Three-Mode Bibliography
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References

Abel, R. B. (1991). *Experimental design for multilinear models in spectrofluoroscopy.* Unpublished doctoral dissertation, Ohio State University, Columbus OH.

Abel, R. B., Leurgans, S. E., & Ross, R. T. (1992). *Multilinear models: Experimental design in spectrofluoroscopy.* (Technical report No. 470). Columbus OH: Department of Statistics, Ohio State University.

Achim, A., & Bouchard, S. (1997). Toward a dynamic topographic components model. *Electroencephalography and Clinical Neurophysiology*, *103*, 381–385.

Achim, A., & Marcantoni, W. (1997). Principal component analysis of event-related potentials: Misallocation of variance revisited. *Psychophysiology*, *34*, 597–606.

Adamopoulos, J. (1982). The perception of interpersonal behavior: Dimensionality and importance of the social environment. *Environment and Behavior*, *14*, 29–44.

Adamopoulos, J. (1984). The differentiation of social behavior: Toward an explanation of universal interpersonal structures. *Journal of Cross-Cultural Psychology*, *15*, 487–508.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park: Sage.

Algera, J. A. (1980). *Kenmerken van werk.* Unpublished doctoral dissertation, Leiden University, Leiden, The Netherlands.

Allosio, N., Boivin, P., Bertrand, D., & Courcoux, P. (1997). Characterisaion of barley transformation into malt by three-way factor analysis of near infrared spectra. *Journal of Near Infrared Spectroscopy*, *5*, 157–166.

Alsberg, B. K. (1994). *Development of methods for improved storage and faster computation of large two- and three-mode chemical data sets.* Unpublished doctoral dissertation, Department of Chemistry, University of Bergen, Bergen, Norway.

Alsberg, B. K., & Kvalheim, O. M. (1993). Compression of nth-order data arrays by B-splines. Part 1: Theory. *Journal of Chemometrics*, *7*, 61–73.

Alsberg, B. K., & Kvalheim, O. M. (1994a). Compression of three-mode data arrays by B-splines prior to three-mode principal component analysis. *Chemometrics and Intelligent Laboratory Systems*, *23*, 29–38.

Alsberg, B. K., & Kvalheim, O. M. (1994b). Speed improvement of multivariate algorithms by the method of postponed basis matrix multiplication. Part I: Principal component analysis. *Chemometrics and Intelligent Laboratory Systems*, *24*, 31–42.

Alsberg, B. K., & Kvalheim, O. M. (1994c). Speed improvement of multivariate algorithms by the method of postponed basis matrix multiplication. Part II. Three-mode principal component analysis. *Chemometrics and Intelligent Laboratory Systems*, *24*, 43–54.

Altink, W. M. M., & Born, M. P. (1987). *Achievement strategies in work organizations: Concept analysis and development of a situation-response inventory.* (Unpublished manuscript). Amsterdam, The Netherlands: Free University of Amsterdam.

Altink, W. M. M., & Born, M. P. (1988, 21-26 August). *The practical use of a situation-response inventory on achievement-related behavior in selection and training situations.* Paper presented at the 46th Annual Convention of the International Council of Psychologists., Singapore.

Altink, W. M. M., Born, M. P., & Algera, J. A. (1987). De SR-vragenlijstmethode bij organisatievraagstellingen: Nieuwe mogelijkheden voor diagnostiek van werkgedrag? [The method of SR-inventory in workorganizations: New possibilities for diagnostics of work-attitude?]. *Gedrag en Organisatie, 1,* 38–53.

Amato, V. (1989). Autoregressive process for three-way data matrices. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 383–389). Amsterdam: Elsevier.

Amato, V. (1992). Special vec for a diagonal form of a group of matrices. *Statistica Applicata, 4,* 653–657.

Anderson, C. J. (1996). The analysis of three-way contingency tables by three-mode association models. *Psychometrika, 61,* 465–483.

Andersson, C. A. (1999). Multiway data in chemometrics: Exploratory data analysis in chemistry with soft multi-linear modelling. *Bulletin of the International Statistical Institute, 58,* 215–218.

Andersson, C. A. (2000a). *Exploratory multivariate data analysis with applications in food technology.* Kopenhagen, Denmark: DSR Grafik.

Andersson, C. A., & Bro, R. (1998). Improving the speed of multi-way algorithms: Part I. Tucker3. *Chemometrics and Intelligent Laboratory Systems, 42,* 93–103.

Andersson, C. A., & Henrion, R. (1999). A general algorithm for obtaining simple structure of core arrays in *N*-way PCA with application to fluorometric data. *Computational Statistics and Data Analysis, 31,* 255–278.

Andersson, C. A., Munck, L., Henrion, R., & Henrion, G. (1997). Analysis of *N*-dimensional data arrays from fluorescence spectroscopy of an intermediary sugar product. *Fresenius Journal of Analytical Chemistry, 359,* 138–142.

Andersson, G. G., Dable, B. K., & Booksh, K. S. (1999). Weighted parallel factor analysis for calibration of HPLC-UV/VIS spectrometers in the presence of Beer's law deviations. *Chemometrics and Intelligent Laboratory Systems, 49,* 195–213.

Antalek, B., & Windig, W. (1996). Generalized rank annihilation method applied to a single multicomponent pulsed gradient spin echo NMR data set. *Journal of the American Chemical Society, 118,* 10331–10332.

Appellof, C. J., & Davidson, E. R. (1981). Strategies for analyzing data from video fluorometric monitoring of liquid chromatographic effluents. *Analytical Chemistry, 53,* 2053–2056.

Appellof, C. J., & Davidson, E. R. (1983). Three-dimensional rank annihilation for multi-component determinations. *Analytica Chimica Acta, 146,* 9–14.

