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- Ajzen, I., M. Fishbein (1980) *Understanding Attitudes and Predicting Social Behavior*, Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Aldenderfer M.S., Blashfield R.K. (1984) *Cluster Analysis*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-044, Beverly Hills, CA: Sage.
- Alt M. (1990) *Exploring Hyperspace. A Non-Mathematical Explanation of Multivariate Analysis*, McGraw-Hill, New York - London.
- Amaturo E. (1989) *Analyse des données e analisi dei dati nelle scienze sociali*, Centro Scientifico Editore, Torino.
- Andersen E.B. (1972) "The Numerical Solution of a Set of Conditional Estimation Equations", in *Journal of the Royal Statistical Society*, Serie B, 34.
- Andersen E.B. (1973) "A Goodness of Fit Test for the Rasch Model" in *Psychometrika*, 38.
- Anderson T.W. (1958) *An Introduction to Multivariate Statistical Analysis*, John Wiley & Sons, Inc., New York, London, Sidney.
- Andrews, F.M. and S.B. Withey (1976) *Social Indicators of Well-being: Americans' Perceptions of Life Quality*, Plenum Press, New York-London.
- Andrich D. (1988) *Rasch Models for Measurement*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-068, Newbury Park, CA: Sage.
- Arcuri L., Flores D'Arcas G.B. (1974) *La misura degli atteggiamenti*, Martello - Giunti.
- Aureli Cutillo E, e E. Koch-Weser Ammassari (eds) (1977) *Socializzare la statistica*, Università degli Studi "La Sapienza", Roma.
- Asher H.B. (1983) *Causal modelling*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-003, Newbury Park, CA: Sage.
- Bailey K.D. (1994) *Typologies and Taxonomies. An Introduction to Classification Techniques*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-102, Thousand Oaks, CA: Sage.
- Bartholomew D.J. (1996) *The Statistical Approach to Social Measurement*, Academic Press, San Diego – London.
- Bartholomew, D.J. and M. Knott (1999) *Latent Variable Models and Factor Analysis*, Arnold, London-Sydney-Auckland.
- Bejar I.I. (1983) *Achievement testing. Recent Advances*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-036, Newbury Park, CA: Sage.
- Biemer P.P., Groves R.M., Lyberg L.E., Mathiowetz N.A., Sudman S. (1991) *Measurement Errors in Surveys*, John Wiley & Sons, Inc., New York, Chichester, Brisbane, Toronto, Singapore.
- Blalock H.M. jr. (1961) *Causal Inferences in Nonexperimental Research*, Chapel Hill, Nc., University Press; trad. it. *L'analisi causale in sociologia*, Marsilio Editori, Padova, 1967.
- Blalock H.M. jr. ed. (1974) *Measurement in the Social Sciences. Theories and Strategies*, Aldine Publishing Company, Chicago.
- Blalock, H.M. (1982) *Conceptualization and Measurement in the Social Sciences*, Sage Publications, Beverly Hills, CA.
- Bock R.D., M. Aitkin (1981) "Marginal Maximum Likelihood Estimation of Item Parameters: Application of an EM algorithm" in *Psychometrika*, 46.
- Bolasco S. (1999) *Analisi multidimensionali dei dati. Metodi, strategie e criteri di interpretazione*, Carocci, Roma.
- Borg I., Shye S. (1995) *Facet Theory. Form and Content*, Advanced Quantitative Techniques in the Social Sciences Series, Vol. 5, SAGE Publications, Thousand Oaks - London - New Delhi.
- Bohrstedt G.W., Knoke D. (1994) *Statistics for Social Data Analysis*, Peacock P., trad. it. *Statistica per la ricerca sociale*, Il Mulino, Bologna, 1998.
- Bruschi A. (1999) *Metodologia delle scienze sociali*, Bruno Mondadori, Milano.
- Campbell, D T & Fiske, D W. (1959) "Convergent and discriminant validation by the multitrait-

- multimethod matrix”, *Psychological Bulletin*, 56:81-105
- Campbell D.T., Russo M.J. (2001) *Social Measurement*, SAGE Publications, London.
