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May I have this dance? Dance participation and attendance in Denmark

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ABSTRACT

Although dancing is considered to be an important arts form, and is associated with various positive externalities, our understanding of the profiles of dancers and dance audiences are limited. We address the gap in the literature by exploiting survey data on cultural preferences and habits in Denmark for 2004. Our approach has allowed us to identify the socio-economic background of dancers, as well as their involvement in other cultural activities. Among other factors, we note that dancers are more frequent attendees at dance performances, than non-dancers; that they have typically lower incomes and tend to read more, play more video games and visit art exhibits more often. We are further able to separate the sample of dancers in relation to various types of dance practised, allowing us to provide insights on the differences between them.

KEYWORDS

Dance; cultural preferences; welfare; competitiveness

JEL CLASSIFICATION

Z11; Z20; A12; I31

Introduction

Dancing careers are highly competitive. The intense competition, the lack of job opportunities, inherent expense of costumes and training, and the high risk of injuries mean that few dancers succeed in their chosen profession. However, dancing has positive externalities: various socio-economic and health benefits are experienced by those who practice dance non-professionally. Amateur dancing contributes to lowering stress and tension levels and provides a platform for people to express themselves in completely different ways. Dancing contributes to high levels of happiness, social inclusion, and better ageing (Skinner, 2013), as well as physical and mental health (Ravelin, Kylmä, & Korhonen, 2006). Dance education has a positive effect on fitness and gross motor development (Ross & Butterfield, 1989). It contributes to cultural events (Nicolau, 2010) and, in particular, traditional dances such as flamenco (Aoyama, 2009) and Tanzanian traditional dance (Bagashi & Michapondwa, 2009; Rävar & Mahika, 2013), which boost tourism.
Despite that importance, very little is known about dancers’ profiles. In this study, we draw on data from a survey on cultural preferences and habits, conducted in Denmark in 2004, to reveal information about the background of dancers and dance audiences. Denmark is a particularly good focus for our research purposes, partly because of the superior data available, but also because of the nature of the cultural engagement of its population. According to Eurostat (2011), in 2006, Denmark, and the other Nordic countries, accounted for the highest rates of attendance at performing arts and visits to cultural sites, as well the cinema. Perhaps not surprisingly, Nordic countries repeatedly rank as some of the happiest countries in the world. Whilst we do not claim causal relationships, there is a very strong positive correlation between cultural participation and the well-being of a society.

Figure 1 shows an illustration of the association between the percentage of persons who have attended a live performance at least once in the last 12 months (Eurostat, 2011) and the HPI well-being index (the Happy Planet Index as in Abdallah, Michaelson, Shah, Stoll, & Marks, 2012). The emerging correlation is equal to 0.64 and statistically significant. At the top of the distribution are the five Nordic countries, with Denmark having obtained the highest well-being index. A very similar picture can be obtained using other measures. For example, a significant and positive correlation of 0.36 exists also between performing arts’ attendance and life expectancy.

There are several, possibly reinforcing reasons for this association. Dance is believed to be conducive to physical and mental health (e.g. Ravelin et al., 2006), which likely resonates in greater well-being, since healthy people are in general happier (e.g. Dolan, Peasgood, & White, 2008). Furthermore, dance is for some people a leisure activity and leisure is defined as the production and consumption of pleasant experiences (Ateca-Amestoy, 2011). Last but not least, dance is an art form, which allows for self-expression and creative unfolding, and hence may be related to happiness in line with research on happiness and cultural involvement (e.g. Ateca-Amestoy, Gerstenblüth, Mussio, & Rossi, 2016).

Figure 1. Well-being and attendance at performing arts in Europe.
The economic literature on dance is rather limited. The attendance at dance events is examined by Schimmelpfennig (1997) who uses data on 16 performances by the UK Royal Ballet and finds that ballet demand is significantly decreasing. Seaman (2003) provides a more general debate on cultural versus sports economics, and elaborates on the relationship between the two. A more developed research strand exists in relation to cultural attendance in general. Borgonovi (2004) makes use of US survey data and finds, among others, that arts participation is highly correlated with arts education, but not with prices or geographical concentration.