Arabie, P., & Boorman, S. A. (1973). Multidimensional scaling of measures of distance between partitions. *Journal of Mathematical Psychology, 10,* 148–203.

Arabie, P., & Carroll, J. D. (1980a). *How to use MAPCLUS, a computer program for fitting the ADCLUS model.* (Technical report). Murray Hill, New Jersey: Bell Laboratories.

Arabie, P., & Carroll, J. D. (1980b). MAPCLUS: A mathematical programming approach to fitting the ADCLUS model. *Psychometrika, 45,* 211–235.

Arabie, P., Carroll, J. D., & DeSarbo, W. S. (1987a). *Three-way scaling and clustering.* Beverly Hills: Sage.

Arabie, P., Carroll, J. D., & DeSarbo, W. S. (1990). *San-gen deta no bunseki: Tajigen shakudo koseiho to kurasuta bunseikiho .* [Three-way scaling and clustering.]. Tokyo: Kyoritsu Shuppan.

Arabie, P., Carroll, J. D., DeSarbo, W. S., & Wind, J. (1981). Overlapping clustering: A new method for product positioning. *Journal of Marketing Research, 18,* 310–317.

Arabie, P., & Maschmeyer, C. (1988). Some current models for the perception and judgment of risk. *Organizational Behavior and Human Decision Processes, 41,* 300–329.

Arabie, P., Mashmeyer, C. J., & Carroll, J. D. (1987). Impact scaling: Method and application. *Technological Forecasting and Social Change, 32,* 245–272.

Arboleda, M. L. (1991). *Case deletion for multilinear models.* Unpublished doctoral dissertation, Ohio State University, Columbus OH.

Arcelay, A. R., Ross, R. T., & Ezzeddine, B. M. (1988). Photosystem I generates a free-energy change of 0.7 electron volts or less. *Biochimica et Biophysica Acta, 936,* 199–207.

Aruga, R., Gastaldi, D., Negro, G., & Ostacoli, G. (1995). Pollution of a river basin and its evolution with time studied by multivariate statistical analysis. *Analytica Chimica Acta, 310,* 15–25.

Azubel, M., Fernández, F. M., Tudino, M. B., & Troccoli, O. E. (1999). Novel application and comparison of multivariate calibration for the simultaneous determination of Cu, Zn and Mn at trace levels using flow injection diode array spectrophotometry. *Analytica Chimica Acta, 398,* 93–102.

Baerwald, T. J. (1976). The emergence of a new "downtown"'. *The Geographical Review, 68,* 308–318.

Bailey, R. A., & Rowley, C. A. (1993). Maximal rank of an element of a tensor product. *Linear Algebra and Its Applications, 182,* 1–7.

Baltink, G. J. H. (1969). Driemodale faktoranalyse in een differentieelpsychologisch onderzoek naar de beoordeling van abstracte schilderijen. *Nederlands Tijdschrift voor de Psychologie, 24,* 529–540.

Barbieri, P., Adami, G., Piselli, S., Gemiti, F., & Reisenhofer, E. (2002). A three-way principal factor analysis for assessing the time variability of freshwaters related to a municipal water supply. *Chemometrics and Intelligent Laboratory Systems, 60,* 89–100.

Barbieri, P., Andersson, C. A., Massart, D. L., Predonzani, S., Adami, G., & Reisenhofer, E. (1999). Modeling bio-geochemical interactions in the surface waters of the gulf of Trieste by three-way principal component analysis (PCA). *Analytica Chimica Acta, 398,* 227–235.

Barré, A., & Fichet, B. (1985). Analyse des correspondances et rotations procustéennes représentation hiérarchique et ordres compatibles. *Statistiques et Analyse de Données, 10,* 16–26.

Bartussek, D. (1973). Zur Interpretation der Kernmatrix in der dreimodalen Faktorenanalyse von R. L. Tucker [On the interpretation of the core matrix in the three-mode factor analysis of R. L. Tucker]. *Psychologische Beiträge, 15,* 169–184.

Bartussek, D. (1980). Die dreimodale Faktorenanalyse als Methode zur Bestimmung von EEG-Frequenzbändern. [Three-mode factor analysis as a method of determining EEG frequency bands]. In S. Kubicki, W. M. Herrmann, & G. Laudahn (Eds.), *Faktorenanalyse und Variablenbildung aus dem Elektroenzephalogramm.* (pp. 15–26). Stuttgart, FRG: Gustav Fischer Verlag.

Bartussek, D., & Gräser, H. (1980). Ergebnisse dreimodaler Faktorenanalysen von EEG-Frequenzspektren. [Results of three-mode factor analyses of EEG frequency spectra]. In S. Kubicki, W. M. Herrmann, & G. Laudahn (Eds.), *Faktorenanalyse und Variablenbildung aus dem Electroenzephalogramm.* (pp. 79–87). Stuttgart, FRG: Gustav Fischer Verlag.

Basford, K. E., Federer, W. T., & Miles-McDermott, N. J. (1987). Illustrative examples of clustering using the mixture method and two comparable methods from SAS. *Computational Statistics Quarterly, 4,* 219–233.

Basford, K. E., Greenway, D. R., & McLachlan, G. J. (1994). *Standard errors fitted component means of normal mixture models.* (Research report No. 27). Brisbane, Australia: Department of Mathematics, University of Queensland.

Basford, K. E., & Kroonenberg, P. M. (1989). An investigation of multi-attribute genotype response across environments using three-mode principal component analysis. *Euphytica, 44,* 109–123.

Basford, K. E., Kroonenberg, P. M., & Cooper, M. (1996). Three-mode analytical methods for crop improvement programs. In M. Cooper & G. L. Hammer (Eds.), *Plant adaptation and crop improvement.* (pp. 291–305). Wallingford, UK: CAB International.

