OMT Distinguished Scholar?  
- Distinguishing features

The Skewed Few and the Many  
- Power Laws of publication and citation

Journal Impact Factors  
- Reliance on the skewed few

Skew and Quality  
- The origins of skew

Conclusion  
- Down with the count
“Scholars whose contributions have been central to the intellectual development of the field of organization studies ... each recipient embodies a career of scholarly achievement and has had a significant impact on OMT scholarship.”

OMTweb.org
OMT Distinguished Scholar?

- 2010 Dan Levinthal
- 2009 Christine Oliver
- 2008 Woody Powell
- 2007 Ron Burt
- 2006 Stephen Barley
- 2005 Joanne Martin
- 2004 David Whetten
- 2003 Michael Tushman
- 2002 Kathy Eisenhardt
- 2001 Jane Dutton
- 2000 Howard Aldrich
- 1999 Bob Hinings
- 1998 Paul Hirsch
- 1997 Andy Van de Ven
- 1996 Henry Mintzberg
- 1995 Jeff Pfeffer
- 1994 Rosabeth Moss Kanter
- 1993 Andrew Pettigrew
- 1992 Mike Hannan
- 1991 John Van Maanen
- 1990 Mayer Zald
- 1989 Richard Cyert
- 1988 Bill Starbuck
- 1987 Richard Scott
- 1986 Jim March
- 1985 John Child
- 1984 Charles Perrow
- 1983 Eric Trist
- 1982 Robert Kahn
- 1981 Karl Weick
- 1980 Paul Lawrence

Source: OMTweb.org
OMT Distinguished Scholar?

- Distinguishing features (circa award)
  - Pedigree: “Elite” NA university
  - Provenance: “Elite” NA university
  - Publications: 25-50; many “top-tier”
  - Cites: 10,000-20,000 Google cites
  - Programmatic: Clearly linked to distinct OMT perspective
  - Time: 20-30 years since PhD
  - Editor: Past/current “top-tier” journal editor, associate editor, editorial board member
  - OMT: Past division executive
Pareto, Lotka, Zipf, Yule, Bradford, and others, have shown skew to be the natural order of things.
The Skewed Few and the Many

- Academics do not publish equally; our publication rates are highly positively skewed
  - A few publish a great deal; many more very much less
  - A very few publish a great deal in “top” journals; most do not
- Lotka’s Inverse Squared Law
  - If \( k \) authors publish 1 paper, then \( k/n^2 \) authors publish \( n \)
    - So, if 100 authors publish 1 paper, 25 will publish 2, 11 will publish 3, 4 will publish 5, ... and 1 will publish 10
- Strikingly, the same skewed few persist over time, and increase their advantage as their cohort ages
Articles per Author

Admin Sci Q, 1990-2010
- 68% = 1
- 9% > 2
- 1% > 4

Org Sci, 1990-2010
- 60% = 1
- 16% > 2
- 2% > 4

Acad Mgt J, 1990-2010
- 59% = 1
- 24% > 2
- 6% > 4

Acad Mgt Rev, 1990-2010
- 65% = 1
- 5% > 2
- 1% > 4
Pr(Articles per Author)

Log-Log Plots

Admin Sci Q, 1990-2010

Org Sci, 1990-2010

Acad Mgt J, 1990-2010

Acad Mgt Rev, 1990-2010
Author Concentration

Admin Sci Q, 1990-2010

Org Sci, 1990-2010

Acad Mgt J, 1990-2010

Acad Mgt Rev, 1990-2010
Nor are institutions equally productive; institutional publication rates are highly positively skewed

- A few faculties publish a great deal; many more very much less
- A very few publish a great deal in “top” journals; most do not
Articles per Institution

