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Descriptive Finding

Exploring the childless universe: Profiles of women and men without children in Italy

Valentina Tocchioni

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Descriptive Finding

Exploring the childless universe: Profiles of women and men without children in Italy

Valentina Tocchioni[1]

Abstract

BACKGROUND
In recent decades, several Western countries have experienced a large increase in childlessness. Relatively little is known about the profiles of childless women in Italy, and virtually nothing about childless men.

OBJECTIVE
The aim of this paper is to address this gap by identifying typical life course trajectories of childless women and men in Italy from a gender perspective and in a cross-cohort comparison.

METHODS
In order to identify typical patterns I adopted a holistic perspective, applying sequence analysis to data on partnership, employment, and education for a sample of childless women and men derived from the 2009 Italian Family and Social Subjects survey.

RESULTS
Six profiles each were identified for childless women and men, which illustrate the marked heterogeneity of the childless universe. Four out of the six were similar for both genders. Importantly, the life course of the childless evolved across cohorts, with an increasing proportion of employed women and single men in the youngest generations.

CONTRIBUTION
This work sheds light on differences in childlessness in Italy by gender and generation. It confirms the role of factors such as not having a partner, and adds new empirical findings such as the pattern of disadvantaged, less-educated women and that of highly educated men with a history of unstable employment.

[1] Università degli Studi di Firenze, Florence, Italy. Email: v.tocchioni@disia.unifi.it.

1. Introduction

In recent decades, many Western countries have experienced a large increase in childlessness, and new causes of infertility are emerging, often related to new preferences, changing family models and roles, and changes in the socioeconomic environment (Tanturri et al. 2015). The childless universe now has a very heterogeneous population (Mynarska et al. 2015), although only a few individuals plan never to have children (Goldstein et al. 2013; Tanturri and Mencarini 2008), and not all of them stick to their plan (Moore 2017). Others postpone childbearing and eventually decide against it or find that it is too late (Berrington 2004; Houseknecht 1979).

1.1 Reasons for childlessness

The multiple causes of childlessness include several couple-related factors that apply across countries and genders, including late entry into union, union interruption, and lack of a partner (Berrington 2017; Connidis and McMullin 1996; Jalovaara and Fasang 2017; Parr 2010). Childbearing may also be affected by couples disagreeing on fertility (Tanturri and Mencarini 2007), or the presence of fecundity problems, which may be caused by postponement of parenthood (Letherby 1999).

Other factors relate to individuals rather than couples. The higher a woman's level of education, the more likely she is to remain childless (Berrington 2017; Frejka 2017; Köppen, Mazuy, and Toulemon 2017), whether because of a postponement effect (Bloom and Trussell 1984; Hoem, Neyer, and Andersson 2006; Koropeckyj-Cox and Call 2007) or because being highly educated is an indicator of less traditional attitudes (van de Kaa 1987; Lesthaeghe 1995). Nevertheless, in some countries childlessness is prevalent amongst less-educated women and amongst those who lack socioeconomic resources (Miettinen et al. 2015). In men, childlessness is usually associated with low educational attainment (Barthold, Myrskyla, and Jones 2012; Burkimsher and Zeman 2017; Köppen, Mazuy, and Toulemon 2017; Miettinen et al. 2015; Rotkirch and Miettinen 2017).

The nature of the link between motherhood and women's paid work remains unresolved (Goldscheider, Bernhardt, and Lappegård 2015; Keizer, Dykstra, and Jansen 2008; see Matysiak and Vignoli 2008 for a review). A woman might postpone or even renounce childbearing because of rising opportunity costs in relation to her professional career, especially in countries that lack structured family policies (Neyer, Lappegård, and Vignoli 2013; Rowland 1998), or because of the competition for women's time and energy (Barber 2001; Dorbritz 2008; Willekens 1991). But this negative relationship is changing as the second stage of the gender revolution progresses (Goldscheider,

