, were we able to disaggregate the non-white and non-British categories satisfactorily in a contemporary survey, there would be clear and consistent homologies which may well add up to an overall inclination toward commercial television, or at least non-BBC programming. That may be offset by other factors – it may reduce with cultural capital, for example, as mastery of the national language, specific programming tastes and political proclivities pull one to the BBC, or with age. Still, ethno-racial domination is a relatively autonomous field unto itself, and so we cannot reduce the effect of ethnicity down to class condition alone: distinct effects born of the struggle to embody ethno-racial worth will encounter the market of programmes offered by broadcasters – programmes appealing to different degrees to 'people like us' on ethnic as well as class grounds – to push them toward or away from the BBC and Channel 4. It is a case of *two* spaces of positions entwining to shape the one space of position-takings, as Bourdieu (1992) postulated, though the capital defining class still remain the major force.

Discussion

To summarise, I have taken a single table, swept over all-too-briefly in its initial presentation, and tried to unravel the complex of forces at play in the pattern it displayed. The original argument that cultural capital is crucial has been reinforced, but complicated somewhat and, ultimately, brought closer into line with what has been discovered elsewhere, namely, that horizontal class differentiation is highly homologous with gender, and age too, but that gender becomes a more salient driver of tastes vis-à-vis capital composition lower down the social space where capital composition is less structurally divisive. The class scheme, while the most efficient means of tapping into the total condition,

perception and practice attached to sections of the social space, needs to be used judiciously, then, and unpacked if further drilling into the homology and genesis of particular practices is desired.

As part of the re-analysis a logistic regression was run. This has not been without some methodological soul-searching. After all, Gaston Bachelard, the father of applied rationalism, argued that even the most arcane research technique is indissociable from theory formation – specific methods, as 'phenomeno-techniques', enable, constrain and dovetail with specific conceptual constructions of the world – and Bourdieu seems to have followed him in this. The history of the sociology of class would appear to be a case in point: the fashion for seeing society as scales in the US was linked to dependence on simple linear regression in the mid-20th Century, while the development of specific class schemas progressed in tandem with the arrival into social science of multivariate regression analysis (Goldthorpe, cited in Lareau, 2000: 12), and now Bourdieu's model of the social space and fields has gone hand-in-hand with MCA.

But maybe the dividing lines between techniques have been drawn to firmly, imposing an intellectually-limiting dualism, or epistemological obstacle, rather than breaking through it. For sure, if we want to map out spaces of positions and position-takings in order to tap into relational structures and their effects for practice and perception, then MCA and related geometric methods are the go-to. Yet, in the spirit of Bourdieu's 'methodological polytheism' (Bourdieu and Wacquant, 1992), there may be some research questions, some objects, for which logistic regression or similar techniques might have their uses. Bourdieu himself stated that the choice of technique should depend on the problem at hand and the 'particular construction of the object' it entails (Bourdieu et al, 1991: 254), but it may well be the pertinent analytical object is not the structures of a single field but specific features *within* a field or *crossing* fields. Thus regression techniques may, for example, help us tap into what Bourdieu called 'lusiones', i.e. the probabilities attached to different positions in a field, as well as untangle a web of interrelated factors, including relatively autonomous ones, structuring people's lifeworlds and co-producing some specific outcome like favoured television broadcaster, political inclination or a specific educational decision (Laurison and Freidman, 2016; Flemmen et al, 2017).

Still, while logistic regression may be a *relative* technique – distinguishing the relative odds of some experience or practice attached to different positions – it is not, on its own, a *relational* technique. Hence, as Bourdieu suggested in the passage opening this paper, if such a method is to be used it must be done so with extreme epistemological vigilance. The decomposition-recomposition strategy suggested here intends to embody that spirit, and assumes, of course, that regression is still, ultimately, *subordinate to multiple correspondence analysis*. The latter is the background and pre-condition for logistic regression: both the outcome and so-called 'independent' variables are embedded in systems of relations, some relatively autonomous from others, and it is the sociologist's task to render those systems using the most suitable methods so that the impact of each variable can be appropriately woven back into the topological construction of the world from which it was analytically extracted.

References

Abbott, A. (1988) 'Transcending General Linear Causality' *Sociological Theory*, 6(2): 169-86.

Adkins, L. and Skeggs, B. (Eds.) (2004) *Feminism After Bourdieu*. Oxford: Blackwell.

Atkinson, W. (2011) 'The Context and Genesis of Musical Tastes: Omnivorousness Debunked, Bourdieu Buttressed' *Poetics*, 39 (3): 169-186.