Admin Sci Q, 1990-2010
- 82% = 1
- 11% > 2
- 4% > 10

Org Sci, 1990-2010
- 78% = 1
- 15% > 2
- 5% > 10

Acad Mgt J, 1990-2010
- 80% = 1
- 15% > 2
- 5% > 10

Acad Mgt Rev, 1990-2010
- 77% = 1
- 3% > 2
- 1% > 10
Pr(Articles per Institution)

Admin Sci Q, 1990-2010

Log-Log Plots

Org Sci, 1990-2010

Acad Mgt J, 1990-2010

Acad Mgt Rev, 1990-2010
Institutional Concentration

Admin Sci Q, 1990-2010

Org Sci, 1990-2010

Acad Mgt J, 1990-2010

Acad Mgt Rev, 1990-2010
The Skewed Few and the Many

- Articles too are unequally cited; article citation rates are highly positively skewed
  - A few articles are cited a great deal; many more very much less
  - Many are rarely cited, some never
Pr(Article Citations per Year)

Log-Log Plots

Admin Sci Q, 1990-2010

Org Sci, 1990-2010

Acad Mgt J, 1990-2010

Acad Mgt Rev, 1990-2010
Citation Concentration

**Admin Sci Q, 1990-2010**

**Org Sci, 1990-2010**

**Acad Mgt J, 1990-2010**

**Acad Mgt Rev, 1990-2010**
The idea that a few “top” authors from a few “top” schools publish “top” papers in “top” journals has a certain appeal to it ... but not without consequences
The Skewed Few and the Many

- The few are held in esteem as thought leaders for having made major contributions to our understanding
  - They are (quite understandably) ready to accept the accolade that it is their quality that distinguishes them
- They are recruited by a few “elite” schools
- They are selected as gatekeepers
  - As reviewers and editors they help to ensure that top journals publish only top papers, and as department chairs to ensure that their schools recruit and promote only top scholars

Macdonald & Kam, 2011, Organization
The Skewed Few and the Many

- The few are cited often
  - Friends and colleagues cite them
  - Contributors to journals where they serve as reviewers, board members and editors, cite them

- The few seldom publish alone
  - They are in demand as collaborators, frequently working with more junior colleagues anxious to join their ranks
  - More coauthors means more self-citing, which means more citing

- The more they are cited, the more they are cited... and the more they are cited, the more obligatory their citation becomes...

Macdonald & Kam, 2011, *Organization*
The Skewed Few and the Many

• Elite institutions covet them
  ○ The more they are cited, the greater their influence on the influence of elite schools, promoting a winner-take-all market for the few
  ○ Influence concentrates, which means more citing
    ▪ Fewer than 20 schools account for over half of all citations

• Top journals covet them too
  ○ The more they are cited, the greater their influence on journal Impact Factors
  ○ And, the more they are invited to join top journal editorial boards, which means more citing still

Macdonald & Kam, 2011, *Organization*
Journal Impact Factors
Neither are journals cited equally; journal citation rates are highly skewed
- A few journals are cited a great deal; many more very much less
- Many are rarely cited, some nearly never
Journal Impact Factors

Management Journals, 2008

Management Journals, 2008

Management Journals, 2008

Management Journals, 2008

Baum, 2011, Organization
The idea that a few “top” journals publish “top” papers by a few “top” authors from a few “top” schools also has a certain appeal to it; but it too is not without cost...
The few are considered “top” journals, held in high esteem for publishing major contributions to the field.

- They are (understandably) ready to accept the palm that it is the quality of their editing and reviewing that distinguishes them.

