

Age, gender and television in the United Kingdom

Nick Redfern

Department of Media, Film & Culture, Leeds Trinity University,
Brownberrie Lane, Horsforth, Leeds LS18 5HD, UK.

n.redfern {at} leedstrinity.ac.uk

<https://leedstrinity.academia.edu/NickRedfern>

Abstract

I apply correspondence analysis (CA) to data produced for the British Film Institute's (BFI) 'Opening our eyes' report published in 2011 to discover how age and gender shape the experience of television for audiences in the United Kingdom. Age is an important factor in shaping how audience perceive television, with older viewers describing the medium as 'informative', 'thought provoking', 'artistic', 'good for people's self-development' and 'escapist', while younger viewers are more likely to describe television as 'exciting', 'fashionable, and 'sociable'. Younger respondents are also more likely to describe the effect of television on people/society as negative. Variation in programme choice is highly structured in terms of age and gender, though the extent to which of these factors determine audience choice varies greatly. Gender is the dominant factor in explaining preferences for some programme types with age a secondary factor in several cases, while age is the explanatory factor for other genres for which gender seemingly has little influence. Male audiences prefer sports, factual entertainment, and culture programmes and female audiences reality TV/talent shows, game/quiz/panel shows, chat shows and soap operas. Older audiences prefer news, documentaries, and wildlife/nature programmes, while music shows/concerts and comedy/sitcoms are more popular with younger viewers.

Keywords: correspondence analysis, television audiences, programme choice, genre, gender, age

This is a post-print of an article published as:

Age, gender, and television in the United Kingdom, *Journal of Popular Television* 3 (1): 57-73. DOI: 10.1386/jptv.3.1.57_1.

To cite this article please refer to the published version.

A large body of research, ranging from small-scale ethnographic studies to large-scale audience surveys, has found characteristics such as age, gender, class and occupation, educational attainment, and ethnicity shape viewers' experience and uses of television. These factors influence viewing habits in terms of levels of consumption (Gauntlett and Hill 1999), how viewers consume television in the home (Morley 1986; Steele and Brown 1995), and their relationship to television technologies (Gray 1992; Heeter and Greenberg 1985; Kang 2002; Walker and Bellamy 1996). Programme choice has been shown to correspond strongly to these factors, particularly gender, with male viewers preferring the genres of news/current affairs, comedy/sitcoms, nature/history documentaries, sports and arts programmes, and female audiences preferring quizzes/game shows, reality TV, drama, soap operas and cookery/home/garden programmes (Bennett 2006; Gantz and Wenner 1991; Gauntlett and Hill 1999; Morley 1992; Wenner and Gantz 1998). There are also large differences between the viewing habits of different ethnic groups (Brown and Pardun 2004). These characteristics structure viewers' motivations and availability for watching television (Albarran and Umphrey 1993; Cooper and Tang 2009) and influence viewers' modes of reception (Chiricos et al. 1997; Lacalle 2012; Livingstone 1994; Press 1991; Seiter et al. 1989).

In this article I analyse data collected for the 'Opening our eyes: How film contributes to the culture of the UK' report (Northern Alliance/Ipsos Media CT 2011) published by the British Film Institute (BFI) in July 2011 relating to television to discover how age and gender shape the experience of television for audiences in the United Kingdom. This dataset contains a wealth of information on the cultural tastes and opinions of citizens in the United Kingdom and although the BFI's data tables are freely available and users are encouraged to make use of them (Research and Policymaking for Film – A Symposium 2011: 9) they have been largely ignored by researchers to date. So that the information in this data set does not go to waste, the purpose of this article is to identify and circulate the key patterns in this data on UK television audiences for use by a wider audience and to suggest profitable areas for future research. I use correspondence analysis (CA) to identify patterns in this data focusing on how UK audiences describe television and their genre preferences, in order to understand how age and gender affect audiences' perceptions of the medium and determine programme choice. The next section describes the use and interpretation of CA and the data used, with the results and discussion presented in Section 3.

Methods

Correspondence analysis

Correspondence analysis (CA) is an exploratory technique for analysing data defined by two or more categorical variables in a contingency table (see Clausen 1998; Beh 2004; Greenacre 2007). A *contingency table* is the cross-classification of two or more categorical variables arranged as a number of rows (r) and a number of columns (c). Each variable has a number of levels defining its possible values, and each cell of a table gives the count for a specific combination of the different levels of the variables. The analysis of a contingency table aims to discover if the distribution of the levels of the row variable across the levels of the column variable is homogeneous. CA aims to reveal the structure inherent in a contingency table by examining relations among the row variables and column variables, and between row and column variables.

CA decomposes the variation in a contingency table, referred to as the *total inertia*, into the principal inertias of a set of dimensions, each accounting for a percentage of the total variation of the contingency table. For an $r \times c$ contingency table the maximum number of dimensions is $\min(r - 1, c - 1)$ though in practice the majority of the variation in a table will be described by a small number of dimensions. In selecting a subset of the available dimensions some of the information contained in the original contingency table is lost, but in discarding some dimensions the structure of the data is made clearer for as little cost as possible. The number of dimensions retained for analysis should include all

those dimensions it is possible to interpret meaningfully based on their contribution to the total inertia or their strong correlation with a particular row or column variable (Benzecri 1992).

CA is a form of geometric data analysis and represents the information in a contingency table as clouds of points in low-dimensional graphical displays (see Le Roux and Rouanet 2005; Greenacre 2010: 79–88). The projection of row and column points in low-dimensional space enables the visualization of the information contained within a contingency table simply and intuitively. The origin of the graph represents the average row (column) profile, and the variation within the table is described by assessing the distance of points from the centroid of the clouds: row (column) points lying close to the origin are similar to the average profile of the row (columns) while data points lying far from the origin indicate categories for which the observed counts differ from the expected values under homogeneity and account for a larger portion of the inertia. Points from the same data set lying close together represent rows (columns) that have similar profiles, and data points that are distant from one another indicate that the rows (columns) are remote. Distances between row and column points are undefined and have no meaningful interpretation. The angle (θ) subtended at the origin between the two sets of points can be used to describe these relationships: if $\theta < 90^\circ$ then row and column points are interpreted as positively correlated and as negatively correlated if $\theta > 90^\circ$. Points subtending a right angle at the origin ($\theta = 90^\circ$) are not associated (Pusha et al. 2009).