Bernhardt, and Lappegård 2015) and men become more involved in household and care tasks (Cooke 2009; Goldscheider, Bernhardt, and Brandén 2013). Recent fertility research suggests that self-employed people should be treated as a distinct group. The incidence of childlessness is low amongst self-employed women because the flexibility of self-employment makes it easier to reconcile family and work obligations (Boden 1999; Connelly 1992; Köppen, Mazuy, and Toulemon 2017). In the case of men, previous research has consistently shown that socioeconomically disadvantaged men, such as the unemployed or those in low-paid jobs, are the most likely to remain childless (Berrington 2017; Keizer, Dykstra, and Poortman 2010; Parr 2010), whilst self-employed men are the least likely (Köppen, Mazuy, and Toulemon 2017).

1.2 The Italian context and study objective

In recent years there has been an increase in research on childlessness in both women and men (i.e., Berrington 2017; Jalovaara and Fasang 2017), yet there has been scant research on childlessness in Italy, despite its rapid increase. The percentage of Italian women who ultimately remain childless rose from approximately 11% in the 1950–1954 cohort to about 21% in the 1965–1969 cohort (Miettinen et al. 2015). Although in Italy marriage is still widely seen as a necessary preliminary to childbearing (Vignoli and Salvini 2014), cohabitation has become much more widespread since the start of the 21st century and the number of children born outside marriage has also increased (Istat 2014). Women's participation in the labour force has been rising gradually since the 1970s, but remains at low levels. Nevertheless, the dual earner model is now widespread amongst younger Italian households (Vignoli, Drefahl, and De Santis 2012), despite the very low levels of male participation in domestic chores (Anxo et al. 2011).

This study aims to provide a picture of childlessness in Italy. Recognising that the life course is a complex construct, I concentrated on the factors that appear most relevant to childbearing, namely partnership, employment, and education. The study uses sequence analysis and cluster analysis to model a few typical life course trajectories of childless people and investigate gender and cohort differences. This study extends previous research on childlessness in Italy because it expands on the life course trajectories presented in Mynarska et al. (2015), includes more birth cohorts, and, in particular, includes men.

2. Data and methods

This study is based on a sample of women and men who contributed to the Italian Multipurpose Household Survey on Family and Social Subjects (FSS), conducted by the Italian Institute of Statistics (ISTAT) in November 2009. The study sample (1,687 women and 1,727 men born between 1907 and 1969) only includes childless women and men who were at least 40 years old at the interview date, in order to restrict it to people who had already passed their most fecund period.

Sequence analysis is well suited to the analysis of life course patterns, because it implements the theoretical concept of a holistic "trajectory" rather than focusing on a discrete "transition" (Aisenbrey and Fasang 2010). I used sequence analysis with optimal matching (OM) algorithm and subsequent clustering (Aassve, Billari, and Piccarreta 2007) to identify distinctive profiles of childless women and men. The life course of each subject was described in terms of three factors – education, employment, and partnership – in units of one month, from the age of 16 years to a maximum of 50 years (less for the younger subjects). Education was treated as a binary variable (in education, not in education), employment as a three-state variable (employed, self-employed, not employed) and partnership as a three-state variable (single, cohabiting, married). Thus there were 18 possible states per individual per month.

The OM algorithm was applied to childless women's and men's sequences separately (Rohwer and Potter 2005). Unitary insertion/deletion costs and substitution costs derived from state-transition rates (e.g., Aisenbrey and Fasang 2017) were used in order to uncover regularities between sequences and thus obtain the dissimilarity matrix, to which Ward's clustering algorithm was applied, which is a well-established sequence analysis procedure (see Aassve, Billari, and Piccarreta 2007; Jalovaara and Fasang 2017; Mynarska et al. 2015). Both "stopping rules" procedures (see Calinski and Harabasz 1974; Duda and Hart 1973) and visual inspections suggested that the best solutions for both groups were six-cluster solutions. Interestingly, four out of the six clusters were similar for both genders, so in effect there were eight distinct life course trajectories leading to childlessness, described in terms of education, employment, and partnership. The proposed cluster labels are derived from the cluster characteristics (see Table 1).