- Capozza D. (1977) *Il differenziale semantico*, Patron Editore, Bologna - Padova.
- Carmines E.C., Zeller R.A. (1992) *Reliability and Validity Assessment*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-017, Newbury Park, CA:Sage.
- Charnes, A., W.W. Cooper, and E. Rhodes (1978) “Measuring the Efficiency of Decision Making Units”, *European Journal of Operational Research*, 2(6), pp. 429-444.
- Cooley W.W., Lohnes P.R. (1971) *Multivariate data analysis*, John Wiley & Sons, Inc., New York, London, Sidney.
- Coombs C.H. (1950) “Psychological scaling without a unit of measurement”, *Psychological Review*, 57, 148-158.
- Coombs C.H. (1953) “Theory and Methods of Social Measurements” in L. Festinger and D. Katz (eds.) *Research Methods in the Behavioral Sciences*, New York: Dryden Press.
- Coombs C.H. (1964) *A theory of Data*, Ann Arbor, MI: Mathesis.
- Corbetta P. (1992) *Metodi di analisi multivariata per le scienze sociali*, Il Mulino, Bologna.
- Corbetta P. (2003) *Metodologia e tecniche della ricerca sociale*, Il Mulino, Bologna.
- Cortier J.E. (1996) *Tree models of similarity and association*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-112, Thousand Oaks, CA:Sage.
- Cox T.F., Cox M.A.A. (1994) *Multidimensional scaling*, Chapman & Hall, London.
- Cronbach L. J., P. E. Meehl (1955) “Construct validity in psychological tests”, *Psychological Bulletin*, 52, 281-302. <http://psychclassics.yorku.ca/Cronbach/construct.htm#f1>.
- Delli Zotti G. (1985) "Tipologia delle matrici utilizzate nella ricerca sociale" in *Rassegna Italiana di Sociologia*, Anno XXVI, n. 2.
- Del Vecchio F. (1995) *Scale di misura e indicatori sociali*, Caccucci, Bari.
- De Sandre P. (1972) *Classificazione e misura nella ricerca sociale*, CLEUP, Padova, 2nd Ed.
- De Vellis R. (1991) *Scale development. Theory and Applications*, Applied Social Research Methods Series, vol. 26, SAGE Publications, London.
- Edward W., Newman J.R. (1982) *Multiattribute Evaluation*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-026, Newbury Park, CA:Sage.
- Fishbein, M., I. Ajzen, I. (1975) *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
<http://www.people.umass.edu/ajzen/f&a1975.html>
- Flament C. (1976) *L'analyse booléenne de questionnaire*, Mouton Éditeur, Paris, La Haye.
- Galtung J. (1967) *Theory and Methods of Social Research*, London, Allen & Unwin.
- Ghiselli E.E. (1964) *Theory of Psychological Measurement*, McGraw-Hill, New York-London.
- Giampaglia G. (1990) *Lo scaling unidimensionale nella ricerca sociale*, Liguori Editore, Napoli.
- Groves, R.M. (1989) *Survey Errors and Survey Costs*, John Wiley & Sons, Inc., New York, Chichester, Brisbane, Toronto, Singapore.
- Guilford J.P. (1954) *Psychometric methods*, McGraw-Hill, New York-London.
- Guttman L. (1945) “Questions and answers about scale analysis”, Research Branch, Information and Education Division, Army Service Forces, Report D-2.
- Guttman L. (1947) "On Festinger's Evaluation of Scale Analysis", in *Psychological Bulletin*, 44.
- Hair J.F. jr., Anderson R.E., Tatham R.L., Black W.C. (1998, 5th ed.) *Multivariate Data Analysis*, Prentice-Hall Inc., Upper Saddle River, New Jersey.
- Hambleton R.K., Swaminathan H., Rogers H.J. (1991) *Fundamentals of item response theory*, Measurement Methods for the Social Sciences series, vol. 2, SAGE Publications, London.
