

# **CONNECTING THE ECONOMICS OF ART AND CULTURE WITH THE ECONOMICS OF SPORT**

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**KEYNOTE PRESENTATION**

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GOAL: 35-40 minutes; 15-20 minutes Rob Simmons Commentary; Quick Questions/Comments

# Efforts to Pretend that Sports are not Vital Elements of Culture are Useless: Need we say it: FIFA World Cup; South African Springboks 1995 Rugby World Cup Victory

The World Through Soccer: The Cultural Impact of a Global Sport

Author: Tamir Bar-On, published 2014

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The Politics and Culture of Modern Sports

Author: Sheldon Anderson, published 2015

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**Upcoming Panel 1: Sport 4.0: The Culture of Sport**



Edited by SANDRA SPICKARD PRETTYMAN  
and BRIAN LAMPMAN

# LEARNING CULTURE THROUGH SPORTS

Perspectives on Society and Organized Sports  
Second Edition



### In Some Cases Sport without Artistic/Cultural Links to Music or Dance Is Hard to Imagine

- Is a Liverpool F.C. match authentic without the nearly tearful, swaying, mass singing of You'll Never Walk Alone?
- Can any international Rugby match involving the New Zealand All Blacks every be played without the Haka War Dance?
- And I know you'll join me in singing (depending on allegiance) one of those great Aussie Rules Football songs "It's a Grand Old Flag," or "Join in the Chorus!" to support your favorite Melbourne team.
- OK, no divisions here: We can just agree to sing "I Wanna Be a Wallaby." I want, I wanna be a Wallaby... And some of our upcoming panelists can help us sing the Cricket anthem "Under the Southern Cross I Stand."

But this is actually serious academic stuff. Dave Russell in the Department of Cultural Studies at Leeds Metropolitan University, published a paper in *Sport in Society*, 17(3) 2014: "See, the conquering hero comes! Sound the trumpets, beat the drums: music and sport in England 1880-1939." In it, he argues:

"Sport formed a common topic within commercial popular music, especially the music hall, a reflection both of sport's central position within society and the music industry's acute understanding that engagement with it generated a sense of modernity. The presence of sportsmen as popular entertainers also helped cement this relationship... [music in sport] was useful for fundraising and as a vehicle for the entertainment and self-entertainment of spectators and has served as a significant force in the construction and articulation of a variety of self and collective identities... In comparison with the period from the late 20<sup>th</sup> century, the relationship between music and sport was largely natural and unforced and showed relatively little of the self-consciousness that so typifies much recent practice. **Sport and music did not so much 'crossover' as draw from a common cultural pool.**" [emphasis added]

## Fields of Visions Sports/Arts Initiative

*Sport in Society* published a special issue (2018) regarding the interrelationships between sport and the arts (not between sport and culture), which arose from the UK “The Fields of Vision Sports/Arts Initiative.” In the introduction to that issue, Jonathan Long and Doug Sandle cite Stephen Mumford from his 2011 book *Watching Sport: Aesthetics, Ethics and Emotions* (Routledge) for his view that sport cannot be an art as such, but that he argues for “the special nature of the sporting aesthetic.”

Although sports aim to compete and not generate aesthetic value, such competition is part of its aesthetics. Mumford’s three key features of sport: competition, indeterminism and “emergent holism in relation to team sports” (Long and Sandle, p. 3) might be seen in some form in the arts, the authors characterize Mumford as believing that “the distinctiveness of sport and the arts resides in their being subject to different historically evolving institutional processes” (p. 3).

Long and Sandle conclude that discussion: “While sport may not be an ‘art,’ nonetheless it does have a special and distinctive aesthetic role, providing an experience for the viewer that cannot be found elsewhere.”

## Further Brief Considerations Regarding Definitions and Optimal Scope of Analysis

It is no surprise that sports can be cultural goods without necessarily being artistic goods.

Throsby in *Economics and Culture* (2001) views artistic goods as subsets of cultural goods, with creative goods involving creativity in their production, generating symbolic meaning, and potentially being intellectual property.

Roger McCain observes in Vol. I of the Ginsburgh/Throsby *Handbook* (2006), "Defining Cultural and Artistic Goods" (Ch. 5) that "not all cultural goods are artistic," citing Arjo Klamer's windmills, and his own covered bridges as examples (p. 155).

The 2<sup>nd</sup> Volume of *Handbook of the Economics of Art and Culture* (2014, North Holland) expanded the scope of the field notably, but did not act upon Throsby's observation in the Introduction to Volume I that

"An extension of the concept of culture further into popular culture ... would open up the economics of sport and a wider range of media issues..."

And in a different context he has conceded that

"... while sport does not quite qualify as a cultural activity, it is an element of the culture more broadly defined, since it is a ritual or custom expressing shared values, and a means of affirming and consolidating group identity."

In *The Economics of the Performing Arts* (1979), David Throsby and Glenn Withers, excluded "processions, circuses and sporting events" based on distinguishing demand and supply considerations, but their list of supply factors suggests many similarities:

- (1) liveness;
- (2) joint audience-performer presence;
- (3) concern for the skilled presentation of created works;
- (4) labor as the essential input in to the final product; and (5) skills include 'innate ability, talent, experience, training and a host of intangible qualities only a small proportion of the population possesses or feels able to develop or exercise."

## More Scope Issues

Tyler Cowen (*In Praise of Commercial Culture*, 1998) conceded the clear connection: “Sports mix entertainment with live drama and a smattering of performance art and dance... creating real drama with fame, money and ego on the line.” He continues: “While sports do not qualify as art in the narrow sense, they provide a commonly observed stage to a world of many diverse and specialized performances.” A decade later, in his Keynote Address to the 2008 ACEI Conference in Boston, he cited the ongoing digital revolution as dramatically changing the economics of culture to such an extent that “all distinctions as to ‘what is culture’ are almost completely blurred” (*JCE* 32(4), 264).