Table 1: Distribution of childless women and men by cluster, absolute and percentage values

Cluster	Childless women		Childless men	
	n	%	n	%
Disadvantaged	292	17.3	153	8.9
Highly educated; unstable employment and partnership	165	9.8	323	18.7
Employed married	211	12.5	313	18.1
Employed single	549	32.5	605	35.0
Self-employed women	195	11.6	–	–
Self-employed married men	–	–	130	7.5
Self-employed single men	–	–	203	11.8
Stay-at-home wives	275	16.3	–	–
Total	**1,687**	**100.0**	**1,727**	**100.0**

Source: Own elaboration on FSS 2009 data.

3. Childlessness profiles at a glance

I identified six clusters of childless women, rather than the five identified by Mynarska et al. (2015). The first cluster, labelled 'disadvantaged' (Mynarska et al. 2015), consisted of women who had lived in the same state for almost the entire observation period, i.e., they did not work or study and were single (see Figure 1a). The frequencies of all other states were negligible. The majority had little education (see Table 2a). The second cluster, 'highly educated; unstable employment and partnership', was characterised by prolonged education; it had the highest percentage of women with tertiary education. Consequently, women in this cluster postponed employment and their employment history was fragmented and characterised by several employment spells. Their partnership history was also fragmented and their co-residential relationships tended to be short; this cluster had the highest mean number of unions and lowest mean number of years spent in unions (see Table 2a). Unlike all the other clusters, a notable proportion of the women in this cluster had been involved in cohabiting relationships (see Figure 1b). The 'employed married' cluster was characterised by childless women who had worked during most of the observation period (see Figure 1c) but had married quite early, thus spending many years both in a couple and in employment (see Table 2a). The fourth cluster, 'employed single', consisted of women who, like those in the previous cluster, had worked for most of the observation period but had not entered a partnership and tended to be more educated (see Figure 1d). 'Self-employed' women spent most of the observation period in self-employment (see Figure 1e). Many were single and had never entered a partnership

(41.5%), although a considerable proportion was married and some cohabited. The last cluster, 'stay-at-home wives', consisted of married women who had never (or rarely) worked (see Figure 1f). All had been in partnerships for long periods and their general level of education was low (see Table 2a).

The first four male profiles were essentially the same as the corresponding female profiles. The 'self-employed married' cluster was characterised by men in self-employment who were married (see Figure 1g), whereas the 'self-employed single' cluster (see Figure 1h) consisted of men who were self-employed but had not married.

Table 2: Distribution of childless women and men by cluster and descriptive information from sequence analysis

a) Women

Cluster		Disadvantaged	Highly educated; unstable employment and partnership	Employed married	Employed single	Self-employed	Stay-at-home wives
Union	Never in a union (%)	247 (84.6)	24 (14.6)	–	440 (80.2)	81 (41.5)	–
	Average years spent in union (only women who have entered in a union)	3.4	12.8	23.1	4.4	14.8	22.3
	Mean number of union spells (only women who have entered in a union)	1.1	1.4	1.1	1.2	1.3	1.1
Education	Women with primary education (%)	163 (55.8)	17 (10.3)	63 (29.9)	113 (20.6)	75 (38.5)	154 (56.0)
	Women with tertiary education (%)	8 (2.7)	45 (27.3)	21 (10.0)	72 (13.1)	23 (11.8)	5 (1.8)
	Average years spent studying (all women)	0.9	7.2	1.9	2.5	2.3	0.8
Employment	Never worked (%)	224 (76.7)	4 (2.4)	–	–	–	186 (67.6)
	Average years spent working (only women who have worked)	6.0	20.1	26.6	24.4	24.9	8.0
	Mean number of employment spells (only women who have worked)	1.8	2.1	1.9	1.8	1.8	1.5