Atkinson, W. (2016a) *Beyond Bourdieu*. Cambridge: Polity.

Atkinson, W. (2016b) 'The Structure of Literary Taste: Class, Gender and Reading in the UK' *Cultural Sociology*, 10(2): 247-66.

Atkinson, W. (2017a) *Class in the New Millennium*. London: Routledge.

Atkinson, W. (2017b) 'The Social Space, the Symbolic Space and Masculine Domination' *European Societies*

Atkinson, W. and Rosenlund, L. (2014) *Mapping the British Social Space: Toward a Bourdieusian Class Scheme*. SPAIS working paper no. 02-14, University of Bristol, available at http://www.bristol.ac.uk/spais/research/workingpapers/

Bennett, T., Savage, M., Silva, E., Warde, A., Gayo-Cal, M. and Wright, D. (2008) *Culture, Class, Distinction*. London: Routledge.

Bourdieu, P. (1984) *Distinction*. London: Routledge.

Bourdieu, P. (1992) *Language and Symbolic Power*. Cambridge: Polity.

Bourdieu, P. (1993a) *Sociology in Question*. London: Sage.

Bourdieu, P. (1993b) *The Field of Cultural Production*. Cambridge: Polity.

Bourdieu, P. (2000) 'The Biographical Illusion' in P. du Gay, J. Evans and P. Redman (Eds.) *Identity: A Reader*. London: Sage, pp. 297-303.

Bourdieu, P. (2001) *Masculine Domination*. Cambridge: Polity.

Bourdieu, P. (2005) *The Social Structures of the Economy*. Cambridge: Polity.

Bourdieu, P. (2014) *On the State*. Cambridge: Polity.

Bourdieu, P. and Wacquant, L. (1992) *An Invitation to Reflexive Sociology*. Cambridge: Polity Press.

Bourdieu, P., Chamboredon, J.-C. and Passeron, J.-C. (1991) *The Craft of Sociology*. New York: Aldine de Gruyter.

Bry, X., Robetts, N. and Roueff, O. (2016) 'A Dialogue of the Deaf in the Statistical Theatre?' *Quality and Quantity*, 50(3): 1009-20.

Chan, T. W. and Goldthorpe, J. (2007) 'Social Stratification and Cultural Consumption: The Visual Arts in England' *Poetics*, 35(2-3): 168-90.

Emirbeyer, M. and Desmond, M. (2015) *The Racial Order*. Chicago: University of Chicago Press.

Flemmen, M. Toft, M., Andersen, P., Hansen, M. and Ljunggren, J. (2017) 'Forms of Capital and Modes of Closure in Upper Class Reproduction' *Sociology*, 51(6): 1277-98.

Goldthorpe, J. H. (2016) *Sociology as a Population Science*. Cambridge; University of Cambridge Press.

Hage, G. (1998) *White Nation*. London: Routledge.

Katz-Gerro, T. and Shavit, Y. (1998) 'The Stratification of Leisure and taste' *European Sociological Review*, 14(4): 369-86.

Lahire, B. (2004) *La Culture des Individus*. Paris: La Découverte.

Lahire, B. (2011) *Monde Pluriel*. Paris: Seuil.

Lareau, A. (2000) 'Introduction: Taking Stock of Class' in A. Lareau and D. Conley (Eds.) *Social Class: How Does it Work?* New York: Russell Sage Foundation, pp. 3-24.

Laurison, D. and Freidman, S. (2016) 'The Class Pay Gap in Higher Professional and Managerial Occupations' *American Sociological Review*, 81(4): 668-95.

Le Roux, B. and Rouanet, H. (2004) *Geometric Data Analysis*. Dordrecht: Kluwer.

Prieur, A., Rosenlund, L. and Skjott-Larson, J. (2008) 'Cultural Capital Today: A Case Study from Denmark' *Poetics*, 36: 45-71.

Rosenlund, L. (2009) *Exploring the City with Bourdieu*. Saarbrucken: VDM Verlag.

Savage, M. (2009) 'Contemporary Sociology and the Challenge of Descriptive Assemblage' *European Journal of Social Theory*, 12(1): 155-74.

Savage, M. et al (2013) 'A New Model of Social Class?' *Sociology*, 47(2): 219-50.

Sayer, A. (2000) *Method in Social Science.* London: Routledge.

Schmidt, A. and Lebaron, F. (2017) 'An Interview with Frederic Lebaron on the Genesis and Principles of Bourdieusian Sociology' *Theory, Culture and Society*,

Wuggenig, U. (2007) 'Comments on Chan and Goldthorpe' *Poetics*, 35(2-3): 306-16.