In addition to the graphical displays, CA produces a detailed numerical summary of the variation in a contingency table. The *mass* of a row (column) indicates the proportion accounted for by that category with respect to all the rows (columns), and is simply the row (column) total of divided by the total sample size; while the *inertia* of a data point is its contribution to the overall variation of the contingency table. The *squared correlation* (COS^2) describes that part of the variation of a data point explained by a particular dimension. The *quality* of a data point measures how the dimensions retained for the analysis represent it and is equal to the sum of the squared correlations of those dimensions. The higher the quality of a data point the better the extracted dimensions represent it, ranging from 0 (completely unrepresentative) to 1 (perfectly represented). The *absolute contribution* (CTR) of a data point describes the proportion of the inertia of each dimension it explains, and is determined by both the mass of the data point and its distance from the centroid.

The BFI dataset

I apply CA to data collected for the ‘Opening our eyes’ report published by the BFI in July 2011, which examined the cultural contribution of film in the United Kingdom.¹ This report analysed how audiences consume films, and attitudes to the impact of film, based on a series of qualitative ‘paired depth’ interviews and an online survey of 2036 UK adults aged between 15 and 74. Although primarily focused on film, this report and the detailed survey results contain much useful information for understanding audiences’ experiences of other art forms and entertainment media, including television, classical and popular music, theatre and dance, literature, art galleries and museums, video and computer games, sport, the countryside, and pubs, clubs, and dining out. The survey asked respondents about their level of interest and frequency of participation in these cultural and leisure activities, and were invited to share their perceptions of how these different activities contribute to the cultural life of the United Kingdom. These experiences and opinions were recorded across a range of personal and social factors, including age, gender, ethnicity, level of educational attainment, geography (i.e. region, urban/rural) and economic status.

Tables 133 and 280 of the BFI’s results output presents counts of genre preferences and perceptions of television sorted by gender, by age, and by gender and age, respectively. As my interest lies in the variation among UK audiences based on both gender and age I use only this last part of the table, treating ‘gender-age’ as an interactively coded variable with ten categories combining all the levels of the variables gender (two categories) and age (five categories) (see Greenacre 2007: 121–28). I apply CA to these tables using the {ca} package (Greenacre and Nenadić 2010) for R (R Development Core Team 2012).

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Perceptions of the medium

Question B.5 of the BFI survey asked respondents to select from a list of words and phrases those they felt applied to television. Respondents were able to select as many words and phrases as they wished. The detailed survey findings provide the percentage of respondents selecting a particular word or phrase. Television was highly rated for being 'entertaining' (87%), 'relaxing' (72%), 'informative/educational' (72%) and 'escapism' (65%). Over half of respondents described television as 'thought provoking' (56%) and just under half selected 'emotional/moving' (46%). Only a small proportion described television as 'boring' (14%) or as having a 'negative effect on people/society' (23%) – though in the latter category television ranked third behind only religion (32%) and video games (31%). Television scored less well in terms of being 'exciting' (39%), 'inspirational' (32%), 'artistic' (29%), 'good for people's self-development' (26%), 'sociable' (23%), 'rewarding' (21%), 'good for people's well-being' (20%) and 'fashionable' (15%). The detailed survey findings do not discuss audience perceptions of television in general and provide no breakdown of the findings by age or gender.

Table 1 shows the cross-tabulation of 'gender-age' with descriptive words or phrases applied to television based on Table 280 of the BFI's research output. The categories 'None of the above' and 'Don't know' attracted very few responses and are excluded from the correspondence analysis. Figures 1a and 1b are the symmetric maps based on the first three dimensions and represent 80.2 per cent of the total inertia. Tables 2a and 2b present the detailed results for the columns (gender-age categories) and rows (the words and phrases), respectively, for the first three dimensions. The quality of representation for the gender-age groups is generally good, and for the main part the three dimensions retained for analysis provide a good description of the differences between gender-age groups. However, the representation for males in the 45 to 54 age group is very poor. In fact, this group does not correlate strongly with any of the nine possible dimensions of the CA, and so it appears this particular section of the audience is highly idiosyncratic in its opinions. The quality of representation of the descriptive words and phrases is generally high, though it is less good for 'relaxing' and 'good for people's self-development' while the representation of 'good for people's well-being' is very poor. Overall, these factors are good predictors for UK audience's perception of television as a medium.

There are clear differences between audience groups' perceptions of television. Dimension 1 accounts for half the variation in Table 1 and opposes younger (aged 15 to 44) and older audience groups (45 and over) indicating that age is the key factor in determining how audiences perceive television. Younger audiences are more likely to describe television as 'exciting', 'fashionable', and 'sociable' than older audiences, who show a stronger tendency to perceive television as 'informative/educational', 'thought provoking', 'artistic', 'good for people's self-development', and 'escapist'. Younger respondents are more likely to describe the effect of television on people/society as negative. Dimension 3 opposes male and female respondents but accounts for only 13.2 per cent of the total inertia. Gender therefore has much less impact in shaping how audiences describe the medium, and the variation between different age groups is greater than the variation between male and female respondents in the same age group. Only females aged 45 to 54 correlate strongly with dimension 3, and among the descriptive words and phrases only 'rewarding' correlates strongly with this dimension. For these categories alone are gender differences greater than differences between age groups, but these differences are very small in both cases and this is reflected in the small contribution these categories make to the inertia of Table 1. Gender and age interact to produce a slight tendency for males over 45 to view television as 'artistic', but the variation in 'boring' and 'emotional' by gender and age is the result of some highly specific differences between groups of respondents.