The market segments for theatre demand are studied by Ateca-Amestoy (2008), who exploit a large survey on US theatres, whilst another study by Grisolia and Willis (2012) uses data from a survey implemented in a regional theatre in the UK. Palma, Luis, and Aguado (2013) examine attendance at the spring “fiestas” in Seville, which is shown to be correlated with knowledge, institutional links, past experience and the perceived benefits of these events. Montgomery and Robinson (2003) and Tobias (2004) draw on US and German survey data, respectively, and show very low returns with respect to dance, in particular low employment.

Finally, Cheng and Wen (2011, 2013) examine Taiwanese performing arts survey data. The authors find that the audiences of traditional theatre are different from those of other performing arts and that there exists a strong correlation between dance and music.

In this article, we are able to shed light on the socio-economic background of dancers in Denmark in 2004, and provide unique insights on their involvement in other cultural activities. Further, we are able to disentangle the sample of dancers into various types of dances, allowing so novel insights on the differences across both professional and amateur dancers.

In the next section, the data set is described. In Section 3 we present and discuss various patterns related to the profile of dancers and dance audiences. Section 4 offers some concluding remarks.

Data

The dataset used in this analysis is part of the survey on the cultural preferences and habits of adults in Denmark (Bille, Fridberg, Storgaard, & Wulff, 2004), conducted between May and August 2004, via a combination of postal, phone and web-based surveys. Whilst the survey was sent to a random sample of 2888 adults (ages 16–91) registered in the Danish Central Person Register, only 1830 individuals made returns. Although the overall sample size is large, a bias may exist in the sense that the sample may not accurately represent the population of adults in Denmark. Those who chose to answer the survey may be, for example, particularly interested in cultural activities or have more free time than the average Dane. Such a bias is typical for any quantitative research using survey data and has to be taken into consideration when interpreting the results.

The survey includes several questions regarding dance activities as well as a wide range of background variables, such as age, income and occupation. The variety of socio-economic indicators was unfortunately not been repeated in the later survey of 2012. Consequently our data here is based on the 2004 questionnaire. The sample is slightly skewed towards female respondents (60%) and the average age of respondents is 45 years.
We identify dancers as those who responded positively to the question “Do you go dancing/do you dance?” This accounted for 8.1% of the individuals who responded to this question (132 out of 1756 respondents). The respondents were also asked to provide further information on the type of dance they practise, or about the nature of their dance activities. Twenty individuals reported participating dance performances, 27 were in a dance group and 49 participated in dance training.

Unfortunately, we cannot disentangle professional from non-professional dancers and the possibility of a resultant bias is taken into account in the interpretation of the results. It is worth noting that amateur dancing is often organized by freelance professional dance teachers, rather than specialized dance schools. This particularly applies to such types of dance as salsa and folk, which are generally socially oriented and for which demand is more elastic. More structured forms of dance, including ballet, are regarded as more academic and the goal tends to be progression through different levels as indicated by examination.

Data analysis

Type of occupation and dance

The survey provides two different approaches to measuring the level of interest people have in dance and the performing arts over the previous 12 months. First, it provides information regarding expenditure on performing arts tickets. This covers spending on both dance and other performing arts, but provides the most detailed data available. All the respondents incurred some form of expenditure on performing arts tickets. However, the majority (77%) reported spending less than Kr.500 (less than approximately €70), which is the lowest positive category. Thirteen per cent of the respondents spent between Kr.500 and 999, 7% spent Kr.1000 and 1999, and the remaining 3% spent more than Kr.2000. Second, the survey measures the attendance rate at ballet and dance performances. This is measured by means of a discrete ordinal variable, which comes on a four point scale (as in “not at all”, “1–2 times”, “2–5 times” and “6 or more times”).