Basford, K. E., Kroonenberg, P. M., & DeLacy, I. H. (1991). Three-way methods for multiattribute genotype by environment data: An illustrated partial survey. *Field Crops Research*, *27*, 131–157.

Basford, K. E., Kroonenberg, P. M., DeLacy, I. H., & Lawrence, P. K. (1990). Multiattribute evaluation of regional cotton variety trials. *Theoretical and Applied Genetics*, *79*, 225–234.

Basford, K. E., & McLachlan, G. J. (1985a). Estimation of allocation rates in a cluster analysis context. *Journal of the American Statistical Association*, *80*, 286–293.

Basford, K. E., & McLachlan, G. J. (1985b). Likelihood estimation with normal mixture models. *The Journal of the Royal Statistical Society*, *34*, 282–289.

Basford, K. E., & McLachlan, G. J. (1985c). The mixture method of clustering applied to three-way data. *Journal of Classification*, *2*, 109–125.

Baxter, D. C., & Ohman, J. (1990). Multicomponent standard additions and partial least-squares modeling: A multivariate calibration approach to the resolution of spectral interferences in graphite-furnace atomic-absorption spectrometry. *Spectrochimica Acta Part B - Atomic Spectroscopy*, *45*, 481–491.

Bechmann, I. E. (1997). Second-order data by flow injection analysis with spectrophotometric diode-array detection and incorporated gel-filtration chromatographic column. *Talanta*, *44*, 585–591.

Bécue-Bertaut, M. (1992). Three-way textual analysis. In A. Rizzi, M. Vichi, & H.-H. Bock (Eds.), *Advances in data science and classification.* (pp. 457–464). Berlin: Springer.

Beem, A. L., & Brugman, D. (1985). An exploration of the structure of classroom behavior during values development lessons. *Studies in Educational Evaluation*, *11*, 339–357.

Beffy, J. L. (1992). Application de l'analyse en composantes principales à trois modes pour l'étude physico-chimique d'un écosystème lacustre d'altitude: Perspectives en écologie. [Application of three-mode principal component analysis for a chemo-physical study of the ecosystem of a high altitude lake: Perspectives in ecology]. *Revue Statistique Appliquée*, *40*, 37–56.

Beffy, J. L. (1993). *Approche des structures ternaires en écologie par l'analyse en composantes principales à trois modes.* Unpublished doctoral dissertation, University Claude Bernard, Lyon I , France.

Belk, R. W. (1974). An exploratory assessment of situational effects in buyer behavior. *Journal of Marketing Research*, *11*, 156–163.

Belk, R. W. (1979). Gift-giving behavior. In J. N. Sheth (Ed.), *Research in marketing, Vol. 2.* (pp. 95–126). Greenwich, CT: JAI Press Inc.

Bell, T. S., Dirks, D. D., & Carterette, E. C. (1989). Interactive factors in consonant confusion patterns. *Journal of the Acoustical Society of America*, *85*, 339–346.

Bener, A. (1982). Décomposition des interactions dans une correspondance multiple (inter. corr. mult.). *Les Cahiers de l'Analyse des Données*, *7*, 25–32.

Bennani Dosse, M. (1995). Positionnement multidimensionnel d'un tableau à 3 voies. *Revue Statistique Appliquée*, *43*, 63–75.

Bentler, P. M., & Lee, S.-Y. (1979). A statistical development of three-mode factor analysis. *British Journal of Mathematical and Statistical Psychology*, *32*, 87–104.

Bentler, P. M., Poon, W.-Y., & Lee, S.-Y. (1988). Generalized multimode latent variable models: Implementation by standard programs. *Computational Statistics and Data Analysis*, *6*, 107–118.

Bentler, P. M., & Weeks, D. G. (1979). Interrelations among models for the analysis of moment structures. *Multivariate Behavioral Research*, *14*, 169–186.

Bentler, S.-Y., P. M. andand Lee. (1978). Statistical aspects of a three-mode factor analysis model. *Psychometrika*, *43*, 343–352.

Bernard, M. C., & Lavit, C. (1985). Présentation des données. *Statistiques et Analyse des Données*, *10*, 11–15.

Bernstein, A. L., & Wicker, F. W. (1969). A three-mode factor analysis of the concept of novelty. *Psychonomic Science*, *14*, 291–292.

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Berrueta, L. A., Fernandez, L. A., & Vicente, F. (1991). Fluorim: A computer program for the automated data collection and treatment using commercial spectrofluorimeters. *Computers and Chemistry, 15*, 307–312.

Bezemer, E., & Rutan, S. C. (2002). Three-way alternating least squares using three-dimensional tensors in MATLAB. *Chemometrics and Intelligent Laboratory Systems, 60*, 239–251.

Bhattacharya, P., & Mukherjee, N. P. (1994). On the representation of uncertain information by multidimensional arrays. *IEEE Transactions on Systems, Man, and Cybernetics, 24*, 107–111.

Bijlsma, S. (2000). *Estimating rate constants of chemical reactions using spectroscopy.* Unpublished doctoral dissertation, Department of Analytical Chemistry, University of Amsterdam, Amsterdam.

Bijlsma, S., Louwerse, D. J., & Smilde, A. K. (1999). Estimating rate constants and pure UV-vis spectra of a two-step reaction using trilinear models. *Journal of Chemometrics, 13*, 311–329.

Bijlsma, S., Louwerse, D. J., Windig, W., & Smilde, A. K. (1998). Rapid estimation of rate constants using on-line SW-NIR and trilinear models. *Analytica Chimica Acta, 376*, 339–355.

Bloxom, B. (1968). A note on invariance in three-mode factor analysis. *Psychometrika, 33*, 347–350.

Bloxom, B. (1984). Tucker's three-mode factor analysis model. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 104–121). New York: Praeger.