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Table 1: Cross-tabulation of interactively coded gender-age variable with descriptive words or phrases for UK television audiences. Cell counts represent the number of respondents in each group reporting having selected a particular word or phrase. The categories 'None of the above' and 'Don't know' are excluded. Source: BFI/Northern Alliance/Ipsos Media CT.

	Male 15-24	Male 25-34	Male 35-44	Male 45-54	Male 55+	Female 15-24	Female 25-34	Female 35-44	Female 45-54	Female 55+
Unweighted base	162	158	196	182	292	173	182	213	187	291
Weighted base	183	180	191	183	269	173	176	194	188	298
Entertaining	144	144	148	160	227	140	144	174	170	263
Sociable	51	41	47	47	51	47	45	53	33	54
Informative	101	106	137	138	211	102	123	156	158	242
Relaxing	116	126	135	130	209	111	116	142	153	220
Escapism	96	103	122	124	191	90	100	136	146	222
Thought provoking	75	74	102	120	169	81	94	125	119	187
Rewarding	25	33	47	42	70	32	36	38	33	66
Self development	37	46	48	60	73	29	39	53	46	103
Fashionable	26	36	37	24	27	29	30	36	19	39
Inspirational	41	59	74	67	66	45	65	81	62	93
Emotional	41	73	81	84	99	74	75	110	93	130
Well being	31	30	41	40	41	24	35	44	42	70
Boring	17	30	40	27	40	24	25	31	23	31
Negative	29	43	49	38	55	54	41	61	44	47
Artistic	33	44	63	61	106	30	48	63	46	101
Exciting	71	78	75	80	90	71	70	87	70	94

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Table 2a: Detailed numerical summary of correspondence analysis of age, gender, and perceptions of television: gender-age groups.

Name	Mass	Quality	Inertia	Dimension 1		Dimension 2		Dimension 3	
				COS ²	CTR	COS ²	CTR	COS ²	CTR
Male 15-24	0.07	0.96	0.15	0.18	0.05	0.77	0.68	0.01	0.01
Male 25-34	0.08	0.71	0.09	0.66	0.11	0.00	0.00	0.05	0.03
Male 35-44	0.10	0.83	0.07	0.19	0.03	0.35	0.15	0.29	0.15
Male 45-54	0.10	0.15	0.03	0.13	0.01	0.02	0.00	0.01	0.00
Male 55+	0.13	0.79	0.17	0.59	0.20	0.00	0.00	0.20	0.26
Female 15-24	0.08	0.78	0.15	0.75	0.22	0.01	0.01	0.02	0.02
Female 25-34	0.08	0.66	0.03	0.58	0.04	0.08	0.02	0.00	0.00
Female 35-44	0.11	0.86	0.06	0.30	0.03	0.39	0.14	0.17	0.07
Female 45-54	0.10	0.81	0.09	0.20	0.04	0.00	0.00	0.61	0.43
Female 55+	0.15	0.86	0.17	0.83	0.27	0.00	0.00	0.02	0.02

Table 2b: Detailed numerical summary of correspondence analysis of age, gender, and perceptions of television: descriptive words and phrases.

Name	Mass	Quality	Inertia	Dimension 1		Dimension 2		Dimension 3	
				COS ²	CTR	COS ²	CTR	COS ²	CTR
Entertaining	0.13	0.93	0.03	0.03	0.00	0.86	0.16	0.04	0.01
Sociable	0.04	0.88	0.11	0.69	0.15	0.16	0.10	0.03	0.03
Informative	0.11	0.89	0.04	0.81	0.06	0.00	0.00	0.08	0.02
Relaxing	0.11	0.52	0.03	0.04	0.00	0.47	0.08	0.01	0.00
Escapism	0.10	0.87	0.04	0.76	0.06	0.06	0.01	0.05	0.02
Thought provoking	0.09	0.74	0.05	0.69	0.07	0.01	0.00	0.04	0.02
Rewarding	0.03	0.82	0.04	0.14	0.01	0.07	0.02	0.61	0.18
Self development	0.04	0.51	0.06	0.48	0.06	0.00	0.00	0.03	0.01
Fashionable	0.02	0.82	0.10	0.77	0.15	0.01	0.00	0.05	0.04
Inspirational	0.05	0.63	0.06	0.24	0.03	0.37	0.14	0.03	0.01
Emotional	0.07	0.94	0.07	0.04	0.01	0.53	0.23	0.36	0.19
Well being	0.03	0.23	0.03	0.04	0.00	0.00	0.00	0.19	0.05
Boring	0.02	0.87	0.06	0.30	0.04	0.24	0.09	0.33	0.15
Negative	0.04	0.78	0.11	0.68	0.15	0.09	0.06	0.01	0.01
Artistic	0.05	0.96	0.10	0.50	0.10	0.10	0.06	0.36	0.27
Exciting	0.06	0.92	0.08	0.83	0.13	0.09	0.04	0.00	0.00