In a special issue (*Sport in Society*, 2018) dealing with the interrelationships between sport and the arts, Stephen Mumford addresses “The aesthetics of sport and the arts: competing and complementary.”

And with the intellectual effort to develop expanded theories of value not limited by either neoclassical economics or “the art and commerce” approach, any pretense to exclude sports as cultural goods became nearly impossible since cultural goods were characterized as “symbolic goods with relations to the identity of people” (Dekker, *JCE*, 2015).

Sports economics has had its own more narrow definitional and scope issues, beginning with a focus on North American baseball, but expanding to all international team sports, as well as individual sports. Sports versus games was not always clear, as was sports economics versus sports management and finance, and sports economics versus purely statistical descriptions of sports activities.

Regardless of definition, there have been notable “cross-over” efforts, although genuine integration has been fairly limited.

1. Roberto Zanola regularly includes sports papers in his NEP-CUL postings (about 30 total, averaging 3 per year since 2008) among research of interest to arts/cultural economists in “New Economics Papers” (NEP is sponsored by the Economics Department at the University of Auckland);
2. A recent special issue on the interrelationships between sport and the arts in *Sports and Society* was discussed above.
3. There is an upcoming October 2018 Gijon Conference on the Economics of Leisure, Culture and Sport.
4. A serious effort was made in Slovenia (thanks to Andrej Srakar) to sponsor a similar conference (ultimately unsuccessful in generating genuinely integrative papers).
5. And even small examples can be cited such as the change in the name of the Sports, Science and Society minor field of study at Stonehill College in Massachusetts to Sport, Commerce and Culture. I was invited to guest lecture in one of their sports economics classes specifically on the issue of arts, culture and sports (prior to a friendly public debate (2<sup>nd</sup> in a “series”) with prominent sports economist Victor Matheson on the economics of public support for sports stadiums/arenas).
6. There have indeed been some integrative studies regarding arts and sports, mostly dealing with the issue of whether participation in arts and in sports are substitutes or complements, with participation sometimes defined as “active” engagement in sporting and artistic activities, and sometimes as “passive” participation as spectators. Of special note is that one of these papers appeared in the *International Journal of Sports Finance* (2011), during the period that Rob Simmons was co-editor of that journal, and another in the *Journal of Cultural Economics* (2017). These are discussed below.



One Example of “Equal Time:” Handbook of the Economics of Leisure; Samuel Cameron 2011, Elgar

## Examples of Index Citations to Sports

- Attendance
- Australian Rules Football (entire chapter)
- Career Progression
- Competition, Role in
- Conspicuous Consumption
- Cricket (entire chapter linked to 20 Cricket)
- Leisure Satisfaction
- Positive Addiction
- Social/Leisure Networks
- Social/Class Status
- Work-life Balance

## Examples of Index Citations to Culture

Cultural Capital; and in UK

Cinema (many cites linked to 3 chapters)

Difficulties with Definition

Impact on Fertility

Impact on Leisure Activities

American, European, Differences in

And Life Satisfaction

Music Festivals as Cultural Activity (entire chapter)

Work-life Choices

**Footnote: Alan Collins wrote: Sexual Leisure Markets**

**Sam Cameron wrote: The Economics of Sleep and Boredom**

## The Argument in Brief

1. The separate development of arts and cultural economics and sports economics has been understandable professionally, even if efforts to distinguish artists and athletes, and sports and the arts have often been strained. No one wants to return to the pre-Z JEL code era when both the arts and sports were hidden away in broader categories.

2. Each area of research has been fighting their own battles for legitimacy and influence, expanding their scope and improving the theoretical and empirical tools being applied, without seeing clear advantages from cross-pollination. Rob Simmons co-authored an introduction to a special issue on sports economics in *National Institute Economic Review* (May 2015) with the title “Sports Economics: It May be Fun But What’s the Point?” And Brad Humphreys focused his Keynote Presentation to the 2015 European Sports Economics Association on the importance of sports economists adding more behavioral economics to their research methods. Of course, this audience fully appreciates our challenges in both adapting well-known economic concepts and econometric methods to the arts/cultural sector, while trying to identify what is unique enough about this sector to require new approaches that might contribute to the broader field of economics, while trying to borrow productively from health, environmental and education literatures (links long stressed by Ruth Towse, Mark Blaug and others). Having to read the burgeoning sports literature did not seem helpful to cultural economists, and vice versa.

3. But, while acknowledging the argument that researchers in both areas have enough unresolved issues without further expanding their scope yet further, and the observation that both cultural and sports economics have had notable successes while largely ignoring each other, there are important topics that provide potentially fruitful overlaps.

## The Argument in Brief: Two Types of Relationships

. Such research agendas can be viewed as stemming from two types of relationships:

(A) Direct potential relationships between the arts and sports sectors that should not be ignored in a complete analysis; or

(B) Indirect lessons that can be learned and potentially applied by both researchers and manager/decision-makers in either sector due to the similar product and labor market conditions, exposure to technical shifts, and related similar challenges independently facing each sector.

## Broad Ways in Which Researchers can Benefit from Working with Both Literatures: **Direct Effects**

The degree to which arts and sports activities are complementary or substitutable has 4 broad dimensions:

(1) Consumption decisions as spectators, and production decisions as active participants, given time and talent constraints; the word “participation” can apply to either passive activity of being a spectator or actively engaging in sports or artistic activities. As noted, this has been a major focus of integrative research.

(2) Capacity for generating longer run valuable economic instrumental benefits linked to analytical talent, ability to cooperate, and character building, especially in children (“intrinsic” vs. instrumental impacts);

(3) Competitive strategic issues linked to product and geographic markets and pricing and marketing strategies of arts and sports organizations; both types of organizations generally seem to be “local monopolies,” but only if markets are defined narrowly, without accounting for potential competition across other art forms and seasonal sports, including more general competition for discretionary entertainment spending and time allocation that can make the arts competitive with sports and vice versa. Linked in part to (1).