Blyshak, L. A., Patonay, G., & Warner, I. M. (1989). Multidimensional fluorescence analysis of cyclodextrin solvent-extraction systems. *ACS Symposium Series, 383*, 167–179.

Boik, R. J. (1989). Three-mode principal components: Upper percentiles of maximum root trace. In *ASA Proceedings of Statistical Computing Section 1983.* (pp. 193–197). Place unknown.

Boik, R. J. (1990). A likelihood ratio test for three-mode singular values: Upper percentiles and an application to three-way ANOVA. *Computational Statistics and Data Analysis, 10*, 1–9.

Boik, R. J. (1993). Review of H. A. L. Kiers "Three-way methods for the analysis of qualitative and quantitative two-way data". *Psychometrika, 58*, 149–152.

Boik, R. J., & Marasinghe, M. G. (1989). Analysis of nonadditive multiway classifications. *Journal of the American Statistical Association, 84*, 1059–1064.

Bolasco, S. (1985). *Materiali bibliographici e informatici sull'analisi di matrici tridimensionali [bibliographic material and information on the analysis of three-way matrices].* (Research Report No. B1). Rome, Italy: Department of Statistics, Probability and Statistical Applications, University of Rome 'La Sapienza'.

Bolasco, S. (1986). Per una teoria sulla costruzione e l'analisi delle matrici a tre modi [Towards a theory on the constraction and the analysis of three-mode matrices]. In *Proceedings of the 33rd Meeting of the Italian Statistical Society, Vol. 1.* (pp. 183–195). Bari.

Bolasco, S., & Coppi, R. (1987, 23-25 September 1987). *Primi risultati sull'analisi strutturale e dinamica dell'occupazione in cinque regioni italiane dal 1978 al 1986.* [First results of structural and dynamic analyses of occupations in five Italian regions from 1978 to 1986]. Paper presented at 'Forze di lavoro: Disegno dell'indagine e analisi strutturali'., Bressanone.

Bolton, B. (1988). Multivariate approaches to human learning. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate experimental psychology.* (Second edition ed., pp. 789–819). New York: Plenum Press.

Booksh, K., Henshaw, J. M., Burgess, L. W., & Kowalski, B. R. (1995). A second-order standard addition method with application to calibration of a kinetics-spectroscopic sensor for quantitation of trichloroethylene. *Journal of Chemometrics, 9*, 263–282.

Booksh, K. S., & Kowalski, B. R. (1994a). Comments on the DATa ANalysis (DATAN) algorithm and rank annihilation factor analysis for the analysis of correlated spectral data. *Journal of Chemometrics*, *8*, 287–292.

Booksh, K. S., & Kowalski, B. R. (1994b). Theory of analytical chemistry. *Analytical Chemistry*, *66*, 782A–791A.

Booksh, K. S., & Kowalski, B. R. (1997). Calibration method choice by comparison of model basis functions to the theoretical instrumental response function. *Analytica Chimica Acta*, *348*, 1–9.

Booksh, K. S., Lin, Z. H., Wang, Z. Y., & Kowalski, B. R. (1994). Extension of trilinear decomposition method with an application to the flow probe sensor. *Analytical Chemistry*, *66*, 2561–2569.

Booksh, K. S., Muroski, A. R., & Myrick, M. L. (1996). Single-measurement excitation/emission matrix spectrofluorometer for determination of hydrocarbons in ocean water. 2. Calibration and quantitation of naphthalene and styrene. *Analytical Chemistry*, *68*, 3539–3544.

Boorman, S. A., & Arabie, P. (1972). Structural measures and the method of sorting. In R. N. Shepard, A. K. Romney, & S. B. Nerlove (Eds.), *Multidimensional scaling: theory and applications in the behavioral sciences, 1: Theory.* (pp. 225–249). New York: Seminar Press.

Boqué, R., & Smilde, A. K. (1999). Monitoring and diagnosing batch processes with multiway covariates regression models. *AIChE Journal*, *45*, 1504–1520.

Borg, I., & Lingoes, J. (1987). *Multidimensional similarity structure analysis.* New York: Springer Verlag.

Borg, I., & Lingoes, J. C. (1978). What weight should weights have in individual differences scaling? *Quality and Quantity*, *12*, 223–237.

Bouroche, J.-M., & Dussaix, A.-M. (1975). Several alternatives for three-way data analysis. *Metra*, *14*, 299–319.

Bove, G., & Di Ciaccio, A. (1989). Comparisons among three factorial methods for analysing three-mode data. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 103–113). Amsterdam: Elsevier.

Bove, G., & Di Ciaccio, A. (1994). A user-oriented overview of multiway methods and software. *Computational Statistics and Data Analysis*, *18*, 15–37.

Bramston, P., Snyder Jr, C. W., Leah, J. A., & Law, H. G. (1983). Assessment of assertiveness in the intellectually handicapped. *Multivariate Experimental Clinical Research*, *6*, 143–159.

Bridgman, R. P., Snyder Jr, C. W., & Law, H. G. (1981). Individual differences in conceptual behaviour following manipulated controllability. *Personality and Individual Differences*, *2*, 197–205.

Bro, R. (1996). Multiway calibration. Multilinear PLS. *Journal of Chemometrics*, *10*, 47–61.

Bro, R. (1997). PARAFAC. Tutorial and applications. *Chemometrics and Intelligent Laboratory Systems*, *38*, 149–171.

Bro, R. (1998). *Multi-way analysis in the food industry. Models, algorithms, and applications.* Unpublished doctoral dissertation, University of Amsterdam, Amsterdam, The Netherlands.

Bro, R. (1999). Exploratory study of sugar production using fluorescence spectroscopy and multi-way analysis. *Chemometrics and Intelligent Laboratory Systems*, *46*, 133–147.