Table 1 summarizes the variables introduced for dancers and non-dancers. Not surprisingly, people who dance exhibit around twice as high a frequency for attendance at ballet and dance performances. This difference is statistically significant (p-value < .01). But, people who dance spent somewhat less on theatrical performances than those who do not dance, with the difference being just on the border of the 90% confidence interval. As we shall see later, dancers earn typically less than non-dancers, which could possibly

<p>| Table 1. Dance attendance and performing arts expenditure for dancers and non-dancers. |
|-----------------------------------|-----------------------------------|-----------------------------------|
| Dance attendance (0–3) | Performing arts expenditure (1–7) |</p>
<table>
<thead>
<tr>
<th>Obs.</th>
<th>Mean</th>
<th>Std. err.</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire sample</td>
<td>578</td>
<td>0.28</td>
<td>(0.02)</td>
<td>1549</td>
<td>1.37</td>
</tr>
<tr>
<td>Dancer</td>
<td>40</td>
<td>0.48</td>
<td>(0.11)</td>
<td>118</td>
<td>1.28</td>
</tr>
<tr>
<td>Non-dancer</td>
<td>538</td>
<td>0.27</td>
<td>(0.02)</td>
<td>1431</td>
<td>1.38</td>
</tr>
<tr>
<td>Difference</td>
<td>0.21***</td>
<td>(0.09)</td>
<td>0.10*</td>
<td>(0.07)</td>
<td></td>
</tr>
</tbody>
</table>

Note: *** and * indicate estimates that are significantly different from zero at 99% and 90% confidence intervals, respectively.
explain this difference. We cannot, unfortunately, measure the effect of dancers’ personal connections in relation to their receiving discounted or free tickets.

Figure 2 presents the available information for expenditure on performing arts tickets and attendance rates at ballet and dance performances, in relation to the type of occupation of the respondents.

Decisions to attend ballet and dance performances, and how much to spend on tickets are not made randomly. For this reason, we estimate the determinants of these two variables using an ordinary least squares (OLS) regression. In column 1 of Table 2, the dependent variable is the attendance rate, which is a categorical variable as described above. In column 2 of the same table, the dependent variable is the expenditure in performing arts attendance, which is also a categorical variable. The independent (dummy) variables are disaggregated employment categories, in terms of the type of occupation of the respondents.

Borgonovi (2012) finds that arts education is highly correlated with arts participation, but not with attendance. The results show that in this survey, dancers are the most likely to attend. They are commonly classified as skilled workers (see dummy variables “dance” and “unskilled_worker” in column 1). The analysis also suggests that they are often students, although this result is not statistically significant. They are not necessarily individuals with dance education. In fact, the correlation between dance training and attendance is 13%, whereas the correlation between dance training and dance participation is 69%, in line with Borgonovi’s result.

Figure 2 shows that among those who do not dance, the retired or self-employed are not likely to attend dance performances. Interestingly, dancers in these two categories report lower attendances. Overall, retired individuals and students attend more dance performances. Perhaps this is due to having more free time and discounted tickets.

Figure 2. Expenditure on performing arts and attendance at dance performances.
Expenditure on performing arts is in general highest for civil servants and lowest for unskilled individuals (see dummy variables “civil_servant” and “unskilled_worker” in column 2). In addition, the analysis shows that, in the sub-sample of dancers, skilled workers, followed by civil servants, are those who report the highest levels of expenditure, whereas those who are self-employed and unskilled workers report the lowest.

Cheng and Wen (2011) show that theatre audiences are different to those of other performing arts. This may partly explain the difference between ballet and dance performance attendance and performing arts expenditure in general. The number of theatre plays may be a contributing factor, but these data are unfortunately unavailable. Furthermore, little is known about seating preferences. It may be that civil servants attend less plays but purchase better seats in the theatre, whereas it seems likely that students who pay at discounted prices, attend more plays but at a lower cost.

**Dance types, expenditure and income**

The most popular dance type reported is sport-related dance (43 respondents), followed by folk (33), modern dance (18), hip-hop (8) and ballet (4). In the male category, the most reported dance types are sport and other types of dance; the least reported, modern dance and salsa.

Figure 3 presents dance types in terms of average income, mean theatre expenses and mean attendance at dance performances. Income is measured with a discrete ordinal variable which comes on an eight point scale (beginning with “below Kr.300.000” and then increasing for each interval by Kr.100.000 up to the category of “over Kr.900.000”). The mean income category is equal to 2.43 and is based on 1549 observations. Individuals with a higher average income were more frequent dancers.
of salsa, ballet and hip-hop, while those with the lowest average income practice modern and sport-related dance.

