Power, Voting, and Voting Power: 30 Years After
Editors
Manfred J. Holler
Department of Economics
Institute of SocioEconomics
University of Hamburg
Hamburg, Germany

Hannu Nurmi
Department of Political Science
and Contemporary History
University of Turku
Turku, Finland

DOI 10.1007/978-3-642-35929-3
Springer Heidelberg New York Dordrecht London

Library of Congress Control Number: 2013931276

© Springer-Verlag Berlin Heidelberg 2013
This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of
the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations,
recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or
information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar
methodology now known or hereafter developed. Exempted from this legal reservation are brief
excerpts in connection with reviews or scholarly analysis or material supplied specifically for the
purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the
work. Duplication of this publication or parts thereof is permitted only under the provisions of
the Copyright Law of the Publisher’s location, in its current version, and permission for use must
always be obtained from Springer. Permissions for use may be obtained through RightsLink at the
Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.
The use of general descriptive names, registered names, trademarks, service marks, etc. in this
publication does not imply, even in the absence of a specific statement, that such names are exempt
from the relevant protective laws and regulations and therefore free for general use.
While the advice and information in this book are believed to be true and accurate at the date of
publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for
any errors or omissions that may be made. The publisher makes no warranty, express or implied, with
respect to the material contained herein.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)
Contents

Reflections on Power, Voting, and Voting Power  ........................................ 1
Manfred J. Holler and Hannu Nurmi

Part I  Power

Social Power and Negative Freedom  ...................................................... 27
Ian Carter

Causation and the Measurement of Power  ............................................. 63
Matthew Braham

Part II  Voting

Models and Reality: The Curious Case of the Absent Abstention  ........ 73
Dan S. Felsenthal and Moshé Machover

A Test of the Marginalist Defense of the Rational Voter
Hypothesis Using Quantile Regression .................................................... 87
Serguei Kaniowski

Intensity Comparisons, the Borda Rule and Democratic Theory .......... 103
Eerik Lagerspetz

List Apparentements in Local Elections: A Lottery  ............................... 123
Friedrich Pukelsheim and Peter Leutgäb

Voting and Power .................................................................................. 137
Annick Laruelle and Federico Valenciano
Decisiveness and Inclusiveness: Two Aspects of the Intergovernmental Choice of European Voting Rules ................................................. 151
Thomas König and Thomas Bräuninger

Minimax Multi-District Apportionments ........................................ 169
Gianfranco Gambarelli and Arsen Palestini

Gridlock or Leadership in U.S. Electoral Politics ............................ 187
Evan Schnidman and Norman Schofield

Part III The Measurement of Power

A Review of Some Recent Results on Power Indices .......................... 231
J. M. Alonso-Meijide, B. Casas-Méndez and M. G. Fiestras-Janeiro

Power, Cooperation Indices and Coalition Structures ........................ 247
Rafel Amer and Francesc Carreras

The Power of a Spatially Inferior Player ............................................. 265
Mika Widgrén and Stefan Napel

On the Nucleolus as a Power Index .................................................. 283
Maria Montero

Coalition Configurations and the Public Good Index .......................... 301
José M. Alonso-Meijide, Balbina Casas-Méndez, M. Gloria Fiestras-Janeiro, Manfred J. Holler and Andreas Nohn

Circumstantial Power: Some Hints for Finding Optimal Persuadable or Bribable Voters ......................................................... 315
Josep Freixas and Montserrat Pons

Part IV Applications of Voting Power Measures

Power Indices and the Design of Electoral/Constitutional Systems .......... 333
Ron Johnston

Fair Voting Rules in Committees ..................................................... 347
František Turnovec

On Penrose’s Square-Root Law and Beyond ..................................... 365
Werner Kirsch
A New Analysis of a Priori Voting Power in the IMF: Recent Quota Reforms Give Little Cause for Celebration. ........................................ 389
Dennis Leech and Robert Leech

A Priori Voting Power and the US Electoral College .......................... 411
Nicholas R. Miller

Do Voting Power Considerations Explain the Formation of Political Coalitions? A Re-Evaluation. .................................................. 443
Vincent C. H. Chua and Dan S. Felsenthal

A Note on Communication Structures ........................................... 467
Vito Fragnelli

Shareholder Voting Power and Ownership Control of Companies ....... 475
Dennis Leech

Part V  Voting Power in the European Union

Calculus of Consent in the EU Council of Ministers .................... 501
Hannu Nurmi, Tommi Meskanen and Antti Pajala

The Creation of European Economic and Monetary Union ............. 521
Madeleine O. Hosli

Apportionment Strategies for the European Parliament .................. 541
Cesarino Bertini, Gianfranco Gambarelli and Izabella Stach

Strategic A Priori Power in the European Union’s Codecision Procedure Recalculated for EU28 ............................................. 553
Stefan Napel, Mika Widgrén and Alexander Mayer

Square Root Voting System, Optimal Threshold and π .................... 573
Karol Życzkowski and Wojciech Słomczyński

The QM Rule in the Nice and Lisbon Treaties: Future Projections .... 593
Dan S. Felsenthal and Moshé Machover

Part VI  The Aggregation of Preferences

Explaining All Possible Paired Comparison Problems .................... 615
Donald G. Saari
A Geometric Approach to Paradoxes of Majority Voting: From Anscombe’s Paradox to the Discursive Dilemma with Saari and Nurmi ........................................ 645
Daniel Eckert and Christian Klamler

Necessary and Sufficient Conditions to Make the Numbers Count .... 661
Marlies Ahlert and Hartmut Kliemt

Limit Property of a Multi-Choice Value and the Fuzzy Value .......... 669
Rie Ono-Yoshida

Pure Bargaining Problems and the Shapley Rule ........................ 681
Francesc Carreras and Guillermo Owen

Veto Players and Non-Cooperative Foundations of Power in Legislative Bargaining ........................................ 703
Andreas Nohn

Distortion-Free Logrolling Mechanism ................................. 709
Hannu Vartiainen

Coalitions and Catastrophic Climate Change .......................... 725
Norman Schofield