Bro, R., & Andersson, C. A. (1998). Improving the speed of multiway algorithms. Part II: Compression. *Chemometrics and Intelligent Laboratory Systems*, *42*, 105–113.

Bro, R., Andersson, C. A., & Kiers, H. A. L. (1999). PARAFAC2 - Part II. Modeling chromatic data with retention time shifts. *Journal of Chemometrics*, *13*, 295–309.

Bro, R., & De Jong, S. (1997). A fast non-negativity-constrained least squares algorithm. *Journal of Chemometrics*, *11*, 393–401.

Bro, R., & Heimdal, H. (1996). Enzymatic browning of vegetables. Calibration and analysis of variance by multiway methods. *Chemometrics and Intelligent Laboratory Systems*, *34*, 85–102.

6

Bro, R., & Kiers, H. A. L. (1997). TRICAP: Three-way methods in chemistry and psychology, Lake Chelan, WA, USA, 4-9 May 1997. *Journal of Chemometrics*, *11*, 463–466.

Bro, R., & Sidiropoulos, N. D. (1998). Least squares algorithms under unimodality and non-negativity constraints. *Journal of Chemometrics*, *12*, 223–247.

Bro, R., Smilde, A. K., & De Jong, S. (2001). On the difference between low-rank and subspace approximation: improved model for multi-linear PLS Regression. *Chemometrics and Intelligent Laboratory Systems*, *58*, 3–13.

Bro, R., Workman Jr, J. J., Mobley, P. R., & Kowalski, B. (1997). Review of chemometrics applied to spectroscopy: 1985-95, Part 3 - Multi-way analysis. *Applied Spectroscopy Reviews*, *32*, 237–261.

Brockhoff, P. M., Hirst, D., & Naes, T. (1996). Analysing individual profiles by three-way factor analysis. In T. Naes & E. Risvik (Eds.), *Multivariate analysis of data in sensory science.* (pp. 307–342). Amsterdam: Elsevier.

Brouwer, P. (1985). *The TUCKALS-PARAFAC connection.* (Unpublished Master's thesis). Leiden, The Netherlands: Department of Education, Leiden University.

Brouwer, P., & Kroonenberg, P. M. (1991). Some notes on the diagonalization of extended three-mode core matrices. *Journal of Classification*, *8*, 93–98.

Brown, S. D. (1998). Information and data handling in chemistry and chemical engineering: the state of the field from the perspective of chemometrics. *Computers and Chemical Engineering*, *23*, 203–216.

Brown, S. D., Bear, R. S., & Blank, T. B. (1992). Chemometrics. *Analytical Chemistry*, *64*, 22r–49r.

Browne, M. W. (1984). The decomposition of multitrait-multimethod matrices. *British Journal of Mathematical and Statistical Psychology*, *37*, 1–21.

Browne, M. W. (1989). Relationships between an additive model and a multiplicative model for multitrait-multimethod matrices. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 507–520). Amsterdam: Elsevier.

Burdick, D. S. (1992). Comment. Discussion of the article "Multilinear models: Applications in spectroscopy". *Statistical Science*, *7*, 314–315.

Burdick, D. S. (1995). Tutorial. An introduction to tensor products with applications to multiway data analysis. *Chemometrics and Intelligent Laboratory Systems*, *28*, 229–237.

Burdick, D. S., Tu, X. M., McGown, L. B., & Millican, D. W. (1990). Resolution of multi-component fluorescent mixtures by analysis of the excitation-emission-frequency array. *Journal of Chemometrics*, *4*, 15–28.

Burgess, L. W. (1995). Absorption-based sensors. *Sensors and Actuators B - Chemical*, *29*, 10–15.

Burnham, A. J., Macgregor, J. F., & Viveros, R. (1999). A statistical framework for multivariate latent variable regression methods based on maximum likelihood. *Journal of Chemometrics*, *13*, 49–65.

Bus, A. G., & Kroonenberg, P. M. (1982). *Reading instruction and learning to read: A longitudinal study.* (Internal report No. SOL/82-08). Groningen , The Netherlands: Department of Education , University of Groningen.

Cant, R. G. (1971). Changes in the location of manufacturing in New Zealand 1957-1968: An application of three-mode factor analysis. *New Zealand Geographer*, *27*, 38–55.

Cant, R. G. (1975). Three-mode factor analysis as applied to industrial location data. In L. Collins & D. F. Walker (Eds.), *Locational dynamics of manufacturing activity.* (pp. 201–225). London: Wiley.

Carlier, A. (1985a). Analyse des évolutions sur tables de contingence: Quelques aspects opérationels [Analysis of evolutions in contingency tables: Some practical aspects]. In E. D. al. (Ed.), *Data analysis and informatics 4.* (pp. 421–428). Amsterdam: North Holland.

Carlier, A. (1985b). Application de l'analyse factorielle des évolutions et de l'analyse intra-periodes [An application of factorial analysis of evolutions and the analysis between occasions]. *Statistiques et Analyse de Données*, *10*, 27–53.

Carlier, A. (1986). Factor analysis of evolution and cluster methods on trajectories. In F. de Antoni, N. Lauro, & A. Rizzi (Eds.), *Compstat 1986.* (pp. 140–145). Heidelberg: Physica Verlag.

Carlier, A. (1989). *L'Analyse des évolutions de tables de contingence.* (Technical report No. 689). Montréal, Canada: Department of Computer Science and Operational Research, University of Montréal.

Carlier, A. (1995). *Examples of 3-way correspondence analysis.* (, Technical report). Toulouse, France: Laboratoire of Statistique et Probabilité, Université Paul-Sabatier.

Carlier, A., & Ewing, G. (1992). Longitudinal analysis of contingency tables with application to demographic data. *Computational Statistics*, *7*, 329–353.