Ballet dancers attend more dance performances and have higher theatre expenditure, followed by salsa dancers. These findings are likely to be correlated with the level of income. Individuals who dance folk and modern dance attend less dance performances and exhibit the lowest mean theatre expenditure.

**Figure 3.** Income, dance attendance and performing arts expenditure by types of dance. *Income categories: <Kr300.000, Kr300.000–400.000, ..., Kr400.000–900.000, >Kr900.000. Performing arts expenditure categories: <Kr.500, Kr.500–999, Kr.1000–1999, >Kr.2000. Dance performance attendance categories: 0, 1–2, 2–5, 6+ times.*

**Figure 4.** Income distribution by gender, for dancers and non-dancers. *Income categories: <Kr300.000, Kr300.000–400.000, ..., Kr400.000–900.000, >Kr900.000.*
Figure 4 depicts box plots of income across gender for dancers and non-dancers. The graph is based on 1100 female and 730 male respondents, of whom 92 and 40, respectively, dance. Individuals who dance have statistically significant lower income. Montgomery and Robinson (2003) and Tobias (2004) not only show low returns to dance, including employment perspectives, but a considerable number of potential economic variables (number of artists per dance group, mean fees and group expenses, other artistic staff and other expenses in technical staff and stage equipment). Our study bears some similarities in that the set of dancers we observed may belong to a lower income group of professional or semi-professional dancers.

The age effect

Figure 5 shows box plots for age across gender for dancers and non-dancers. Half the population of dancers is over 40 years of age. Both genders, but particularly older males, dance relatively more than younger people. The mean age difference between dancers and non-dancers is 4.9 years and is statistically significant. This insight may partly explain the previously observed patterns of lower incomes for dancers. Since a high proportion of dancers are people at retirement age, these may have lower incomes in general than those in employment.

To further investigate the effect of age on dance activities, Figure 6 shows the mean respondents’ age per dance style. The majority of the older age groups practice folk dance. Danish folklore is embedded in the country’s culture and folk dancing, which dates back to the early twentieth century, is part of the national heritage. According to The National Association of Danish Folk Dancers (2014), in 2011, there were 12,000 active folk dancers affiliated to 219 clubs in Denmark. The second highest mean age is sport-related dance, which includes activities such as aerobics and Zumba, which are growing in popularity. The most common dance types amongst the younger generation are ballet and hip-hop. This could be a result of a higher demand for a degree of

Figure 5. Age distribution by gender, for dancers and non-dancers.
fitness, as well as, in the case of hip-hop, a reflection of music tastes. The participation of the young in ballet has to be interpreted with caution, as the average age is based only on a small number of observations.

Figure 6 shows the relationship between attendance at ballet performances or expenditure on the performing arts and age. Correlations between either pairs of variables are

![Figure 6](image1)

**Figure 6.** Mean age by dance type.

Figure 7 shows the relationship between attendance at ballet performances or expenditure on the performing arts and age. Correlations between either pairs of variables are

![Figure 7](image2)

**Figure 7.** Dance attendance and performing arts expenditure by age. *Performing arts expenditure categories:* <Kr.500, Kr.500–999, Kr.1000–1999, >Kr.2000. *Dance performance attendance categories:* 0, 1–2, 2–5, 6+ times.
positive and statistically significant. They imply that ballet attendance increases with age ($p$-value $\approx .05$), as well as the overall expenditure for the performing arts ($p$-value $<.01$).

**Dancing and other cultural consumptions**

Figure 8 shows some stylized differences between those who dance and those who do not with respect to the consumption of other cultural goods. Dancers read more books, especially at the weekend, revealing a highly significant difference ($p$-value $<.01$). Those who dance also play more video games than non-dancers – a difference which is, again, statistically significant ($p$-value $<.01$). This is also consistent with Borowiecki and Prieto-Rodriguez (2015, in press) insights and those of Borowiecki and Bakhshi (2017) on the complementarity between video games playing and various cultural engagements.

Finally, dancers are more frequent visitors to both art galleries and art exhibitions, although these differences are marginally outside the usual confidence intervals ($p$-value $.14$). They use the internet significantly less than non-dancers ($p$-value $<.01$), which could be associated with their typically higher age and dedicate less time to listening to music, albeit that is not statistically significant.