- Heise D.R. (1970) “The semantic differential and attitude research”, in *Attitude Measurement*, Gene F. Summers (ed.), Chicago: Rand Mc Nally
<http://www.indiana.edu/~socpsy/papers/AttMeasure/attitude.htm>
- Jacoby W.G. (1991) *Data Theory and Dimensional Analysis*, Sage University Paper Series on

- Quantitative Applications in the Social Sciences, series no. 07-078, Newbury Park, CA:Sage.
- Jamison D., M. Sandbu (2001) "WHO ranking of health system performance" in *Science*, 293, 1595-1596.
<http://lgst.wharton.upenn.edu/sandbu/Documents/Science2001.pdf#search=%22WHO%20ranking%20of%20health%20system%20performance%20filetype%3Apdf%22>
- Kalmijn W.M., Veenhoven R. (2005) "'Measuring inequality of happiness in nations'. In search for proper statistics", *Journal of Happiness Studies*, vol. 6, n. 4, pp. 357-396.
- Kim Jae-On, Mueller C.W. (1989a) *Introduction to Factor Analysis: What it is and how to do it*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-013, Newbury Park, CA:Sage.
- Kim Jae-On, Mueller C.W. (1989b) *Factor Analysis: Statistical Methods and Practical Issues*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-014, Newbury Park, CA:Sage.
- Koch W.R., Dodd B.G. (1995) "An Investigation of Procedures for Computerized Adaptive Testing Using the Successive Intervals Rasch Model" in *Educational and Psychological Measurement*, Sage Periodicals Press, London, Vol. 55, N. 6, December 1995, pp. 976-990.
- Kruskal J.B., Wish M. (1978) *Multidimensional Scaling*, Sage University Paper Series on Quantitative
- Laveault D., Zumbo B.D., Gessaroli M.E., Boss M.W. (eds.) (1994) *Modern Theories of Measurement: Problems and Issues*, Edometrics Research Group, University of Ottawa, Ottawa, Canada.
- Lazarsfeld, P.J., N.W. Henry (1968) *Latent Structure Analysis*, Houghton M. Company, Boston.
- Lodge M. (1981) *Magnitude Scaling. Quantitative Measurement of Opinion*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-025, Newbury Park, CA:Sage.
- Lis A., Sambin M. (1977) *Analisi dei cluster*, CLEUP, Padova.
- Long J.S. (1993a) *Confirmatory Factor Analysis. A Preface to LISREL*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-033, Newbury Park, CA:Sage.
- Long J.S. (1993b) *Covariance Structure Models. An Introduction to LISREL*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-034, Newbury Park, CA:Sage.
- Lord F.M. (1952) *A Theory of Test Score* (Psychometric Monograph N.7), Iowa City, IA: Psychometric Society.
- Lord F.M. (1974) "Estimation of Latent Ability and Item Parameters when there are Omitted Responses" in *Psychometrika*, 39.
- Lord F.M. (1980) *Applications of Item Response Theory to Practical Testing Problems*, Hillsdale, NJ: Lawrence Erlbaum.
- Lord F.M. (1984) "Standard Errors of Measurement at Different Ability Levels" in *Journal of Educational Measurement*, 21.
- Lord F.M., M.R. Novick (1968) *Statistical Theories of Mental Test Scores*, Reading, MA: Addison-Wesley.
- Louviere J.J. (1988) *Analyzing decision making: metric conjoint analysis*, Sage, Newbury Park
- Ludlow L.H., Haley S.M. (1995) "Rasch Model Logits: Interpretation, Use and Trasformation" in *Educational and Psychological Measurement*, Sage Periodicals Press, London, Vol. 55, N. 6, pp. 967-975.
- Maggino F. (2003) *Method effect in the measurement of subjective dimensions*, Firenze University Press, Archivio E-Prints, Firenze.
- Maggino F. (2004a) *La misurazione nella ricerca sociale. Teorie, strategie, modelli*, Firenze University Press, Archivio E-Prints, Firenze.

- Maggino F. (2004b) *I modelli di scaling. Confronto tra ipotesi complesse per la misurazione del soggettivo*, Firenze University Press, Archivio E-Prints, Firenze.
- Maggino F. (2005) *L'analisi dei dati nell'indagine statistica*, Firenze University Press, Firenze.