Carlier, A., & Kroonenberg, P. M. (1996). Decompositions and biplots in three-way correspondence analysis. *Psychometrika*, *61*, 355–373.

Carlier, A., & Kroonenberg, P. M. (1998). The case of the French cantons: An application of three-way correspondence analysis. In J. Blasius & M. Greenacre (Eds.), *Visualization of categorical data.* (pp. 253–275). New York: Academic Press.

Carlier, A., Lavit, C., Pagés, M., Pernin, M.-O., & Turlot, J.-C. (1989). A comparative review of methods which handle a set of indexed data tables. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 85–101). Amsterdam: Elsevier.

Carroll, J. D. (1972a). Individual differences and multidimensional scaling. In R. N. Shepard, A. K. Romney, & S. B. Nerlove (Eds.), *Multidimensional scaling: Theory and applications in the behavioral sciences, 1: Theory.* (pp. 105–155). New York: Seminar Press.

Carroll, J. D. (1986). Some multidimensional scaling and related procedures devised at Bell Laboratories with ecological applications. In P. Legendre & L. Legendre (Eds.), *Developments in numerical ecology.* (pp. 65–138). Berlin: Springer.

Carroll, J. D., & Arabie, P. (1980). Multidimensional scaling. *Annual Review of Psychology*, *31*, 607–649.

Carroll, J. D., & Arabie, P. (1982). *How to use INDCLUS, a computer program for fitting individual differences generalization of the ADCLUS model.* (Working paper). Murray Hill, New Jersey: Bell Laboratories.

Carroll, J. D., & Arabie, P. (1983a). INDCLUS: an individual differences generalization of the ADCLUS model and the MAPCLUS algorithm. *Psychometrika*, *48*, 157–169.

Carroll, J. D., & Arabie, P. (1983b). INDCLUS: an individual differences generalization of the ADCLUS model and the MAPCLUS algorithm. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. M. . (Eds.), *Research methods for multimode data analysis.* (pp. 518–534). New York: Praeger.

Carroll, J. D., & Arabie, P. (1996). Multidimensional Scaling. In M. H. Birnbaum (Ed.), *Handbook of perception and cognition, Vol. 3: Measurement, judgment and decision making.* (pp. 179–250). San Diego, CA: Academic Press, Inc.

Carroll, J. D., & Chang, J. J. (1970). Analysis of individual differences in multidimensional scaling via an N-way generalization of "Eckart-Young" decomposition. *Psychometrika*, *35*, 283–319.

Carroll, J. D., & Chang, J. J. (1972, March). *IDIOSCAL: A generalization of INDSCAL allowing IDIOsyncratic reference system as well as an analytic approximation to INDSCAL.* Paper presented at the Spring Meeting of the Classification Society of North America., Princeton NJ.

Carroll, J. D., & Chaturvedi, A. (1995). A general approach to clustering and multidimensional scaling of two-way, three-way, or higher-way data. In R. D. Luce, M. D'Zmura, D. D. Hoffman, G. J. Iverson, & A. K. Romney (Eds.), *Geometric representations of perceptual phenomena: Papers in honor of Tarow Indow on his 70th birthday.* (pp. 295–318). Mahwah, NJ: Erlbaum.

Carroll, J. D., Chaturvedi, A., & Green, P. E. (1994, June). *K-means, K-medians and K-modes: Special cases of partitioning multiway data.* Paper presented at the Annual Meeting of the Classification Society of North America., Houston.

Carroll, J. D., Clark, L. A., & DeSarbo, W. S. (1984). The representation of three-way proximity data by single and multiple tree structure models. *Journal of Classification, 1*, 25–74.

Carroll, J. D., & De Soete, G. (1991). Toward a new paradigm for the study of multiattribute choice behavior. Spatial and discrete modeling of pairwise preferences. *American Psychologist, 46*, 342–351.

Carroll, J. D., De Soete, G., & Kamensky, V. (1992). A modified CANDECOMP algorithm for fitting the latent class model: Implementation and evaluation. *Applied Stochastic Models and Data Analysis, 8*, 303–309.

Carroll, J. D., De Soete, G., & Pruzansky, S. (1989). Fitting of the latent class model via iteratively reweighted least squares CANDECOMP with nonnegativity constraints. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 463–472). Amsterdam: Elsevier.

Carroll, J. D., & Green, P. E. (1988). An INDSCAL-based approach to multiple correspondence analysis. *Journal of Marketing Research, 25*, 193–203.

Carroll, J. D., & Green, P. E. (1997). Psychometric methods in marketing research: Part II, Multidimensional scaling. *Journal of Marketing Research, 34*, 193–204.

Carroll, J. D., & Pruzansky, S. (1979). *Use of LINCINDS as a rational starting configuration for INDSCAL.* (Technical report). Murray Hill, NJ: Bell Laboratories.

Carroll, J. D., & Pruzansky, S. (1984). The CANDECOMP-CANDELINC family of models and methods for multidimensional data analysis. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 372–402). New York: Praeger.

Carroll, J. D., & Pruzansky, S. (1986). Discrete and hybrid models for proximity data. In W. Gaul & M. Schader (Eds.), *Classification as a tool of research.* (pp. 47–59). Amsterdam: Elsevier.

Carroll, J. D., Pruzansky, S., & Green, P. E. (1977). *Estimation of the parameters of Lazarsfeld's latent class model by application of canonical decomposition (CANDECOMP) to multi-way contingency tables.* (Technical Memorandum No. 77-1229-7). Murray Hill, NJ: Bell Laboratories.

Carroll, J. D., Pruzansky, S., & Kruskal, J. B. (1980). CANDELINC: A general approach to multidimensional analysis of many-way arrays with linear constraints on parameters. *Psychometrika, 45*, 3–24.