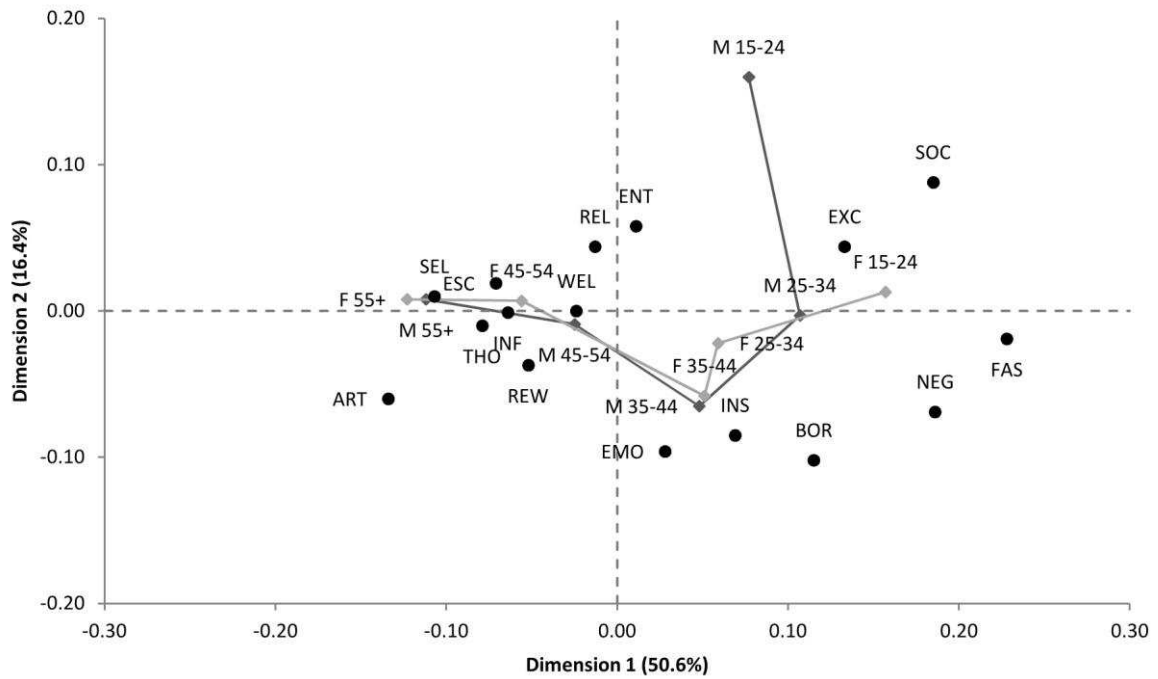


Figure 1a: Symmetric map of dimensions 1 and 2 of interactively coded 'gender-age' cross-tabulated with perceptions of television for UK film audiences. ENT = Entertaining, SOC = Sociable, INF = Informative, REL = Relaxing, ESC = Escapism, THO = Thought provoking, REW = Rewarding, SEL = Self development, FAS = Fashionable, INS = Inspirational, EMO = Emotional, WEL = Well being, BOR = Boring, NEG = Negative, ART = Artistic, EXC = Exciting.

Three gender-age groups correlate strongly with the second dimension, though it is males in the 15–24 age group that contribute the major part of the inertia. Dimension 2 contrasts the variation between this group and other respondents in general and males and females aged 35–44 in particular. Males aged 15–24 are much less likely to describe television as 'emotional and moving' (22%) compared to all other age groups, in which between 37 and 57% of respondents chose to describe television in this way. They are much less likely to perceive television as 'inspirational' compared to females aged 35–44 (22% versus 42%) and to describe television as 'boring' compared to males aged 35–44 (9% versus 21%). That these specific differences account for a greater proportion of the total inertia than the differences between genders associated with Dimension 3 indicates both how much the descriptive terms used by young male audience members differs from those of the other respondents and how little relevance gender has in describing how UK audiences perceive television.

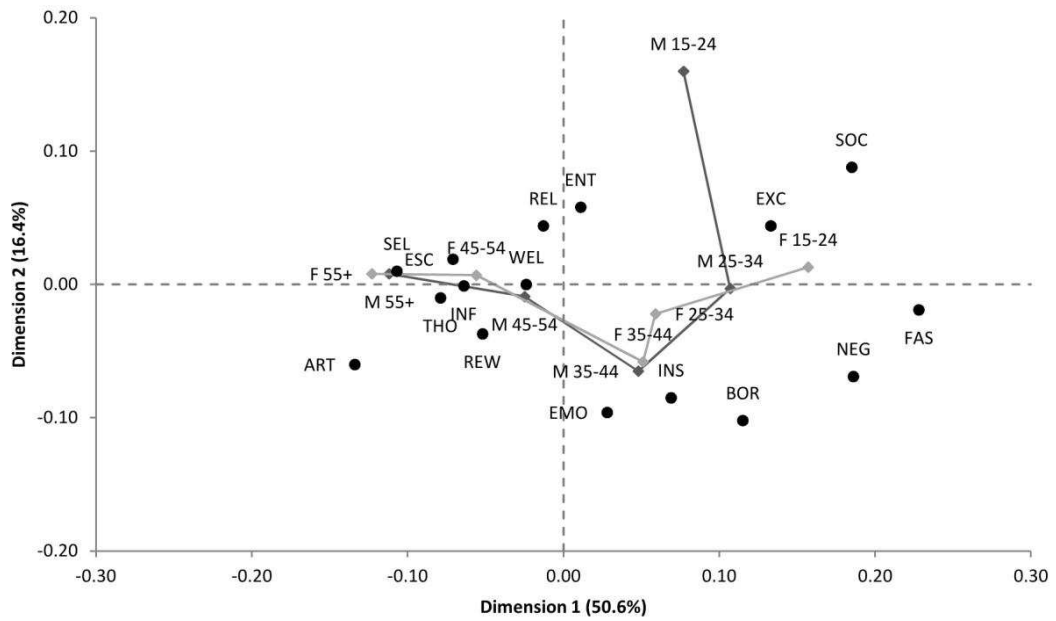


Figure 1a: Symmetric map of dimensions 1 and 2 of interactively coded 'gender-age' cross-tabulated with perceptions of television for UK film audiences. ENT = Entertaining, SOC = Sociable, INF = Informative, REL = Relaxing, ESC = Escapism, THO = Thought provoking, REW = Rewarding, SEL = Self development, FAS = Fashionable, INS = Inspirational, EMO = Emotional, WEL = Well being, BOR = Boring, NEG = Negative, ART = Artistic, EXC = Exciting.