It has to be noted that these results are exploratory and have to be interpreted with some care, especially since age differences are likely related to both dancing and other cultural consumptions.

**Conclusions**

Dancers, teachers, choreographers, technicians and managers are all involved in the labour market. Nevertheless, many other individuals dance as a hobby, or in relation to a second job. TV shows such as *Strictly Come Dancing* and *So You Think You Can Dance* have helped to markedly increase dance audiences. Dancing is becoming increasingly popular as a leisure time activity.
This study, which draws on a database of cultural preferences and habits in Denmark for 2004, considers the profiles of dancers and dance audiences, thereby deepening the current knowledge on the dance market.

The most popular types of dance are sport/ballroom and folk dance; the least favourite, hip-hop and ballet, are performed by the younger generation. Folk is preferred by the older generation, and appears to be very popular in Denmark. Those with the highest income are more likely to practice salsa, hip-hop and ballet; poorer groups mostly choose sport/ballroom and modern dance. Older and poorer individuals dance considerably more. Dancers read significantly more, play more video games and are more frequent visitors to art galleries and exhibitions than non-dancers. Non-dancers spend more time on the internet.

Individuals with dance training are more likely to participate in dance classes, socials and/or performances, but only 13% actually attend performances. Perhaps not surprisingly, dancers (regardless of dance training) are the most assiduous dance audience. They are typically skilled workers, students and civil servants. The dancers who attend dance performances and plays tend to practice ballet, hip-hop and salsa, whereas those whose preference is for modern and folk dance appear to avail themselves less of the performing arts.

The survey provides unique information about individuals’ dance practices, types of dances and reveals their interest in other cultural engagements. But, the detail is relatively thin with respect to some types of dance. This decreases the statistical reliability of the survey in certain cases. Some of the findings have to be interpreted carefully.

The reasons for peoples’ decision to attend a dance performance or a theatre play are not explored in the survey, but may serve to justify some of the patterns discussed. Some individuals may be interested in intellectual or emotional stimulation; others may simply wish to use performing arts as a way of socializing. Overall, the findings might reflect the fact that dance performances are particularly attractive to those with more free time, or who can purchase tickets at a reduced price. Since low attendance rates make it harder for dancers and dance companies to be sustainable, increasing dance attendance is important. Activities that might contribute to increasing or maintaining attendance rates include open rehearsals, heterogeneous pricing policies which allow for discounted ticket prices, special family or season packages. Furthermore, although dancers are typically interested in attendance at the performing arts, they usually have limited purchasing ability due to their low incomes. In that case, the introduction of special deals for dance schools might constitute another supportive policy. Finally, as Bakshi and Throsby (2014) reveal, the availability of digital technologies and provision of online and digital access to dance performances might positively impact attendance rates and might encourage increased physical attendance. Another way to stimulate dance audiences may be via fiscal discounts or subsidies Borowiecki & Navarrete, 2015, or Borowiecki, Navarrete, & Duggan, 2016), particularly since dancing comes with a positive externality.

Notes

1. See Montgomery and Robinson (2003) for an analysis of earnings and work conditions of dancers, where it is shown that the returns to dance are small and that many dancers have a second job to increase their income. The shortage of jobs and low incomes of dancers
and the lack of funding available to dance companies, as well as their dependence on the state of the economy have been also discussed by Janaki (2012), Hagoort (2003) and Tobias (2004).

2. According to the World Happiness Report (2013), Denmark is ranked first in terms of overall well-being. The Legatum Prosperity Index ranked Denmark second in 2013 in prosperity and this is for the fourth consecutive year (Forbes, 2013).

3. There exist an interdisciplinary range of studies focusing on the presentation of descriptive studies dedicated to a specific type of dance or a specific topic related to dance. Villella (1994) describes the evolution of classical and folk dance. The modernity of choreographies in East Asia is described by Colome (2005), Swartz (2007) looks at championships in highland dance and Pilcher (2012) describes the issues related to erotic dance.

4. See Bochenek (2013) for a broader analysis of folk dancers, involving 259 individuals in 12 countries across the world.

References