Carroll, J. D., & Winsberg, S. (1995). Fitting an extended INDSCAL model to three-way proximity data. *Journal of Classification, 12*, 57–71.

Carroll, J. D., & Wish, M. (1974). Models and methods for three-way multidimensional scaling. In D. H. Krantz, R. C. Atkinson, R. D. Luce, & P. Suppes (Eds.), *Contemporary developments in mathematical psychology. Vol. 2.* (pp. 57–105). San Francisco: W. H. Freeman.

Casassas, E., Tauler, R., & Marquès, I. (1994). Interactions of H+ and Cu(II) ions with poly(adenylic acid): Study by factor-analysis. *Macromolecules, 27*, 1729–1737.

Casin, P. (1995). L'analyse discriminante de tableaux évolutifs. [Discriminant analysis of longitudinal tables]. *Revue de Statistique Appliquée, 43*, 73–91.

Casin, P. (2001). A generalization of principal component analysis to K sets of variables. *Computational Statistics and Data Analysis, 35*, 417–428.

Cattell, R. B. (1966). The data box: Its ordering of total resources in terms of possible relational systems. In R. B. Cattell (Ed.), *Handbook of multivariate experimental psychology.* (pp. 67–128). Chicago: Rand McNally.

Cattell, R. B. (1980). The separation and evaluation of personal and environmental contributions to behavior by the person-centered model (PCER). *Multivariate Behavioral Research, 15*, 371–402.

Cattell, R. B., Blaine, D. D., & Brennan, J. M. (1984). N-way factor analysis for obtaining personality-environment-test contribution systems to any response: A plasmode illustration. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 333–370). New York: Praeger.

Cattell, R. B., & Cattell, A. K. S. (1955). Factor rotation for proportional profiles: Analytical solution and an example. *The British Journal of Statistical Psychology, 8*, 83–92.

Cecil, T. L., & Rutan, S. C. (1991). Fluorescence detection in liquid chromatography with an intensified diode-array detector. *Journal of Chromatography, 556*, 495–503.

Chapman, R. M., & McCrary, J. W. (1995). EP component identification and measurement by principal components analysis. *Brain and Cognition, 27*, 288–310.

Chapman, S. C., Crossa, J., Basford, K. E., & Kroonenberg, P. M. (1997). Genotype by environment effects and selection for drought tolerance in tropical maize. II. Three-mode pattern analysis. *Euphytica, 95*, 11–20.

Chapman, S. C., Edmeades, G. O., & Crossa, J. (1996). Pattern analysis of gains from selection for drought tolerance in tropical maize populations. In M. Cooper & G. L. Hammer (Eds.), *Plant adaption and crop improvement.* (pp. 513–527). Wallingford, UK: CAB International.

Chaturvedi, A., & Carroll, J. D. (1994). An alternating combinatorial optimization approach to fitting the INDCLUS and generalized INDCLUS models. *Journal of Classification, 11*, 155–170.

Chiarello, E., & Chassery, J. M. (1997). Typology of spatial structures of images having the same color set. *Journal of Mathematical Imaging and Vision, 7*, 359–374.

Chojnicki, Z., & Czyz, T. (1976). Some problems in the application of factor analysis in geography. *Geographical Analysis, 8*, 416–427.

Choulakian, V. (1988). Analyse factorielle des correspondances de tableaux multiples [Factorial correspondence analysis of multiway tables]. *Revue de Statistique Appliquée, 36*, 33–41.

Choulakian, V., & Allard, J. (1989). *Analysis of three-way contingency tables by a family of mixed log-linear models.* (Research Report Stat No. 5). Moncton, Canada: University of Moncton.

Clore, G. L., & Itkin, S. M. (1982). Attraction and conversational style. In N. Hirschberg & L. G. Humphreys (Eds.), *Multivariate applications in the social sciences.* (pp. 143–162). Hillsdale, NJ: Erlbaum.

Cohen, H. S. (1974). *Three-mode rotation to approximate INDSCAL structure (TRAIS).* (Technical Memorandum No. 74-3433-14). Murray Hill, NJ: Bell Laboratories.

Cohen, J. E., & Rothblum, U. G. (1993). Nonnegative ranks, decompositions, and factorizations of nonnegative matrices. *Linear Algebra and its Applications¡/I¿, ¡I*, 149–168.

Cole, H. W., & Ray, W. J. (1985). EEG correlates of emotional tasks related to attentional demands. *International Journal of Psychophysiology, 3*, 33–41.

Commandeur, J. J. F. (1991). *Matching configurations.* Leiden: DSWO Press.

Cooper, L. G. (1973). A multivariate investigation of preferences. *Multivariate Behavioral Research, 8*, 253–272.

Cooper, L. G. (1988). Competitive maps: The structure underlying asymmetric cross elasticities. *Management Science, 34*, 707–723.

Cooper, L. G., Klapper, D., & Inoue, A. (1996). Competitive-component analysis: A new approach to calibrating asymmetric market-share models. *Journal of Marketing Research, 33*, 224–238.

Cooper, M., & DeLacy, I. H. (1994). Relationships among analytical methods used to study genotypic variation and genotype-by-environment interaction in plant breeding multi-environment experiments. *Theoretical and Applied Genetics, 88*, 561–572.

Coppi, R. (1982). Theoretical and practical problems in the analysis of multidimensional contingency tables. *Metron - International Journal of Statistics, 40*, 3–35.

Coppi, R. (1984). La stima della funzione di verosimiglianza nell'analisi discriminante qualitativa [Estimation of the likelihood function in discrete discriminant analysis]. In *Proceedings of the 32nd Meeting of the Italian Statistical Society.* (pp. ???–???). Sorrento.