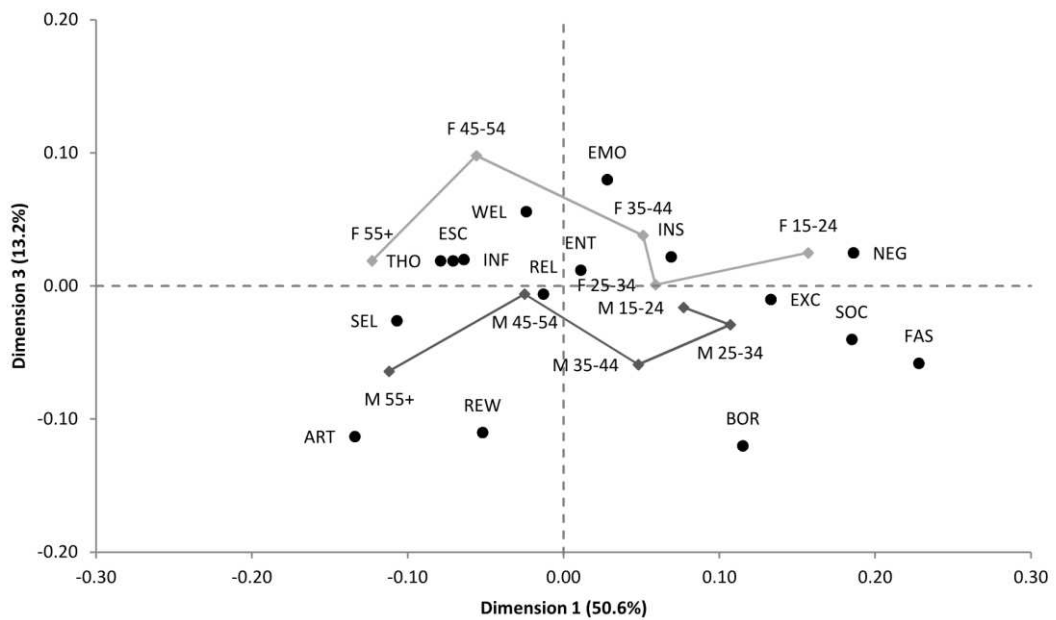


Figure 1b: Symmetric map of dimensions 1 and 3 of interactively coded 'gender-age' cross-tabulated with perceptions of television for UK film audiences. ENT = Entertaining, SOC = Sociable, INF = Informative, REL = Relaxing, ESC = Escapism, THO = Thought provoking, REW = Rewarding, SEL = Self development, FAS = Fashionable, INS = Inspirational, EMO = Emotional, WEL = Well being, BOR = Boring, NEG = Negative, ART = Artistic, EXC = Exciting.

These results show there is a generation gap between younger and older viewers. Though a large proportion of respondents in all age groups described television as entertaining, those viewers born before 1965 showed a stronger association with the other Reithian principles of informing and educating the audience than younger respondents. Their choice of programmes also reflects this difference, with older viewers more strongly associated with factual programming (news, wildlife/nature, documentaries) than younger viewers (see below). This contrast may reflect differences in the formative experiences of these generations: older viewers' exposure to the medium of television came in an era of limited channel choice in which the influence of the BBC (including BBC radio) dominated to a degree unthinkable today, whereas younger respondents have come of age in an era of great technological change (colour, stereo, widescreen, digital, HD, etc.) and round-the-clock multichannel multi-platform (terrestrial, satellite, cable, online) broadcasting in which the influence of public service broadcasters is greatly diminished. Ultimately it is not possible to determine from the BFI's data if these views are the result of respondents' formative experiences of a medium or if they are acquired and adapted over time. To solve this riddle will require a cohort study examining viewers' attitudes over several decades rather than the snapshot of UK television audiences provided by the BFI survey.

The perceptions of males aged 15–24 marks them out as distinct from the other groups, and this does not appear to be specific to television. I leave it as an exercise for the reader to check the following, but applying CA to perceptions of other cultural and leisure activities for the same descriptive words and phrases reveals similar patterns observed for television. The points for the gender-age groups for the cinema (Table 265 in the full set of results tables) and art galleries/museums (Table 300) show age to be the key factor, gender of little consequence, and young male respondents different in several key respects from the other gender-age groups. Although I have not examined respondent's perceptions for all the cultural and leisure activities in the BFI's study, this suggests such attitudes may be consistent across some sections British cultural life. However, this does not hold for pop/rock music (Table 275) or for video/computer games (Table 305), with the oldest age groups diverging from the others, and so these patterns are not universal. Future research will need to identify those cultural activities for which audiences in the UK hold similar attitudes.

Programme choice

Question B.3 of the BFI survey invited respondents to identify which, if any, of a range of types of television programmes they had watched in the last month. The detailed survey findings showed the most frequently watched programmes were news broadcasts (identified by 87% of respondents), followed by documentaries (79%), and comedies or sitcoms (78%). A second tier of programme types watched by approximately two-thirds of respondents included factual entertainment (68%), dramas (excluding soap operas) (66%), game/quiz/panel shows (62%), and wildlife/nature programmes (62%). Just over half of respondents had watched a sport programme (54%), while just under half identified soap operas (49%), reality TV/talent shows (44%), chat shows (44%) and music shows/concerts (42%). The least watched type of programme was culture shows, selected by 27% of respondents. The detailed survey findings provide a brief overview of how programme choice varies with age and gender. Male respondents showed stronger preferences for documentaries, factual entertainment, wildlife/nature programmes, culture shows and sport, while female audience members tended to select game/quiz/panel shows, soap operas, reality TV/talent shows and chat shows. Younger audiences were more likely to have watched comedies or sitcoms than older audiences, who were more likely to have watched news programmes and documentaries. The proportion of respondents selecting reality TV/talent shows declined with age whereas the proportion selecting wildlife/nature programmes increased with age.

Table 3 presents the cross-tabulation of 'gender-age' with programme type based on Table 133 of the BFI's research output. The first two dimensions account for 91.0 per cent of the total inertia so I retain these dimensions only for analysis and Figure 2 is the resulting symmetric map. Tables 4a and

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4b present the detailed numerical summary of the results for the columns (gender-age categories) and rows (programme types), respectively

Table 3: Cross-tabulation of interactively-coded gender-age variable with programme type. Cell counts represent the number of respondents in each group reporting having watched a programme in the past month. The categories 'None of these' and 'Don't know' are excluded. Source: BFI/Northern Alliance/Ipsos Media CT.