Table 2: (Continued)

b) Men

Cluster		Disadvantaged	Highly educated; unstable employment and partnership	Employed married	Employed single	Self-employed married	Self-employed single
Union	Never in a union (%)	140 (91.5)	134 (41.5)	–	508 (84.0)	–	160 (78.8)
	Average years spent in union (only men who have entered in a union)	3.7	11.7	18.5	3.4	18.5	3.8
	Mean number of union spells (only men who have entered in a union)	1.2	1.4	1.1	1.2	1.1	1.2
Education	Men with primary education (%)	76 (49.7)	54 (16.7)	88 (28.1)	123 (20.3)	40 (30.8)	62 (30.5)
	Men with tertiary education (%)	1 (0.7)	47 (14.6)	20 (6.4)	45 (7.4)	14 (10.8)	25 (12.3)
	Average years spent studying (all men)	0.7	3.8	2.2	2.0	2.4	2.4
Employment	Never worked (%)	108 (70.6)	15 (4.6)	–	–	–	–
	Average years spent working (only men who have worked)	4.0	20.1	26.9	26.4	27.5	26.3
	Mean number of employment spells (only men who have worked)	2.3	2.4	2.0	2.1	2.0	1.5

Source: Own elaboration on FSS 2009 data.

Figure 1: State distribution plot of childless women and men by cluster and age

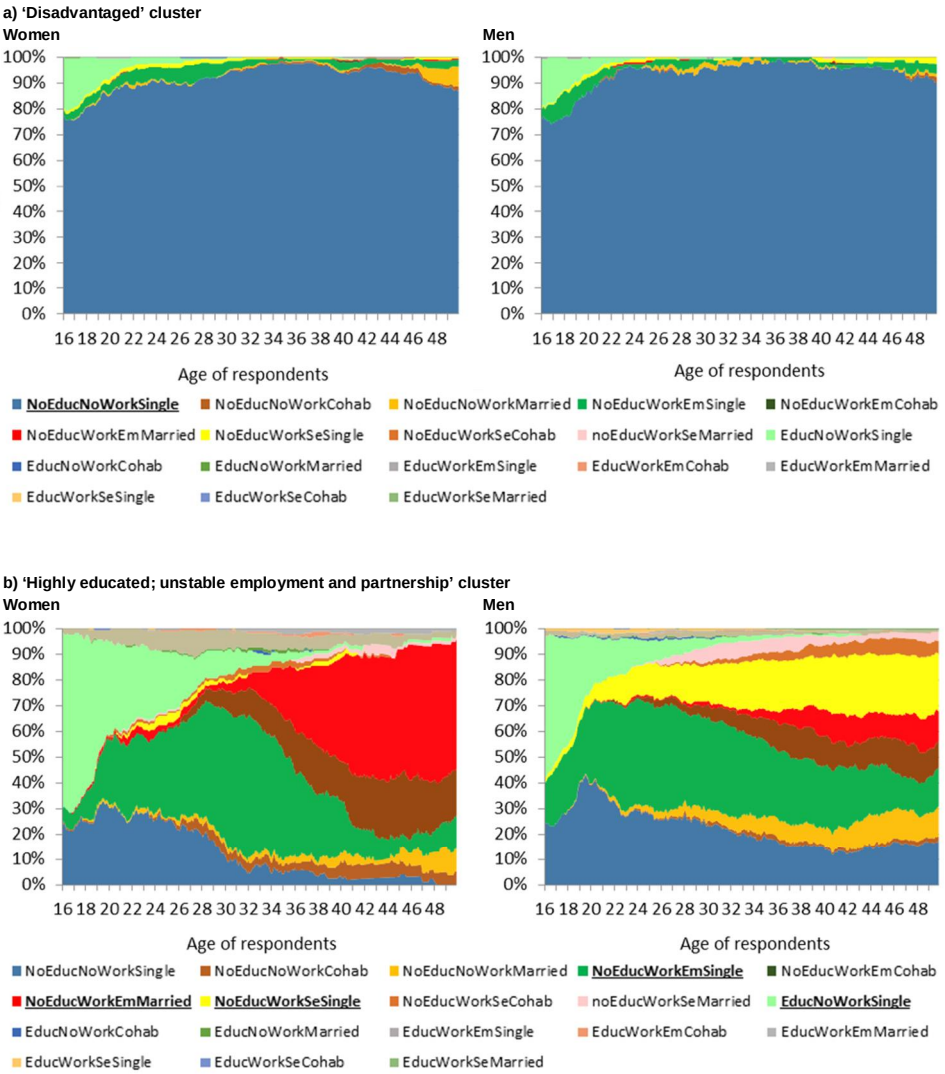
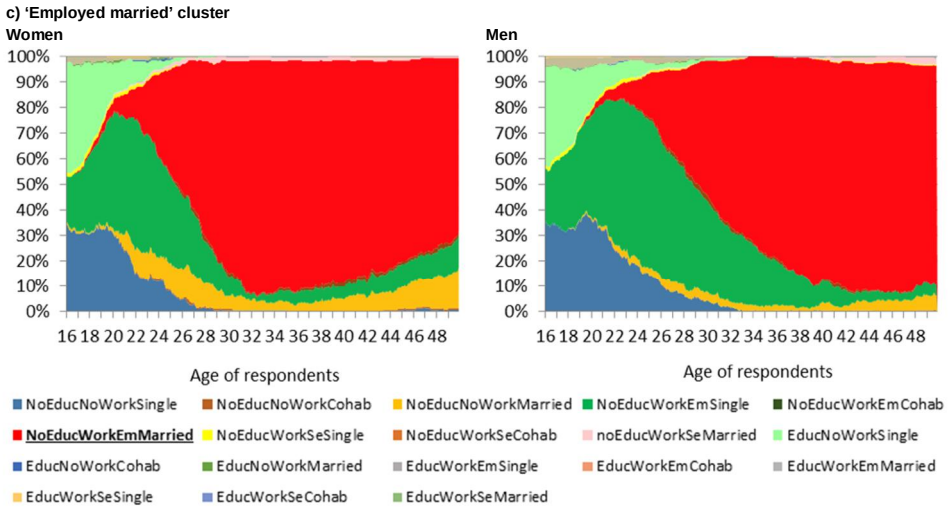