4) Regional cultural infrastructure composition, cluster effects, and the ability of a region to (a) provide a high quality of life to its residents; (b) attract a talented workforce/creative cities, and (c) attract potentially economically valuable tourists and mega events to the region. This is also linked to cultural heritage issues, since there are many forms of cultural heritage assets, including those linked closely to sports, e.g., Moore, K. (2008), “Sports heritage and the re-imagined city: the National Football Museum, Preston,” *International Journal of Cultural Policy*, 14(4). This also raises questions about the optimal number and mix of cultural infrastructure assets in a region, threshold effects, and the marginal impacts of adding yet another asset to the existing “inventory.”

## Indirect “Demonstration” Effects linked to Common Challenges: Similarities in the Careers of Athletes and Artists

In the Rand publication, *The Performing Arts in a New Era* (2001), McCarthy et al. identify five key similarities:

- Earnings tend to peak early and decline quickly
- Employment is often sporadic and fragmented (Arts economists, of course, have done important work distinguishing the labor force involvement of artists in “primary artistic, secondary artistic, and non-artistic” activities. This is no longer true of full-time athletes in major international sports (although it was common even in those sports at one time), but is not uncommon for “minor” sports.
- While athletic careers are notoriously short, most artists leave their careers in their mid-thirties due to limited career opportunities, although the life cycle productivity effects of artists are much richer and more complex.
- Promising careers can be cut short by injuries from the physical demands of practicing and performing.
- While only very few become superstars (more on this later) the potential for great success provides critical inspiration (and may indeed generate excess investment in such skill development at early ages).

One issue not addressed by that Rand study is the issue of cluster effects, arts colonies, agglomeration effects and artistic productivity, which has been addressed in fascinating ways in arts economics, and even has some possible relevance in sports (the propensity of long distance runners to hail from Kenya, and indeed from a particular Kenyan tribe, the Kalenjin).

Another relevant issue is psychic income/happiness and the degree to which it serves as a compensating earnings differential in our understanding of artists and athletes labor markets. Happiness has also been linked to engagement in arts, culture and sport by non-professionals in participation studies (Wheatley and Bickerton, *JCE*, 2017; see below)

## Indirect “Demonstration” Effects Linked to Important Features of Team Sports: Link to Arts Organizations

- Superior sports data: (Moneyball, Sportometrics, Sabermetrics, Soccermetrics and the endless stream of obscure sports factoids and performance comparisons). Performance measures of athletes are ubiquitous and seemingly more easily documented in sports, but reliable composite performance “index” and “quality” rankings remain elusive.
- Complementarity among Labor Inputs: Team Effects. This “multiplicative production function” phenomenon is hardly limited to sports, and the arts have many examples (orchestras, theater groups, opera companies), and there is some evidence that the dispersion in earnings of both athletes and artists is greater when team effects are less critical.
- Joint production in the sense that productive value in sports almost always requires cooperation among competitors (and accounts for the “socialist” nature of cross-subsidies, payroll limits, drafting orders that reward losers, and other efforts to ensure competitive balance, even if unsuccessful). In the arts, even when there is competition in the form of awards, the degree of cooperation on the rules of the game and concern for competitive balance is much more muted, but not totally absent. Such cooperation in sports accounts in part for some specialized antitrust treatments.
- The exogenous shock effect of technical changes in the quality of consumer viewing options that makes it important to continue to improve the live game and performance experience, and has led to a kind of “arms” race in at least North American stadium building, and to some extent to the overbuilding and over-renovation of arts facilities.

## More Indirect Demonstration Effects

- The effects of media exposure, including the distinction between primary and secondary markets, with secondary (repeat viewing) options potentially more available and lucrative in, e.g. the movie industry than in professional sports leagues. Testable hypotheses regarding the optimal quantity and output mix, and risk taking in the two sectors might be generated. For example, an unpublished paper reviewed for the *Journal of Sports Economics* predicted fewer films but more spending per film in search of the rare “superstar” film, compared to comparatively less team sports spending designed to generate a more reliably popular product that can succeed in the primary market.
- Monopsony and Oligopsony Power (NCAA and sports leagues, conferences as a cartel); the large number of artists seeking jobs in a relatively small number of professional arts organizations also raises this issue for cultural economics.
- A dramatic disparity in the geographic focus of product markets vs. highly specialized input markets. For the most part, products are sold in localized markets, yet non-“humdrum” inputs are bought and sold in national/international markets.
- Games/matches are played in large capacity stadiums/arenas with ticket sales being one, but by no means the sole (or sometimes even the major) source of gross revenue. There are complex “static” strategies regarding ticket pricing linked to pricing dispersions among seating sections, how to allocate seats to those different sections, how to manage the relationship between ticket revenue and revenue from ancillary goods and services and media contracts. There are also complex issues related to ticket resale markets, and “dynamic” pricing strategies. Arts venues face similar issues.

## A Few Broad Themes Observed in These Literatures: Catchy Pathologies and Clever Effects

- A. The Baumol cost disease (limited labor substitution is recognized in sports research even if not citing to Baumol; Sports economists upset that the Rottenberg Invariance Principle pre-dated the more famous Coase Theorem)
- B. The Linder Harried Leisure Class opportunity cost of time affliction (sometimes called “Linder’s Disease”)
- C. The Gospel of Matthew the rich get richer effect, also linked to the Adler version of Superstar theories, and various studies suggesting that talent distinctions between contest winners and losers is *de minimus*; biases can exist in determining winners; path dependency effects exaggerate implications .
- D. The Boris Becker admirable role model effect (other athletes cited, e.g., Steffi Graf; Michal Stich; German studies)
- E. The Mozart vs. Pele effect and the intrinsic benefits vs. instrumental impacts debate
- F. The Rosentraub Transformation reflecting a shift by Mark Rosentraub from viewing sports subsidies as purely rent seeking (*Major League Losers: The Real Cost of Sports and Who’s Paying for It*, reviewed in *JCE* 1998, to sports and the arts combining to “save” selected cities and generate economic development (*Reversing Urban Decline: Why and How Sports, Entertainment and Culture Turn Cities in to Major League Winners*, 2<sup>nd</sup> edition, 2014).
- G. The Usain Bolt Effect: Higher quality competition improves one’s performance