	Male 15-24	Male 25-34	Male 35-44	Male 45-54	Male 55+	Female 15-24	Female 25-34	Female 35-44	Female 45-54	Female 55+
Unweighted base	159	153	190	180	288	169	180	211	181	284
Weighted base	180	174	185	181	265	169	174	192	182	290
Chat	51	78	84	77	89	84	84	98	96	127
Comedy/Sitcoms	143	151	151	144	189	145	148	151	144	183
Culture	36	64	68	52	70	23	54	49	44	70
Documentaries	115	142	152	158	234	96	129	144	155	247
Factual Entertainment	127	135	141	139	180	99	124	128	128	155
Game/Quiz/Panel	105	106	107	97	148	110	120	117	117	199
Music/Concerts	87	86	72	70	88	87	79	87	81	106
News	119	155	166	169	255	104	148	168	167	281
Other Drama	103	116	125	130	165	115	128	130	126	184
Reality TV/Talent	78	78	65	59	58	115	108	112	94	110
Soap Operas	74	78	75	76	101	101	83	109	109	173
Sport	112	117	129	131	188	50	81	77	78	118
Wildlife/Nature	70	100	121	138	207	56	90	108	126	217

Table 4a: Detailed numerical summary of correspondence analysis of age, gender, and programme type: gender-age groups.

Name	Mass	Quality	Inertia	Dimension 1		Dimension 2	
				COS ²	CTR	COS ²	CTR
Male 15-24	0.08	0.78	0.09	0.05	0.01	0.74	0.27
Male 25-34	0.09	0.75	0.03	0.06	0.00	0.68	0.09
Male 35-44	0.10	0.81	0.06	0.60	0.05	0.21	0.05
Male 45-54	0.10	0.90	0.07	0.86	0.09	0.04	0.01
Male 55+	0.13	0.97	0.20	0.97	0.30	0.00	0.00
Female 15-24	0.08	0.97	0.27	0.97	0.40	0.01	0.01
Female 25-34	0.09	0.74	0.06	0.69	0.06	0.06	0.01
Female 35-44	0.10	0.91	0.05	0.83	0.07	0.07	0.02
Female 45-54	0.10	0.86	0.03	0.35	0.02	0.51	0.07
Female 55+	0.14	0.95	0.13	0.01	0.00	0.94	0.48

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Table 4b: Detailed numerical summary of correspondence analysis of age, gender, and programme type: programme types.

Name	Mass	Quality	Inertia	Dimension 1		Dimension 2	
				COS ²	CTR	COS ²	CTR
Chat Shows	0.06	0.69	0.05	0.53	0.04	0.16	0.03
Comedy/Sitcoms	0.10	0.95	0.04	0.30	0.02	0.65	0.10
Culture Shows	0.04	0.41	0.05	0.33	0.03	0.08	0.02
Documentaries	0.10	0.98	0.04	0.76	0.05	0.22	0.03
Factual Entertainment	0.09	0.92	0.03	0.07	0.00	0.85	0.11
Game/Quiz/Panel	0.08	0.57	0.03	0.45	0.02	0.13	0.01
Music Shows/Concerts	0.06	0.89	0.05	0.65	0.05	0.24	0.05
News	0.11	0.96	0.05	0.56	0.04	0.40	0.07
Other Drama	0.09	0.45	0.01	0.44	0.01	0.01	0.00
Reality TV/Talent	0.06	0.99	0.23	0.98	0.34	0.01	0.01
Soap Operas	0.07	0.91	0.08	0.55	0.07	0.37	0.12
Sport	0.07	0.98	0.20	0.65	0.19	0.34	0.26
Wildlife/Nature	0.08	0.99	0.15	0.66	0.15	0.33	0.19

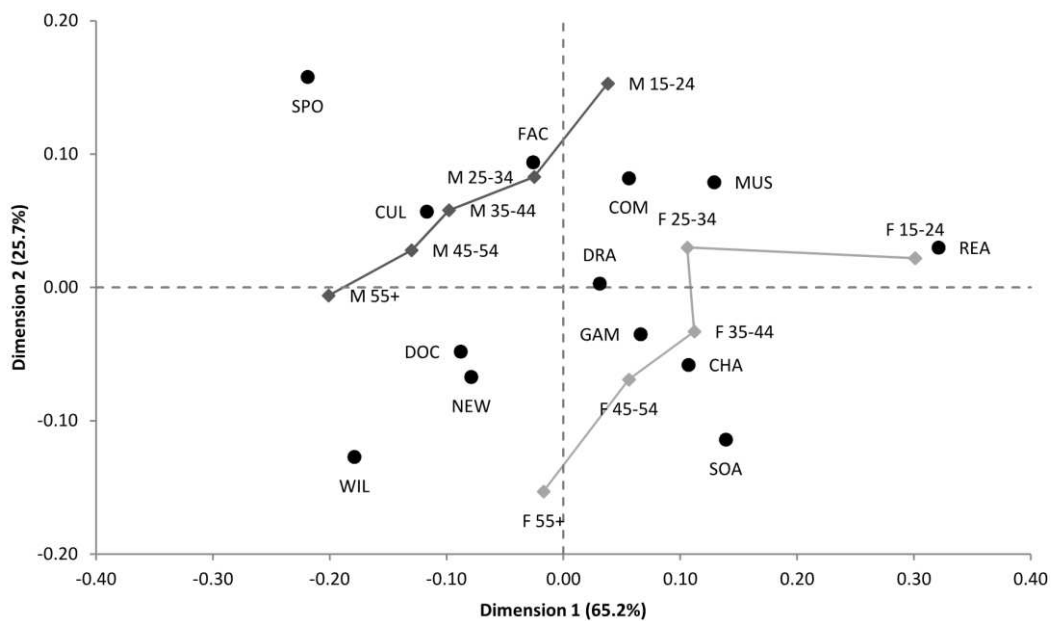


Figure 2: Symmetric CA map of interactively coded 'gender-age' cross-tabulated with programme type for UK film audiences. CHA=Chat shows, COM=Comedy/sitcoms, CUL=Culture shows, DOC=Documentaries, FAC=Factual entertainment, GAM=Game/quiz/panel shows, MUS=Music shows/concerts, NEW=News, DRA=Other drama, REA=Reality TV/talent shows, SOA=Soap operas, SPO=Sport, WIL=Wildlife/nature.