Figure 1: (Continued)



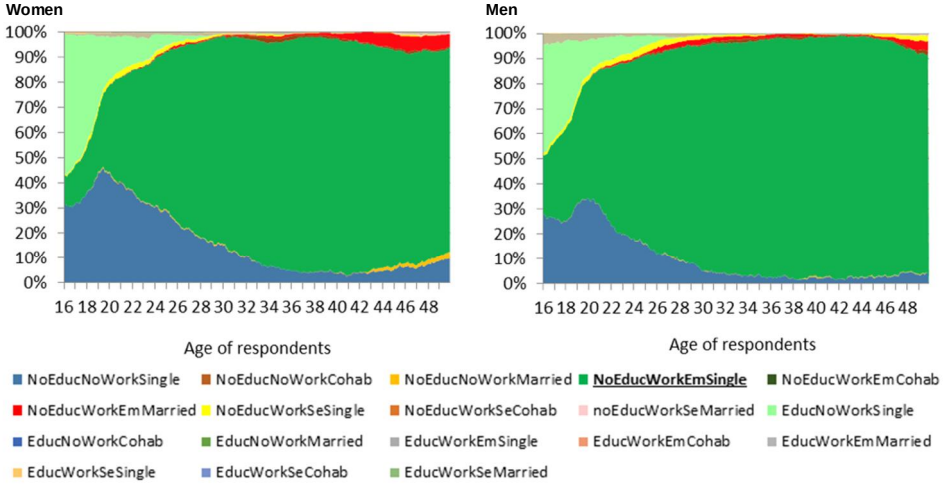
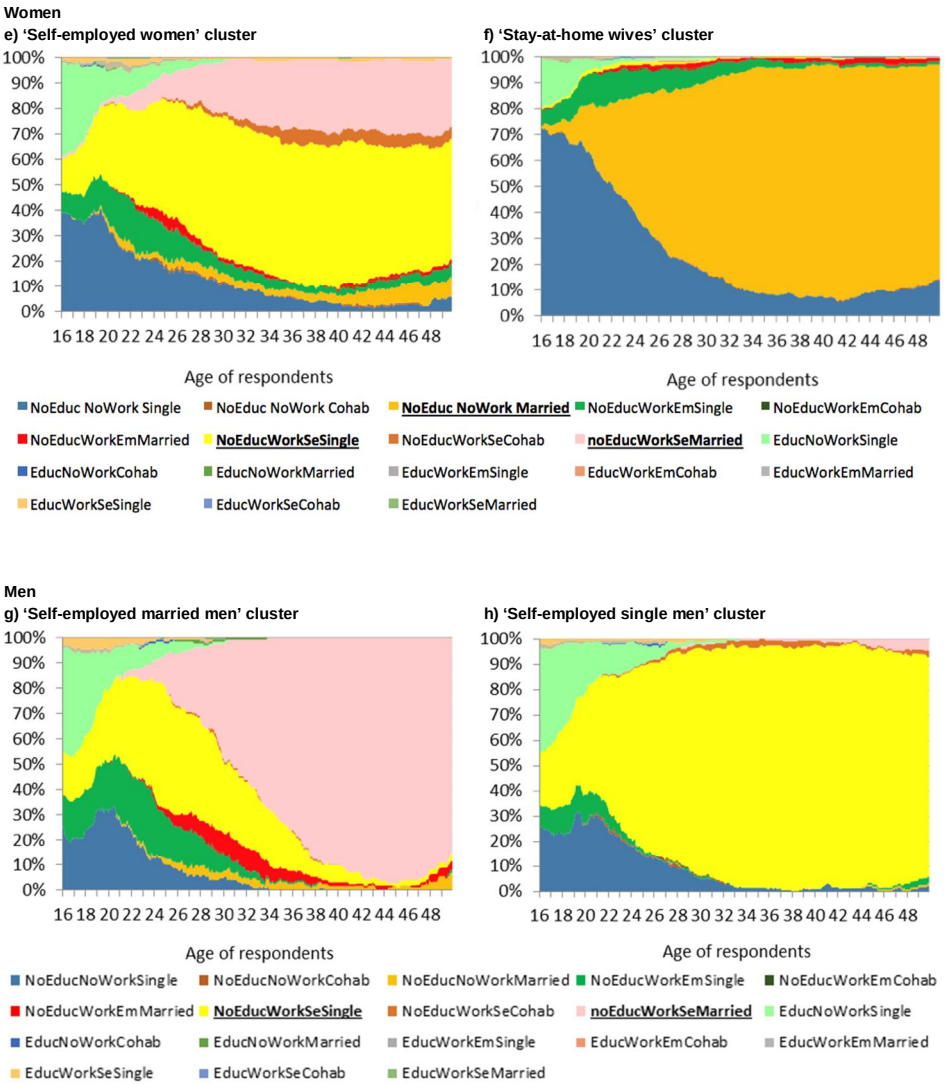


Figure 1: (Continued)



Source: Own elaboration on FSS 2009 data.
Note: State distribution plot shows the share of women/men in any given state over time. Changes of state are shown by changes of colour. The percentage of women/men in each state is reported on the y-axis, whereas time (expressed in women's or men's age) is reported on the x-axis. The most relevant states of each cluster are underscored in the corresponding legend.