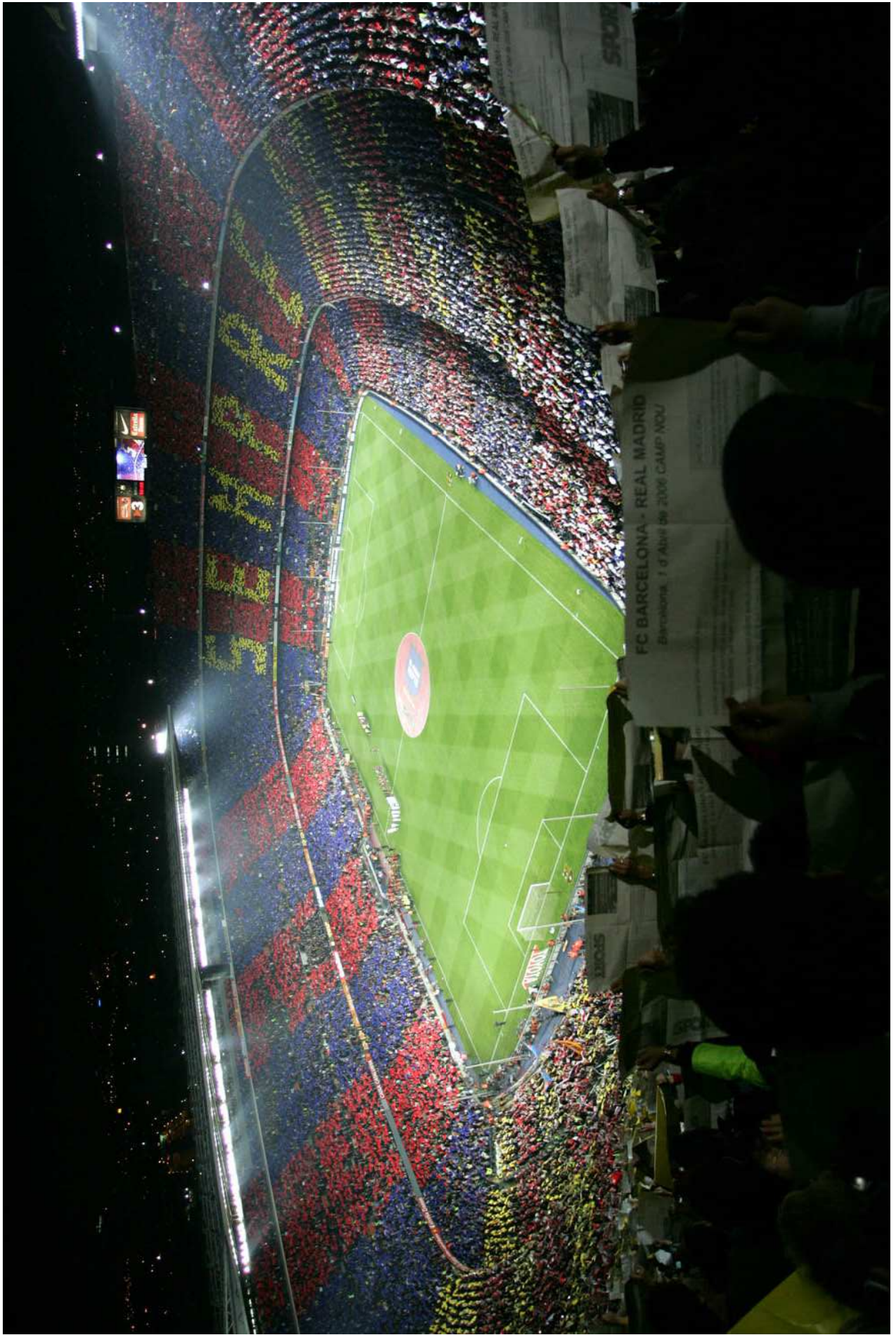
## Beware of What You Wish For

A. The Financial Crisis of European Football in the mid-90's to mid-00's has been widely linked by sports economists to the exogenous infusion of hugely expanded television revenues, that ultimately led some (mostly smaller) club owners and managers to “gamble the assets of the businesses on future success” (Rob Simmons co-guest edited a special issue on this topic, *Journal of Sports Economics*, 7(1), 2006).

B. The Cultural Policy Center (University of Chicago) study *Set in Stone: Cultural Infrastructure in the United States 1994-2008* (I was a collaborator) identifies the dilemma of large donations to arts organizations earmarked for dramatic expansions of arts facilities sometimes leading to the plague of “overbuilding” and future financial crises as the expanded facilities outrun growth in audiences, and future cost burdens of such expansion weaken organizations.

## For Cultural Economists, Allowing Sports to Enter Surreptitiously Can Hide Important Realities

- a. The success of Barcelona's efforts to develop cultural tourism in the 1990's (before they began trying to discourage tourism) were seemingly quite successful with visits to cultural attractions increasing from 48% to 58% between 1994 and 2002 (Turisme de Barcelona, 2003), but as noted by editor Greg Richards in his *Cultural Tourism: Local and Global Perspectives*, 2007, one of the fastest growing cultural attractions was the museum of Barcelona FC, with most visitors wanting to see the Camp Nou stadium where Barca plays football.
- b. The U.S. National Endowment for the Arts reports total revenue and number of employees in the cultural industries of arts and entertainment, but of the total revenues, 56.7% were from spectator sports, and 35.4% of employees (the largest single entry) were from spectator sports.
- c. Some research efforts to explore whether, e.g., "culture is a luxury in Latin America" is complicated by including spending on sporting event tickets as one of the examples of cultural spending, and makes efforts to compare derived income elasticities across studies with different definitions challenging.