- Their editors and reviewers act as gatekeepers, helping to ensure that only papers whose topics, theories, and methods make them highly citable are published.
Reliance of the Few on the Few

Authors emphasize publishing in the few

- To do so, they attempt to consecrate their work by
  - Aligning topic, theory, and method with top journal predilections
  - Citing top journals and top authors; particularly top journal reviewers, editorial board members, and editors
  - The successful see their work published, become top journal reviewers and editors, and top authors themselves

- Cascading submissions
  - The unsuccessful work their way down the journal ranks with each rejection, diffusing top journal predilections as well as citations to their reviewers and editors throughout the journal ranks

Lampel & Baum, 2010, Advances in Strategic Management
Reliance of the Few on the Few

- Impact factor engineering
  - Journal IFs depend critically on skewed few authors
    - In both absolute and relative magnitude
  - Skewed few journals depend on them most; skewed few authors tend to dominate their editorial boards

Baum, 2011, *Organization*
Reliance of the Few on the Few

- Publish – in top journals – or perish
  - Tendency is increasingly to ascribe the “quality” of a journal to each article published in it
    - A researcher’s contribution is less important than where s/he is published
  - But a journal’s articles are not cited equally...

| Articles Above (Below) other Journals' Median Citations per Year, 1990-2010 |
|---|---|---|---|---|---|
| Journal | AMJ | ASQ | OSci | JMS | OStud |
| Academy of Management Journal | (29.9%) | (9.5%) | (7.8%) |
| Administrative Science Quarterly | (18.9%) | (7.5%) | (6.5%) |
| Organization Science | 24.5% | 19.4% | (23.3%) | (21.2%) |
| Journal of Management Studies | 7.3% | 5.6% | 18.8% |
| Organization Studies | 9.7% | 6.2% | 15.3% |

Note: % of articles published in row journal with citations/year above (below) the median of the column journal.

Baum, 2011, Organization
Unequal citation also makes journals difficult to distinguish more generally.
Publication counts and citations are strongly correlated with peer appraisals of researcher impact and reputation, as well as the prestige of their honorific awards (Narin, 1976)
Skew and Quality

- Skew is common, but often without signalling quality
  - Presence of quality implications
    - Wealth, income, corporate profits, growth and size, innovations, industrial clusters, social capital, movies, music, books, magazines, websites, blogs, tweets, home runs, ...
  - Absence of quality implications
    - Earthquakes, avalanches, hurricanes, drought, city growth and size, building height, corporate losses, bankruptcies and fraud, bank crises, voluntary participation, traffic congestion, drug and alcohol use, accident fatalities, war casualties, epidemics, ...

- Do publication and citation skew signal quality?
The Origins of Skew

FOR TO ALL THOSE WHO HAVE, MORE WILL BE GIVEN, AND THEY WILL HAVE AN ABUNDANCE; BUT FROM THOSE WHO HAVE NOTHING, EVEN WHAT THEY HAVE WILL BE TAKEN AWAY. MATTHEW 25:29

Merton, 1968, *Science*
The Origins of Skew

• Sacred spark
  ○ Rare individuals of great talent, ability and motivation to do scientific work
    ▪ Are talent and motivation really that skewed?
    ▪ Individual differences weakly correlated with productivity
      ○ Caveat? The STP rule
    ▪ Doesn’t account for increasing inequality within cohorts over time
Accumulative advantage

- The Matthew effect is a double-edged process that rewards success and punishes failure
  - Successful authors gain recognition and acceptance, yielding access to resources, time, expert colleagues and capable students, and inspiring greater effort to meet expectations
  - Recognition and resources are withheld from those who lack success in publication, discouraging their effort
- Small differences in initial achievements become magnified, and are further reinforced over time
Accumulative advantage

- If access to resources and expertise are allocated based on early achievements—including pedigree, provenance, and publication, and in which there is an element of luck—then some gain a cumulative advantage that does not reflect their initial abilities
  - Those who lag in early achievement will find it increasingly difficult to catch up

The many may thus be justified in their doubts about the “quality” of the few “star” researchers
So, publication skew has little to do with quality, right?
- Right.
- Little correlation between most prolific and most cited authors (Peng & Zhou, 2006)
  - Indeed, most highly-cited articles are not work of the most prolific authors

<table>
<thead>
<tr>
<th>100 most-cited articles, 1980-2010</th>
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<tbody>
<tr>
<td>Journal</td>
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<tr>
<td>---------</td>
</tr>
<tr>
<td>ASQ</td>
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<td>OrgSci</td>
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<td>AMJ</td>
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<td>AMR</td>
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Authors ≤ 4 articles

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<th>Total Authors</th>
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Authors ≥ 5 articles

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<th>Articles</th>
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<td>26</td>
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<td>2</td>
<td>11</td>
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</table>

Dist Scholars ≥ 5 articles
**Skew and Quality**

- Drats. There is a correlation after all!