- Maggino F. (2007) *La rilevazione e l'analisi statistica del dato soggettivo*, Firenze University Press, Firenze.
- Malhotra N.K. (1996) *Marketing research: an applied orientation*, Prentice-Hall International, Inc., Englewood Cliffs, New Jersey
- Marradi A. (1980) *Concetti e metodi per la ricerca sociale*, La Giuntina, Firenze.
- Marradi A. (1981) "Factor analysis as an aid in the formation and refinement of empirically useful concepts", in E.F. Borgatta - D.J.Jackson (ed.), *Factor Analysis and Measurement in Sociological Research*, SAGE Publications, London.
- Marradi A. (1990) "Fedeltà di un dato, affidabilità di una definizione", in *Rassegna Italiana di Sociologia*, a. XXXI, n. 1, gennaio-marzo.
- McDonald R.P. (1967) *Non-linear factor analysis* (Psychometric Monograph N.15), Iowa City, IA: Psychometric Society.
- McDonald R.P. (1989) "Future Directions for Item Response Theory", *International Journal of Educational Research*, 13(2).
- McIver J.P., Carmines E.G. (1979) *Unidimensional Scaling*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-024, Newbury Park, CA:Sage.
- McKeown B., Thomas D. (1988) *Q Methodology*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-066, Newbury Park, CA:Sage.
- Misley R.J., R.D. Bock (1984) *BILOG: Maximum Likelihood Item Analysis and Test Scoring with Logistic Models*, Mooresville, IN: Scientific Software.
- Nardo M., M. Saisana, A. Saltelli and S. Tarantola (EC/JRC), A. Hoffman and E. Giovannini (OECD) (2005) *Handbook on Constructing Composite Indicators: Methodology and Userguide*, OECD, Statistics Working Paper.
- Netemeyer R.G., Bearden W.O., Sharma S. (2003) *Scaling Procedures: Issues and applications*, Sage Publications, Thousand Oaks.
- Nunnally J.C. (1978) *Psychometric theory*, McGraw-Hill, New York - London.
- Osgood C.E., G.J. Suci, P.H. Tannenbaum (1957) *The measurement of meaning*, Urbana, University of Illinois Press, 1957.
- Osterlind S.J. (1983) *Test Item Bias*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-030, Newbury Park, CA:Sage.
- Rasch G. (1960) *Probabilistic Models for Some Intelligence and Attainment Tests*, Copenhagen: Danish Institute for Educational Research.
- Sadocchi S. (1981) *Manuale di analisi statistica multivariata per le scienze sociali*, Franco Angeli Editore, Milano.
- Saisana M., A. Saltelli, S. Tarantola (2005) "Uncertainty and sensitivity techniques as tools for the analysis and validation of composite indicators", *Journal of the Royal Statistical Society A* 168(2): 1-17.
- Saltelli A., S. Tarantola, F. Campolongo, M. Ratto (2004) *Sensitivity Analysis in Practice. A Guide to Assessing Scientific Models*, John Wiley & Sons publishers.
<http://webfarm.jrc.cec.eu.int/uasa/doc/forum-tutorial/WU082-FM.pdf>
- Saris W.E., Stronkhorst L.H. (1990) *Causal Modelling in Nonexperimental Research. An introduction to the LISREL Approach*, Sociometric Research Foundation, Amsterdam.
- Sharpe A., J. Salzman (2004) *Methodological Choices Encountered in the Construction of Composite Indices of Economic and Social Well-Being*, Center for the Study of Living Standards, Ottawa, CAN.
- Shye S. (1985) *Multiple Scaling. The Theory and Application of Partial Order Scalogram Analysis*, North-Holland, Amsterdam - New York - Oxford.
- Siegel S. e N.J.Castellan j. (1952, ed. it. 1992) *Statistica non parametrica*, Mc-Graw-Hill Italia.

- Sijtsma K., Molenaar I.W. (2002) *Introduction to Nonparametric Item Response Theory*, Measurement Methods for the Social Sciences series, vol. 5, SAGE Publications, London.