## Direct Effect: Arts and Sports as Complements vs. Substitutes in Consumption/ Participation: Examples of Descriptive Evidence

**Perspectives on Sport, Nov 2011**, Australian Bureau of Statistics

### **SPORTS PARTICIPANTS ENJOY CULTURAL ACTIVITIES**

The 2009-10 ABS survey of Participation in Sport and Physical Recreation found that 11.1 million people aged 15 years and over (64%) participated in sport and physical recreation at least once in the 12 months prior to interview.

The participation and attendance surveys conducted by the ABS indicate that people who participated in sport and physical recreation went to both cultural and sporting events, more so than non-participants. In 2009-10, the ABS survey found that 10.3 million people (93%) who had participated in sport and physical recreation, had attended at least one cultural event in the previous 12 months. This dispels the notion that sports participants are only interested in or have time for sports. **People who participated in sport and physical recreation had higher attendance rates at cultural venues and events than non-participants (93% and 74% respectively). Women who participated in sport and physical recreation had slightly higher attendance rates at cultural venues and events (94%) than men (91%). Overall, participants had higher attendance rates at libraries, art galleries and the cinema than non-participants of sport and physical recreation.**

**Evidence from 2002 Household Survey Data in the United States (From Kopcznski and Hager, *The Value of the Performing Arts in Five Communities: A Comparison of 2002 Household Survey Data*, Urban Institute and Performing Arts Research Coalition, 2003 and 2004**

**Those frequently attending performing arts events compared to those not-attending such events are almost twice as likely to also attend professional sports events, and they are almost three times as likely to attend amateur sports events.**



## Important Studies Separately Studying the Arts and Sports: Focus on Opportunity Cost of Time

Most demand and participation studies consider those sectors separately, even if some studies were mutually supportive of important results such as the overall income elasticity being the net result of pure income effects and the opportunity cost of time intensive leisure activities. Also, the sports study below DOES incorporate simultaneity effects.

**ARTS:** 1. Withers, G. (1980), "Unbalanced growth and the demand for the performing arts: An econometric analysis," *Southern Economic Journal*, 46, 735-742.

Utilized the Becker concept of full income, to impute leisure time as part of full income, incorporating the price of leisure into a consumer price index deflator. Generated a relatively high "full income" effect partially offset by a smaller negative real leisure price effect, that generated "luxury" good overall income elasticities even in time intensive settings. Generated low price elasticities, but relatively high cross price elasticities for reading and "other recreation." Single equation estimation based on belief in recursive, not simultaneous structure of demand.

2. Ekelund, R and Ritenour, S. (1999), "An exploration of the beckerian theory of time costs: Symphony concert demand," *The American Journal of Economics and Sociology* 58, 887-899.

Less aggregated units than Withers, although still aggregated across a cross-section of orchestras, also found evidence for the fundamental idea that any positive income effect is partially offset by the time intensive nature of live performances and the opportunity cost of time. Normalized income elasticity of demand was positive but less than one. Single linear OLS after tests for simultaneity bias.

### **SPORTS:**

Løyland, K. and Ringstad, V. (2009), "On the price and income sensitivity of the demand for sports. Has Linder's disease become more serious?" *Journal of Sports Economics*, 10(6), 601-618.

(1) While focused on the demand for sports in Norway based on outlays for own sports as well as attendance at professional sport events, the model explicitly views the demand for sports and other goods as simultaneously determined, hence utilizing a system of demand functions; (2) Found initially greater than one income elasticities that decline over time, eventually to less than one, consistent with the Linder disease becoming more serious; and (3) **Estimated only modestly significant (statistically), but positive cross price elasticity of demand between sports and audiovisual media, positive but not significant cross price elasticities for newspapers (weeklies and books), and for cinema, and negative and modestly significant cross price elasticities (consistent with complementarity) for Live Performing Arts, and also for "noncultural goods."**

## Separate Studies re: Price Elasticity of Demand : A Brief Note

- Especially in the longer version of my Empirical Studies of Demand for the Performing Arts (2005, 2006), there is considerable discussion of the interpretation of the common econometric finding of low price elasticities of demand, not only in the performing arts, but also for many demand studies in sports.
- It is noted that sports economists had often resisted this result, finding it (1) inconsistent with profit maximizing pricing strategies by sports managements, and (2) especially enigmatic if one views such teams as having considerable market power in often localized geographic markets for particular sports that are viewed as highly differentiated from other entertainment options. Indeed, many sports economists had just dismissed this low elasticity result.
- Indeed, prominent sports economists Dennis Coates and Thane Harrison continued to express surprise in this result in their 2005 study of baseball attendance (*Journal of Sports Economics*), viewing it as a major topic for future research, even though D. R. Marburger (1997) and Rodney Fort (2004) had both linked this result to the rationally low prices charged for tickets when a large share of revenues are also derived from a variety of complementary concessions (Marburger) and from the media broadcasting rights for such sporting events (Fort).
- By 2007, however Coates had collaborated with Brad Humphreys to fully embrace the “rational underpricing” theory in their “Ticket Prices, Concessions, and Attendance at Professional Sporting Events,” *International Journal of Sports Finance*, where they conclude that “ticket pricing in the inelastic portion of the demand curve is consistent with revenue maximization by monopoly teams that also set prices for related goods and services like concessions and parking closer to the elastic portion of the demand curve.
- AND, that same year, Krautmann and Berri further strengthened the argument in “Can We Find It at the Concessions? Understanding Price Elasticity in Professional Sports?” *Journal of Sports Economics*, April 2007.
- **IN THE ARTS:** Clearly this tendency to “rationally underprice” tickets/subscriptions/membership fees reflects in part this sports experience, but is further exacerbated by the more complex objective functions of non-profit organizations concerned about audience building and diversity, and the development of strategies (including tying contracts) linked to maximizing revenues across both earned and unearned income sources (donations and grants).