Considering how the results vary between cohorts adds interesting information. Of the four profiles common to both genders, 'employed single' was the most common for both women and men, accounting for 33%–35% of the childless sample (see Table 3). The size of the 'employed single' and 'highly educated; unstable employment and partnership' clusters increased across generations. The proportion of childless women in the 'employed married' and 'disadvantaged' clusters was fairly stable across cohorts, but the proportions of 'employed married' and 'disadvantaged' childless men decreased and increased respectively across cohorts. Finally, the 'stay-at-home wives' cluster was the only gender-specific cluster, representing the most traditional woman's role, that of homemaker. This profile was more prevalent in the older cohorts, with younger generations of women being more likely to participate in the labour market.

Table 3: Distribution of childless women and men by cluster and birth cohort, absolute and percentage values

Cluster	Childless women			Childless men		
	1907–1944 (%)	1945–1959 (%)	1960–1969 (%)	1907–1944 (%)	1945–1959 (%)	1960–1969 (%)
Disadvantaged	115 (17.5)	77 (15.9)	100 (18.3)	29 (6.9)	51 (9.2)	73 (9.7)
Highly educated; unstable employment and partnership	31 (4.7)	46 (9.5)	88 (16.1)	50 (11.9)	96 (17.4)	177 (23.5)
Employed married	76 (11.6)	82 (17.0)	53 (9.7)	111 (26.4)	105 (19.0)	97 (12.9)
Employed single	185 (28.1)	172 (35.6)	192 (35.2)	122 (29.0)	211 (38.2)	272 (36.1)
Self-employed women	95 (14.4)	33 (6.8)	67 (12.3)	–	–	–
Self-employed married men	–	–	–	53 (12.6)	34 (6.1)	43 (5.7)
Self-employed single men	–	–	–	55 (13.1)	56 (10.1)	92 (12.2)
Stay-at-home wives	156 (23.7)	73 (15.1)	46 (8.4)	–	–	–
Total	**658 (100)**	**483 (100)**	**546 (100)**	**420 (100)**	**553 (100)**	**754 (100)**

Source: Own elaboration on FSS 2009 data.

Two remarks need to be made about the partnership and employment life course trajectories. First, the proportion of childless men who were single was higher in the younger cohorts, but the proportion of childless women who were single remained stable (see Table 4). Second, labour market involvement, particularly as employees, was markedly higher amongst the younger cohorts of childless women but remained stable across cohorts in men (see Table 4).

Table 4: Descriptive information on childless women and men by cohort at 40 years old

a) Women

Cohort		1907–1944 v.a. (%)	1945–1959 v.a. (%)	1960–1969 v.a. (%)
Union	Never in a union	349 (53.0)	247 (51.1)	303 (55.5)
	Single	377 (57.3)	291 (60.3)	362 (66.3)
	Married	272 (41.3)	170 (35.2)	158 (28.9)
	Cohabiting	9 (1.4)	22 (4.6)	26 (4.8)
Education	With primary education	439 (66.7)	114 (23.6)	32 (5.9)
	With secondary education	194 (29.5)	313 (64.8)	441 (80.8)
	With tertiary education	25 (3.8)	56 (11.6)	73 (13.4)
Employment	Never worked	228 (34.7)	117 (24.2)	96 (17.6)
	Not working	288 (43.8)	171 (35.4)	153 (28.0)
	Employee	280 (43.8)	278 (57.6)	325 (59.5)
	Self-employed	90 (13.7)	34 (7.0)	68 (12.5)

b) Men

Cohort		1907–1944 v.a. (%)	1945–1959 v.a. (%)	1960–1969 v.a. (%)
Union	Never in a union	228 (54.3)	336 (60.7)	476 (63.1)
	Single	242 (57.6)	383 (69.3)	552 (73.2)
	Married	175 (41.7)	146 (26.4)	163 (21.6)
	Cohabiting	3 (0.7)	24 (4.3)	39 (5.2)
Education	With primary education	262 (62.4)	122 (22.1)	59 (7.8)
	With secondary education	131 (31.2)	382 (69.1)	630 (83.6)
	With tertiary education	27 (6.4)	49 (8.9)	65 (8.6)
Employment	Never worked	38 (9.1)	43 (7.8)	61 (8.1)
	Not working	54 (12.9)	86 (15.6)	119 (15.8)
	Employee	245 (58.3)	348 (62.9)	446 (59.2)
	Self-employed	121 (28.8)	119 (21.5)	189 (25.1)

Source: Own elaboration on FSS 2009 data.