- Spector P.E. (1992) *Summated Rating Scale Construction. An Introduction*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-082, Newbury Park, CA:Sage.
- Stevens, S.S. (1946) "On the theory of scales of measurement", in *Science*, 103, 677-680.
- Stevens, S.S. (1951) "Mathematics, measurement and psychophysics", in S.S. Stevens (Ed.), *Handbook of experimental psychology* (pp. 1-49). New York: Wiley.
- Stevens, S.S. (1957) "On the psychophysical law", in *Psychological Review*, 64, 153-181.
- Stoker T M (1993) 'Empirical approaches to the problem of aggregation over individuals', *Journal of Economic Literature*, XXXI, 1827-1874.
- Sullivan J.L., Feldman S. (1981) *Multiple Indicators. An Introduction*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-015, Newbury Park, CA:Sage.
- Swaminathan H., J.A. Gifford (1982) "Bayesian Estimation in the Rasch Model" in *Journal of Educational Statistics*, 7.
- Swaminathan H., J.A. Gifford (1985) "Bayesian Estimation in the Two-Parameter Logistic Model" in *Psychometrika*, 50.
- Swaminathan H., J.A. Gifford (1986) "Bayesian Estimation in the Three-Parameter Logistic Model" in *Psychometrika*, 51.
- Tarantola S., J. Jesinghaus J., M. Puolamaa M. (2000) "Global sensitivity analysis: a quality assurance tool in environmental policy modeling" in *Sensitivity Analysis* (eds A. Saltelli, K. Chan, M. Scott) pp. 385-397. New York: John Wiley & Sons.
- Tesi G., Antonini E., Ferrucci L., Maggino F., Baroni A. (1990) "La misura dell'autosufficienza nell'anziano", in *Giornale di Gerontologia*, organo ufficiale della Società Italiana di Gerontologia e Geriatria, vol. XXXVIII, n. 7, luglio, Firenze.
- Tesi G., Antonini E., Maggino F. (1993) "La scala di autosufficienza", in *Gli anziani a casa. Uno studio a Dicomano*, Comune di Dicomano, Università di Firenze, Provincia di Firenze, USL 11, I.N.R.C.A.
- Thompson B. ed. (2003) *Score Reliability. Contemporary thinking on reliability issues*, SAGE Publications, London.
- Thurstone, L.L. (1927). *A law of comparative judgement*. *Psychological Review*, 34, 278-286.
- Thurstone, L.L. (1959) *The Measurement of Values*. Chicago, The University of Chicago Press.
- Torgerson W.S. (1958) *Theory and Methods of Scaling*, John Wiley & Sons, Inc., New York, London, Sydney.
- Traub R.E. (1994) *Reliability for the Social Sciences - Theory and Applications*, Measurement Methods for the Social Sciences series, vol. 3, SAGE Publications, London.
- Trochim, W.M. (1999, 2nd ed, 2000) *The Research Methods Knowledge Base*, Internet WWW page, at URL: <http://www.socialresearchmethods.net/kb/index.php>
- Urry V.W. (1974) "Approximations to Item Parameters of Mental Test Models and Their Uses" in *Educational and Psychological Measurement*, 34.
- Veenhoven R. (2005) "Inequality of happiness in nations", *Journal of Happiness Studies*, vol. 6, n. 4, pp. 351-355.
- Velleman, P. F. & Wilkinson, L. (1993) «Nominal, ordinal, interval, and ratio typologies are misleading" in *The American Statistician*, 47(1), 65-72, at URL <http://www.spss.com/research/wilkinson/Publications/Stevens.pdf>
- Weller S.C., Romney A.K. (1990) *Metric Scaling. Correspondence Analysis*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-075, Newbury Park, CA:Sage.
- Werts C.E., Linn R.L., Jöreskog K.G. (1974) 'Quantifying Unmeasured Variables' in Blalock H.M. jr., ed., *Measurement in the Social Sciences. Theories and Strategies*, Aldine Publishing Company, Chicago.

Yoon K.P., Hwang Ching-Lai (1995) *Multiple Attribute Decision Making*, Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-104, Thousand Oaks, CA:Sage.