## The Role of Raw Emotion in Demand Analysis

- The arts are famous for inducing emotional responses. Indeed, when the New York Philharmonic Orchestra visited North Korea in 2008, it elicited perhaps one of the few unscripted examples of genuine emotion in that country when it played the Korean folk song Arirang. This scene, in fact, made another appearance in the highly unexpected marketing film recently shown to the North Korean delegation in Singapore.
- Therefore, if I convince no one else in this audience to read the Sports literature, at least read this:

**“Impact of Overwhelming Joy on Consumer Demand: The Case of a Soccer World Cup Victory,”** Falter et al., *Journal of Sports Economics*, February 2008.

They find that “consumer demand [for soccer] has positively, significantly, and durably shifted in France following the 1998 World Cup,” and furthermore that this increase has been even stronger in the nine cities that hosted games.

## The Role of Beer (and Food and Spirits) in Demand Analysis

- Among the most shocking findings within the sports economics literature (to U.S. readers) was the absence of any evidence that beer availability increases attendance or revenue at 29 mid-major U.S. collegiate football stadiums between 2005-2012: A.J. Chastain et al., “Beer Availability and College Football Attendance: Evidence from Mid-Major Conferences,” *Journal of Sports Economics*, 18(6), 2017, using both OLS and instrumental variable estimation. However, other studies have found important links between alcohol and disorderly fan behavior, confirming all expectations.
- Indeed, while not a rich literature, that finding is not unique. Chastain et al. note that there is some evidence from other studies (Paul, Toma and Weinbach, 2009; and Cebula, 2013) that discounted beer prices increase attendance at minor league baseball games. [It should be noted that minor league baseball is a fascinating sub-market in itself, in which attendance within relatively small stadiums seems highly influenced by ancillary entertainment, circus clowns, between-inning promotions, and a carnival like atmosphere almost independent of the game being played]. But other studies, including those done in part by some of those same authors, find no such evidence, and another study found only about a 2% increase in baseball attendance after beer sales were allowed.
- **POSSIBLE RELEVANCE TO ARTS RESEARCH?** While not aware of any academic studies of this issue in the arts, there are important trends in movie theaters, with more installing bars (see, “Drink Up! Booze is the New Popcorn,” Pamela McClintock, *Hollywood Reporter*); and *Facility Manager* (Hagler, and White, September 1, 2015), identify “Better Food and Beverage Options” as the first of “Five Trends in Performing Arts Architectural Design.”
- **Arts economists have, however, included various measures of the importance of social interaction in their studies of attendance at performing arts events and in museums.**



## Studies Finding Limited Consumption Substitution

- As early as 2000, Juan Prieto-Rodriguez and Victor Fernandez-Blanco presented results at the Minneapolis ACEI conference regarding attending live sports events, attending the cinema and listening to music using Spanish data: “Are Live Sports Substitutes of Culture Consumption? Some Evidence for the Spanish case.” They conclude that sports “do not compete against the consumption of music or cinema” (using a bivariate probit estimation of a three-equation system, generating positive error covariances among all three activities). Gender and education generated important differences, and unsurprisingly, less educated males were especially likely to attend sports.
- Juan and Victor used the same approach to address the question “Are Popular and Classical Music Listeners the Same People?” (again using Spanish data; *JCE*, 2000), and also found evidence of what might be called complementarity inasmuch as those listening to classical music are also highly likely to be listeners of popular music. Importantly, as with sports vs. the arts, there is no clear causal connection that, e.g., makes classical music listening more “productive” at appreciating popular music, and their conclusion is fully consistent with the descriptive results from the Australian data and the concept of omnivores vs. univores (sometimes linked to the idea that people who enjoy live entertainment and social events tend to consume all types of such events/attractions). That is, they identify a common background and “innate taste for music” such that “if you are a music fan, you listen to both classical and popular music” (p 155).
- **In 2008, in Melbourne at the Australian Council for the Arts marketing summit, Diane Ragsdale (Andrew Mellon Foundation, U.S.) called for arts marketers to “Aim for the Cultural Omnivore” (Keynote Address).**

## Observation About Taste vs. Productivity (Constraint Variation) Explanations

The Becker (1965) and Becker/Stigler (1977) version of consumer theory is linked to household production models, and makes the important distinction between Z ultimate commodities (with “culture” as a possible Z commodity) that enter the utility function, and X market goods and services that enter the household production function, along with t (time), and “embodied human capital” (H) as productive inputs, subject to a full income budget constraint which is exhausted by money spending and opportunity cost of time spending.

It was motivated to avoid relying on “taste variations” as an explanation of behavior, by instead deriving a wider variety of constraint variations linked to shadow relative price and full income differences. Even models explicitly linked to the Becker model discussed below, do not focus on “cross marginal productivity” effects between the X market goods sports and the arts, or time spent in sports and arts activities, or the possible endogenous effect of arts and sports on embodied human capital, that could reduce the shadow price of Z culture so as to generate substitution and real income effects that increase both the consumption of Z culture, and increase the utilization of both X arts and X sports goods (and time on both activities) devoted to producing that additional quantity of culture.

Lancaster characteristics analysis has also been compared to Bourdieu in examining cultural products and “social space,” but with only bullfights and circuses as the alternative to arts activities (e.g. López Sintas and García Álvarez, *Journal of Cultural Economics*, 26, 2002).