4. Conclusions and discussion

Many studies have emphasised that there are numerous paths leading to childlessness, but most look only at women: there has been very little research on the profiles of childless men. This study adds to existing knowledge because it considers both women and men in Italy without children and looks at gender and generational differences. The sequence analysis of the trajectories of three variables, education, employment, and partnership, revealed six different profiles of childlessness for both women and men, illustrating the marked heterogeneity of the childless universe.

Childlessness does not appear to be uniquely a characteristic of highly educated women with a strong professional orientation (Miettinen et al. 2015): the six profiles show that the childless universe also contains women with little education and highly educated men (Rotkirch and Miettinen 2017). As higher education has become more prevalent the reproductive behaviour of highly educated women has become less differentiated from that of less-educated women (Burkimsher and Zeman 2017). Not having a partner plays a key role in being childless in all birth cohorts (Berrington 2017; Jalovaara and Fasang 2017; Rotkirch and Miettinen 2017). Furthermore, single status is more common in the youngest cohorts of childless people, especially childless men (Köppen, Mazuy, and Toulemon 2017). Finally, the findings show that childless women – particularly those in the youngest cohort – are more likely to participate in the labour market, whereas the opposite holds for childless men. These results confirm earlier findings on childless men (Keizer, Dykstra, and Poortman 2010; Parr 2010), but in the case of women they show that there is a negative relationship between employment and childbearing. Looking at 60 birth cohorts, this finding is not surprising, especially in a country with traditional attitudes to female employment and male involvement in care, and inadequate support for families, which makes it more difficult for women to fulfil a dual role as earner and carer (Matysiak and Vignoli 2013). Future research should investigate whether this pattern changes as the gender revolution progresses and female participation in the labour market becomes more widespread and more accepted and male involvement in the domestic sphere increases (Goldscheider, Bernhardt, and Lappegård 2015).

Older cohorts are overrepresented in the more traditional clusters, such as 'stay-at-home wives' and 'employed married men', which are the two roles underpinning the male breadwinner model. In these clusters there are no obvious social or economic barriers to childbearing, so fecundity problems are the most plausible reason for their childlessness. The younger cohorts are also overrepresented in some clusters. For both women and men, prolonged education and unstable employment trajectory are important factors in childlessness, but this is especially true for the youngest cohort, which may be a reflection of recent developments in the labour market where fragmented work histories have become more common. The state of the labour market, together with later entry into both cohabitation and marriage partnership in this group, is in line with both theoretical explanations and previous empirical findings that highlight how employment uncertainty delays marriage and favours cohabitation (Mills and Blossfeld 2013; Oppenheimer 1988; Vignoli, Tocchioni, and Salvini 2016), as well as causing postponement of childbearing (Barbieri et al. 2015; Pailhé and Solaz 2012) and thus possibly limiting fertility outcomes.

From a gender perspective, single men with low socioeconomic resources are overrepresented in the youngest generation's profile: in times of economic uncertainty,

unfavourable economic conditions act to the detriment of union formation, thus favouring childlessness. This result is in line with findings for other Western European countries (Jalovaara 2012). However, in Italy the effect seems stronger for men than for women, perhaps due to men's central position in the family.

Unfortunately, I could not investigate some of the individual factors that may be relevant to childlessness and might produce other clustering patterns – for example, fecundity problems of one or both partners, economic and housing conditions, and information about living apart together (LAT) relationships over the life course – as data on these variables is only available at one time-point, the date of interview. An important challenge for the years to come is to address data limitations and investigate the childless universe in more depth.

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