**Article Top 100 Hit Rate**

- Top 100 articles/Total articles

**Author Top 100 Hit Rate**

- Top 100 authors/Total authors

- Akin to disproportionate citation of “top” schools
So, does citation skew signal quality?

- No agreement in sociology or philosophy of science on the significance of skew in citation rates
- Why authors cite particular articles, and the meaning of citations, is more complex than the simple normative view of citations as an indicator of intellectual debt
  - More likely to cite papers that confer legitimacy in certain topics, methods, or journals (consecration, signalling), or are better (vs. lesser) known (preferential attachment, salience and halo effects)
  - As a result, \( p(\text{citation}) \) increases with citedness
  - Small initial differences in citedness between articles tend to become large over time
Citations “measure influence ... not ... quality or intellectual rigor” (Starbuck, 1994: 2)

- But, citations need not reflect influence either
  - Resort to review articles
  - Methods
  - Copying (including errors)
  - Established knowledge not cited regardless of quality
  - Flattery (editors, potential referees)
  - Showing off (‘hot’ papers, ‘hot’ authors)
  - Friends and colleagues
  - Cite for utility – affirmation, substantiation, consecration – not quality
It seems unnecessary to observe the accelerating trend toward quantitative characterizations of human activity

- Seduced by its simplicity and apparent objectivity we have turned quantitative analysis on ourselves

But, it does seem necessary to observe that:

- Quantitative measures, including publication counts, citation counts, and Impact Factors, gauge a particular, and uncertain, kind of performance
- They are not direct measures of quality
Indeed, as measures of research performance, such quantitative accounts are inherently flawed:

- In counting “top tier” journal articles, we attach the same value to each article, masking extreme variability in the citedness of articles published in these journals.

Yet, this variability:

- Permits the vast majority of articles – and the journals themselves – to free-ride on a few highly-cited articles, which are pivotal in determining Impact Factors.
- Blurs distinctions among journals based on their articles’ citedness.
Conclusion

- Typically, measures found to be ill-conceived fall into disrepute and disuse within a scientific community
  - Remarkably, this has not been the case in OMT; if anything, such measures are being applied ever more frequently – and their expanding use into a range of performance assessments distorting our behavior in detrimental ways
- It is curious that we would rely upon such flawed measures to evaluate our own performance
- Although why we do so is not entirely clear, that we need to stop is
Conclusion

In a quest to understand distinguished scholarship, I have probed how we gauge “distinction,” and in particular our tendency to equate skew with quality:

- Few journals are highly-cited; those few are “top tier”
- Few articles appear in top journals; a few of these are also highly cited; those few are “seminal”
- Few institutions publish in top journals; a few of these frequently; those few are “elite schools”
- Few authors publish in top journals; a few of these frequently; those few are “distinguished”

And, while such attributions may be warranted, some healthy skepticism seems in order
Along with that skepticism, more attention to the many – authors, articles, and journals – is in order

Campbell (1975) famously recanted his early view of the case study as having “almost no scientific value,” concluding that for the alert and conscientious social scientist it is falsification, not verification, that characterizes the case study.

It is time to recant our comparable view of the many

Although this work is often different in topic, theory and method from what ‘top’ authors publish in ‘top’ journals, the alert and conscientious social scientist will find much of this work rigorous and sound, representing a vital source of insight, inspiration and innovation for our field.

Campbell and Stanley, 1966. *Experimental and Quasi-Experimental Designs for Research*