## Some Evidence of Consumption Substitution

- The study of *The Demand for the Arts* (2002) by Louis Lévy-Garboua and Claude Montmarquette did not focus on sports vs. the arts, but their taste-cultivation model is consistent with a negative relationship between the consumption of “popular culture” and the kind of artistic consumption that tends to rise over time with the accumulation of “specific consumption capital.”
- Sarah Montgomery and Michael Robinson (2006, Winter), *International Journal of Arts Management*, expressed some skepticism about complementary relationships and found more mixed evidence in their “Take Me Out to the Opera: Are Arts and Sports Complements?” (using data from the Performing Arts Research Coalition; 8,000 survey respondents in 10 U.S. Cities in 2004). They use a model similar to Prieto-Rodriguez and Fernandez-Blanco, but with continuous (natural log of number of times attended) rather than binary probit (attend or not attend) modeling. They examine attendance at performing arts events (orchestra, opera, theatre, dance), sports (amateur sports, and professional sports), and popular events (comedy, rock concert, clubs, movies). When they generate the error covariances between equations for percentage of attendance (“attendance share”) at various events controlling for both total attendance and attendee demographic characteristics, their results are quite varied (and different from the case of total attendance): (1) Within the performing arts group, covariances are positive and significant suggesting complements; (2) other covariances are negative suggesting substitutes, but that is not particularly strong between performing arts and the two sports categories; (3) The strongest substitution relationship for amateur and professional sports is with MOVIES ; and (4) MOVIES also have the strongest substitution relationship with both arts events and with popular events.
- **This will not shock Rob Simmons, whose 2016 research with Elliot and Sanchez found similar effects for movies and sports (*Applied Economics*): “Substitution between leisure activities: a quasi-natural experiment using sports viewing and cinema attendance.” Their very timely (for the current World Cup) result using data across four countries was a “large and robust negative effect of mega-sports events on cinema admissions.”**

## Integrative Models of Time Allocation Decisions between Sports and Culture: Complementarity Again

**“Allocation of Time to Sports and Cultural Activities: An Analysis of Individual Decisions,”** Muñiz, Rodriguez and Suárez, *International Journal of Sport Finance* (6), 2011.

- Data provided by the Time Use Survey in Spain.
- Time spent on sports activity (hours/day) was active (walking, playing football, going to gym, fishing, swimming, but also DANCING), and passive (attending sporting events).
- Time spent on cultural participation was also active (painting, sculpture, ceramics, graphics, pottery, making movies,, singing, DANCING, playing musical instruments, writing prose or poetry), and passive (attending cultural events).
- Other leisure activities also considered separately.
- CES utility functions, bivariate probit estimation, opportunity cost of time same between sports, arts, but price data not included. Correlation between residuals of sports and arts equations used to examine relationship. Many demographic control variables.
- **Positive correlation between sports and cultural activities, both as probability of participation, and amount of time allocated, suggesting a complementary relationship. Many other findings linked to other independent variables.**

**“Leisure participation: modeling the decision to engage in sports and culture,”** Hallman et al. *Journal of Cultural Economics*, 41(4), 2017

- Data provided by German Socio-Economic Panel (SOEP)
- Sports participation measured by “Please indicate how often you participate in active sports,” with options of every week, every month, less frequently, and never. Transformed into dummy with 1= every week.
- Cultural participation measured by “Please indicate how often you participate in art or musical activities?” Same transformation.
- Sports and Cultural participation as dependent variables estimated simultaneously using a bivariate probit model, with many demographic control variables including SWB (satisfaction with current life on 1-10 scale). No price variable.
- Model claimed consistent with Becker household production optimization subject to money and time constraints.
- **Results indicate both types of activities are interrelated, with correlation of the errors of both equations consistent with modest complementarity. Many other results.**
- A positive relationship found between human capital and sports and cultural participation, but as usual, this is measured as “exogenous education” with no explicit interdependency between cultural consumption capital and sports consumption capital.

## Direct Effect: Capacity of Sports vs. Arts/Culture To Generate Intrinsic Benefits via Subjective Well-Being

- The increasingly large literature on “Happiness Research” can be distinguished from the related concept of psychic income as it affects artist or athlete labor supply decisions. Many papers separately address this issue in arts/culture and sports (e.g., “Does sport make you happy? An analysis of the well-being derived from sports participation,” P. Downward and S. Rasciute, *International Review of Applied Economics*, 25(3), 2011). Two helpful overview treatments beyond Throsby’s *Economics and Culture* are: (A) Victoria Ateca-Amestoy, “Leisure and subjective well-being,” in Cameron’s *Handbook on the Economics of Leisure*; and (B) Bruno Frey and Alois Stutzer, “What can economists learn from happiness research?” *Journal of Economic Literature*, 40(2), 2002.
- A recent integrative paper in the *JCE* 41(2017) warrants highlighting: “Subjective well-being and engagement in arts, culture and sport,” Daniel Wheatley and Craig Bickerton. The only prior study with a similar focus is S. Galloway et al., (2006), *Quality of life and well-being: Measuring the benefits of culture and sport: Literature review and think-piece*, Scottish Executive Education Department, Edinburgh.
- Data from *Understanding Society* linked to the *British Household Panel Survey, 2008* are utilized (a multi-topic longitudinal survey of 40,000 households). Included are 14 arts activities (51.5% report engaging at least once in the past year), 14 arts events (67.9%, concerts and cinema most often), museum (34.8%), library (31.4%) and archives (4.1%), 8 historical sites (57.7%), 30 moderate intensity sports (58.8%, with 31.5% engaging weekly), and 9 mild intensity sports (55.4%, with 21.1% engaging weekly).
- Mean satisfaction levels for those engaging or not engaging in the various activities (on a Likert scale of 1-7) are derived for the criteria “satisfied with life,” “satisfied with the amount of leisure time,” and “satisfied with job”, and also for “general happiness” (measured on a 1-4 point Likert scale).
- Ordered probit models are also estimated to explain satisfaction levels as a function of a large number of demographic control variables, along with the various frequency of engagement in the arts, culture, and sport activities.

## Selected Comparative Results of the Subjective Well-Being Research (Wheatley and Bickerton, 2017)

ANOVA significant (1%) differences in mean satisfaction linked to engaging or not engaging: Arts/Culture; first number is for those engaging

- Arts activities: 4.86 (engage) vs. 4.67 (not engage)
- **Arts events: 4.80 vs. 4.86 [happiness reduced]**
- Library: 4.89 vs. 4.78
- Archives: 4.98 vs. 4.81
- Museum: 4.86 vs. 4.79
- Historical sites: 4.85 vs. 4.76

Satisfaction with amount of leisure time, however, is greater among those engaging in all of the activities.