It is clear from the distances between the column points in Figure 2 that there are differences in the choice of television programmes between male and female viewers and there are age profiles within these gender groups. However, the dimensions retained for analysis cannot be associated specifically with gender or age. The squared correlations with Dimension 1 increase with age for male respondents and decrease for females, and the pattern is reversed for Dimension 2 with squared correlations decreasing with age for male viewers and (those aged 25–34 aside) increases for females. The CTRs of the row points in Table 4a shows that Dimension 1 opposes males over 55 and females aged 15–24, while males aged 15–24 and females over 55 account for the major part of the CTRs to Dimension 2. Age and gender contribute to both dimensions, with differences between audience groups are greatest at the polarities of these factors.

The quality of the gender-age categories is high (see Table 4a) and so the symmetric map is a good representation of the variation in programme choice between different sections of the audience. Figure 2 shows that the distances between the age groups of male respondents decrease with age until later middle age and their viewing choices converge with age until the age of 55, after which choice of programme type begins to diverge. The closeness of the points for males in the 35–44 and 45–54 age groups indicates they watched similar types of programmes. A similar pattern is evident for female audience members, although the greater distances between the gender-age groups in Figure 2 show there is greater variation among female respondents. Females aged 15–24 in particular are remote from the other female age groups, while those in the 55-and-over category are also distant from the three middle age groups albeit to a lesser degree. The three middle age groups are closer to one another than either of these extremes and have more in common in their choice of television programme than with either the eldest or the youngest respondents.

Turning to the genre categories, the quality of these points is generally high indicating the two dimensions in Figure 2 provide a good representation of the variation in Table 3 and that age and gender are good indicators of programme choice. Just four types of programme account for just under two-thirds of the inertia of the rows in Table 3: there is greater variation in respondents selecting reality TV/talent shows, sport, wildlife/nature and (to a lesser extent) soap operas than the rest of the genres. Most genres show some correlation with both dimensions, and so the dimensions of Figure 2 cannot be distinguished in terms of genres. Only two programme types correlate strongly to a single dimension. Reality TV/talent shows correlate very strongly with Dimension 1 and contribute one-third of the inertia of this dimension; while factual entertainment programmes correlate strongly with Dimension 2 but contribute only just over 10 per cent to the total inertia of this dimension. The point representing other drama programmes lies close to the origin of Figure 2, and this genre shows the least variation among audience sections.

Though the dimensions of Figure 2 with are not associated with specific factors or programme types the relationship between age, gender and programme choice can be identified by looking at the relationship between the column points and row points.

Programme types strongly associated with male audiences are factual entertainment, culture shows and sport, while genres strongly associated with female audiences are reality TV/talent shows, game/quiz/panel shows, chat shows and soap operas. For some of these programme types age is a secondary factor identifying which age groups show stronger preferences within a given gender group. A total of 63% of respondents who selected sport programmes were male compared to 37% of females, but those aged 15–24 were less likely to have watched a sport programme than those in other age groups with the difference between age groups greater among female viewers. Male respondents in every age group showed a stronger preference for culture shows than their female counterparts, but in both gender groups the proportion of respondents selecting this genre is greatest among 25–34 year olds for female viewers and for male viewers in the 25–34 and 35–44 age groups. Interest in factual entertainment programmes is greater among male viewers than female viewers (53% of respondents selecting this genre against 47%), and in both gender groups is greater among the middle age groups rather than with the youngest and oldest viewers. A total 61% of respondents who had watched a

reality TV/talent show and 59% who had watched a soap opera were female compared to males who accounted for 39 and 41% of viewers, respectively. Within the gender groups, younger viewers are more likely to watch reality TV/talent shows than older viewers, but for soap operas, females aged 25–34 are less likely to have watched this type of programme (48%) than other female viewers (57–60%).

Other genres strongly correlated with gender do not show the same variation, and age is not a relevant factor in determining programme choice. Female respondents showed a greater preference for both game/quiz/panel shows and chat shows (54 and 56 per cent of respondents selecting these genres against 46 and 44 per cent, respectively); but, with the exception of males aged 15 to 24 who showed little appetite for chat shows, there are no particular patterns in terms of the age of viewers within these age groups.

Programme types for which age provides the best prediction of viewing habits are music shows/concerts and comedy/sitcoms for younger audiences, and wildlife/nature, news and documentaries for older viewers. Gender appears to play no role in determining audience preference for these genres. Of those respondents who had watched a comedy show or sitcom in the month prior to the survey, 50 per cent were male and 50 per cent were female. This is also the case for news programmes. Audience preference for music shows/concerts is greatest amongst the 15–24 and 24–35 age groups and declines with age, but while this decline is greater for male viewers there is no evidence of a gender gap overall. Audience preference for wildlife/nature programmes and for documentaries is lowest among the 15–24 age group and increases with age.

Contrary to the results of the BFI's survey, there is no evidence that respondents who had watched wildlife programmes were substantially more likely to be male than female (52% versus 48%). The audience for documentaries also divided equally along gender lines, with male respondents accounting for 51% of respondents who had watched this type of programme in the past month and females 49%. This discrepancy arises because the BFI's analysis apparently relies on the ratio of the proportions of male and female respondents selecting these categories (i.e. the relative risk [RR]), which does indeed show the likelihood a male viewer watched a wildlife/nature programme (RR=1.09, 95% CI: 1.02, 1.17) or a documentary (RR=1.06, 95% CI: 1.01, 1.11) was greater than the likelihood a female viewer had done the same (though the effect in both cases is small). The CA presented here looks at the same data from a different angle by asking whether viewers who watched a particular type of television programme are more strongly associated with one gender or another. CA describes the structure of the audiences for wildlife/nature programmes and documentaries which the RR does not and shows audiences for these programmes do not divide on gender lines.