Except for archives, engagement in all activities has positive link with general happiness.

But, differences between those engaging and not engaging are statistically insignificant with regard to job satisfaction.

ANOVA significant (1%) differences in mean satisfaction linked to engaging or not engaging: Sports; first number is for those engaging

- **Moderate intensity sport: 4.79 vs. 4.87 [reduced]**
- Mild intensity sport: 4.82 vs. 4.81
- Satisfaction with amount of leisure time, however, is greater among those engaging in both of these activities.
- Engagement in both activities has positive link with general happiness.
- But differences between those engaging or not engaging are statistically insignificant with regard to job satisfaction.

## Direct Effect: Instrumental Benefits Linked to Child Development, Education and Health: Mozart vs. Pele

- Again, there is a vast literature attempting to separately determine the role that arts/culture and sport play in producing “better” (not just “happier”) people. This can also include the effects on a spirit of cooperation, discipline and work habits, and the ability to get through the entire *War and Peace* (OK, I made that one up). There have also been some studies measuring the damage that can be caused by arts and sports due to excess emotional pressure, injuries, and excess competitive zeal.
- Charlotte Cabane, Adrian Hille, and Michael Lechner, using the German Socio-Economic Panel Study (SOEP) generated a DIW Berlin 2015 Working Paper that was published in *Labour Economics*. 41 (August 2016) “Mozart or Pelé: The effects of adolescents’ participation in music and sports” (“teenagers” evolved into “adolescents” between the two versions).
- The survey asks whether respondent plays a musical instrument or pursues singing seriously, followed by questions regarding what type, alone or in a group, starting age, and whether they take music lessons outside school. Similar general questions are asked about sport: “Do you play sports,” followed by what is the most important sport played, where it is played, starting age, and how often they participate in organized sports competitions. There are also questions related to educational achievements and plans, and cognitive (measured by standardized tests) and non-cognitive skills (lined to the SOEP youth questionnaire linked to five personality traits: conscientiousness, openness, extraversion, neuroticism and agreeableness), and opinions. Educational success is measured with respondent’s school type and whether university study is envisioned, and recent school grades are provided in mathematics, German and a foreign language. Health measures and school attendance information is available.
- There are many interesting findings, but the key comparative results are:
  1. Playing music fosters better educational outcomes compared to doing sports, particularly for girls and children from more highly educated families.
  2. Doing sports is especially good at improving subjective perceptions of health.
  3. Doing both music and sport was the surest route to educational success, suggesting some complementarity in effectiveness.

## Dynamic Pricing Strategies Are Increasingly Common in Both Arts and Sports

- Static price discrimination of various types, including de facto tying contracts between fixed and variable charges, are common in both sectors. One recent contribution in the arts could have usefulness to sports researchers: “Revenue and attendance: Simultaneous optimization in performing arts organizations,” Andrea Baldin, Trine Bille, Andrea Ellero and Daniela Favaretto, forthcoming in *JCE* (first online May 3, 2018) examines the interrelationship between price variations across seating sections, and the allocation of seats to such sections, and how those choices vary with the competing goals of revenue maximization and attendance maximization.
- Dynamic pricing has been used in situations where temporal demand differences are important, and buyers can be segmented based on whether they can pre-commit to buy early or must (or choose to) wait to buy closer to the time when goods, and services are rendered. The primary dynamic pricing approaches are (1) peak-load pricing (or time of use pricing), (2) yield management, which essentially prices a perishable commodity like airline seats, hotel rooms, and more recently entertainment venue seats based on the changing available unfilled capacity over time, typically relative to a benchmark of expected unfilled capacity, such that if there are more unfilled seats or rooms than projected some target days prior to them "perishing", price is reduced, and vice versa; and (3) uniform price auctions, which can be used when sellers are especially unsure about the willingness to pay of consumers, but via a process of interactive price discovery can set a price that clears the market for the available supply capacity.



## More on Dynamic Pricing

- Such pricing has become relatively common in U.S. sports (about 25% of NFL teams, a fair share of baseball teams, and increasing number of college football programs), where pricing varies with such short run supply and demand factors as current team opponent, weather conditions, recent performance of the home team.
- Rodney Paul and Andrew Weinbach (2013), 'Determinants of dynamic pricing premiums in Major League Baseball', *Sport Marketing Quarterly*, 22, 152-165
- Stephen L. Shapiro and Joris Drayer (2014), 'An examination of dynamic ticket pricing and secondary market price determinants in Major League Baseball', *Sport Management Review*, 17, 145-159.
- This is also increasingly being attempted by arts organizations, and the University of Chicago Cultural Policy Center sponsored a symposium on the topic that led to numerous on-line presentations on the topic by famous organizations: Chicago Symphony Orchestra, Sydney Opera House, Goodman Theatre, Center Theatre Group.
- BUT, such strategies have not yet been as common with sports organizations outside the U.S. with a study of F.C. Bayern Munich's possible adoption of dynamic pricing suggesting large potential revenue gains. Christoph Kemper and Christoph Breuer (2016), 'How efficient is dynamic pricing for sports events? Designing a dynamic pricing model for Bayern Munich', *International Journal of Sport Finance*, 11, 4-25.
- And non-profits arts organizations can struggle with conflicting objectives that make it more difficult to adopt dynamic pricing strategies. Leticia Labaronne and Tilman Slembeck (2015), 'Dynamic pricing in nonprofit performing arts', *International Journal of Nonprofit and Voluntary Sector Marketing*, 20, 140-154.

## Other Potentially Productive Research Collaborations

- Labor Unions and Rent Distribution
- Managerial and Director Productivity; Effect of Managerial Turnover
- Career Development, Screening and Human Capital (Gatekeepers in both arts and sports)
- Property Rights and Training: Differences and similarities in the “farm systems” in sports vs the arts.
- Surprising popularity of efficiency studies, such as stochastic frontier analysis, and data envelope analysis in both literatures