The representation of culture shows and other drama programmes (excluding soap operas) by Figure 2 is relatively poor. Bennett (2006) found that level of educational attainment and occupational class are strong predictors for preferences for culture programmes. The BFI survey does not provide any information about the relationship between qualifications and programme choice, but Table 135 of the results output shows that those earning over £30K are more likely to watch culture shows than those earning less than this amount (31 per cent versus 24 per cent) supporting the argument that economic status is an important factor. The category 'other drama' may be too vague to be meaningful for audiences as it includes a very wide range of programmes: the examples given in the questionnaire are *Dr. Who* (1963–1989, 2005–), *Mad Men* (2007–2015) and *CSI: Crime Scene Investigation* (2000–). It is possible that age and gender determine audience preferences for different types of dramas (i.e. crime, historical, science fiction, romance, etc.) but that aggregating these programmes under a single heading in this way obscures variation between different sections of the audience.

Morley (1992) and Bennett (2006) identified gender and age as polarising factors in programme choice for UK television audiences, with gender dominant and age a consequential albeit lesser factor. My analysis of the BFI data confirms this conclusion in many respects but the overall pattern is more complicated than previously reported. Variation in programme choice is highly structured in terms of age and gender. The extent to which of these factors determine audience choice depends on the type of programme: gender is the dominant factor in explaining viewing choice for some programme types,

with age a secondary factor in several cases, while age is the key explanatory factor for other genres for which gender seemingly has little influence. The interaction – or lack of interaction – between gender and age is more complicated than Morley, Bennett, or the BFI's summary of the results suggest. The results presented here confirm the gender differences for sport, arts programmes, quizzes/game shows, reality TV and soap operas; and, additionally, they broadly corroborate the strength of gender differences for these genres. However, I found that gender did not play any role in determining programme choice for news, wildlife/nature programmes, documentaries, while I did find gender to be an important factor for chat shows. Bennett's analysis of the impact of age on programme is not comparable to my results because the differences between genre terms are too great to draw meaningful comparisons.

Bennett (2006) also described television programmes as being of low-, medium or high-legitimacy, identifying soap operas, quiz and game shows, reality TV, and variety and chat shows as being of low legitimacy. Applying this distinction to the BFI dataset shows that audiences for medium- and high-legitimacy genres are associated with male viewers (sport, culture shows) or divide in terms of age groups (news, documentaries, comedy/sitcoms), while low-legitimacy genres are strongly associated with female respondents. However, this pattern is complicated because gender is not a factor in how audiences perceive the medium of television and so the apparent gender differences between high- and low-legitimacy genres are not straightforwardly attributable to taste cultures.

Conclusion

This study analysed how the age and gender of UK television audiences influenced their perceptions of television and the types of programmes they watch, using data from the BFI's survey of cultural consumption in the United Kingdom. Overall, this study confirms some of the findings of prior research on TV audiences but it also indicates that the role of gender and age is more complicated than previously noted. Graeme Turner has argued that 'specific factors' like class, occupation, ethnicity, gender, educational background and so on, are 'so many and so interrelated that even the attempt to make definitive empirical connections is a waste of time' (1996: 123), but CA (and other geometric data analytic methods) allows us to determine which factors are important in a given context and to understand the nature of any interrelationships that exist between them. This method has been used by continental researchers to explore taste cultures in relation to television and other media forms (see Lebaron 2009) and has previously been applied to television audiences in the United Kingdom (Bennett 2006), although these methods remain underused by anglophone researchers (Gayo-Cal et al. 2006).

The results show that age is the most important factor in shaping perceptions of the medium, but that gender is much less relevant. Future research will need to identify the underlying factors that account for generational differences in the perception of television, not least because these differences will be likely be related to their motivations, uses and gratifications in relation to television. This is indicated by the educational/informative perceptions of the older respondents in the survey relative to the predominantly entertainment values of the younger generation, though the BFI's data does not allow us to say why this should be the case. One gender-age group (males aged 15–24) shows marked differences to the other groups, and the BFI's data indicates this is consistent with their perceptions of other media. It appears that this particular part of the audience is highly idiosyncratic relative to other sections of the television audience, and a key question to be addressed is why this group is so different from females of the same age group and males in all other age groups.

There are clearly differences between genders and age groups in terms of their choice of programmes, but the extent to which one characteristic is dominant varies according to the type of programme. For some television genres (soap operas, sport, etc.) gender is the dominant feature, while for others (documentaries, comedies, etc.) age is the key factor. This suggests that specific individual characteristics of UK television audiences are operative at different times in different ways, though it is

unknown how this impacts on the ways in which that audience interprets particular programmes. This has not previously been noted by researchers such as Morley (1992) and Bennett (2006) when looking at the relationship between gender, age, and programme choice, and future studies on this topic will need to take the interactions between these variables into account. There are also some genres (e.g. culture shows) for which neither age nor gender are reliable predictors. The role of age in shaping perceptions of television is broadly consistent with the programmes viewed by different age groups, but it is unclear why gender should be so insignificant in the former context and so important in the latter. This difference suggests an obvious starting point for future research on television audiences.

There is also evidence that the roles of age and gender as factors underpinning genre preferences are different for film and television. Analysing the relationship between age and gender of UK audiences for *films* using the same BFI dataset, Redfern (2012) found gender was the dominant factor in shaping genre preferences, with clear age profiles within gender groups. These patterns are not evident for *television programmes* in the United Kingdom, indicating that audiences behave in different ways when consuming different media. Audience characteristics like age and gender shape media use but their impact varies from one medium or another. This points to the need to create integrated models of audience exposure that include the interaction between individual and structural factors (Cooper and Tang 2009) for both film and television in order to determine why the relationship between gender, age and genre is different for television programmes and films.

Notes

1. The report, the research questionnaire, the detailed summary and the full set of result tables are available at: <http://www.bfi.org.uk/publications/openingoureyes/>. Accessed 21 November 2011.

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