Coppi, R. (1986a). Analysis of three-way data matrices based on pairwise relation measures. In F. de Antoni, N. Lauro, & A. Rizzi (Eds.), *Compstat 1986.* (pp. 129–139). Heidelberg: Physica-Verlag.

Coppi, R. (1986b). *Comparaison de méthodes et comparaison de stratégies d'analyse: quelques reflexions sur l'analyse d'un gros fichier de données sociologiques.* [Comparison of methods and of analysis strategies: Some thoughts on the analysis of a large set of sociological data] (Technical report). Toulouse, France: Laboratory of Statistics and Probability, University Paul-Sabatier.

Coppi, R. (1986c). Problemi e metodi di analisi di una serie di matrici di dati [Problems and methods of analysis of a series of data matrices]. In *Proceedings of the 33rd Meeting of the Italian Statistical Society, Vol. 1.* (pp. 153–155). Bari.

Coppi, R. (1988). Prospettive metodologiche nell'analisi di matrici di dati a più indici. In *Proceedings of the Workshop of the Italian I. F. C. S. Group.* (pp. ???–???). Erice - Trapani.

Coppi, R. (1994). An introduction to multiway data and their analysis. *Computational Statistics and Data Analysis*, *18*, 3–13.

Coppi, R., & Bolasco, S. (Eds.). (1989). *Multiway data analysis.* Amsterdam: Elsevier.

Coppi, R., & Zannella, F. (1978). L'Analisi fattoriale di una serie temporale multipla relativa allo stesso insieme di unità statistiche [Factor analysis of multiple time series observed on a given set of individuals]. In *Proceedings of the 29th Meeting of the Italian Statistical Society, Vol. 2.* (pp. ???–???). Bologna.

Cornelius III, E. T., Hakel, M. D., & Sackett, P. R. (1979). A methodological approach to job classification for performance appraisal purposes. *Personnel Psychology*, *32*, 283–297.

Cornillon, P. A., Sabatier, R., & Chessel, D. (1993). Analyse d'un cube sous double contrainte de voisinage. In *Bulletin of the ISI. Contributed papers 49th Session. Vol. 1.* (pp. 285–286). Rome.

Corter, J. E., & Carroll, J. D. (1990). Potential applications of three-way multidimensional scaling and related techniques to integrate knowledge from multiple experts. In D. J. Hand (Ed.), *Artifical intelligence and statistics II.* (pp. 77–92). Basel: Baltzer.

Courcoux, P., Devaux, M. F., & Bouchet, B. (2002). Simultaneous decomposition of multivariate images using three-way data analysis: Application to the comparison of cereal grains by confocal laser scanning microscopy. *Chemometrics and Intelligent Laboratory Systems*, *62*, 103–113.

Crivisqui, E. (1987). *Analyse conjointe d'une série de tableaux de type "individus x variables qualitatives".* (Working paper). Brussels, Belgium: Department of Sociology, Free University of Brussels.

Cronbach, L. J. (1984). A research worker's treasure chest. *Multivariate Behavioral Research*, *19*, 223–240.

Crossa, J., Basford, K., Taba, S., DeLacy, I., & Silva, E. (1995). Three-mode analyses of maize using morphological and agronomic attributes measured in multilocational trials. *Crop Science*, *35*, 1483–1491.

Cullen, T. F., & Crouch, S. R. (1997). Multicomponent kinetic determinations using multivariate calibration techniques. *Mikrochimica Acta*, *126*, 1–9.

Dahl, K. S., Piovoso, M. J., & Kosanovich, K. A. (1999). Translating third-order data analysis methods to chemical batch processes. *Chemometrics and Intelligent Laboratory Systems*, *46*, 161–180.

Dai, K. (1982). Application of the three-mode factor analysis to industrial design of chair styles. *Japanese Psychological Review*, *25*, 91–103 (in Japanese with English abstract).

Dai, K. (1985). Application of a three-mode factor analysis to brand images of whisky. *Reports of Statistical Application Research*, *32*, 11–22.

D'Ambra, L. (1989). Least squares criterion for asymmetric dependence models in three-way contingency tables. In E. Diday (Ed.), *Data analysis, learning symbolic and numeric knowledge.* (pp. 15–20). New York: Nova Science.

D'Ambra, L., & Kiers, H. (1990). Analysis of log-trilinear models for a three-way contingency table using PARAFAC/CANDECOMP. In *Proceedings of the Workshop of the Italian Statistical Society.* (pp. 101–114). Pescara.

D'Ambra, L., & Lauro, N. (1989). Non symmetrical analysis of three-way contingency tables. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 301–315). Amsterdam: Elsevier.

D'Ambra, L., & Lombardo, R. (1993). Normalized non-symmetrical correspondence analysis for three-way data-sets. In *Bulletin of the ISI. Contributed papers 49th session, Vol. 1.* (pp. 301–302). Rome.

D'Ambra, L., & Marchetti, G. M. (1986). Un metodo per l'analisi interstrutturale di più matrici basato su misure di relazione tra le unità statistiche [The analysis of three way data matrices: A method based on relation measures between units]. In *Proceedings of the 33rd scientific Meeting of the Italian Statistical Society, Vol. 1.* (pp. 171–182). Bari.

D'Ambra, L., & Marchetti, G. M. (1988). Analisi fattoriale relazionale e analisi delle corrispondenze multiple. *Institute of Statistics Quarterly, Università degli Studi di Parma, 7,* ???–???

D'Aubigny, G., & Polit, E. (1989). Some optimality properties of the generalization of the Tucker method to the analysis of n-way tables with specified metrics. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 39–52). Amsterdam: Elsevier.

Davis, E. E., & Grobstein, N. N. (1966). *Multimode factor analysis of interpersonal perceptions.* (Technical report No. 36). Urbana-Champaign, IL: Department of Psychology, University of Illinois.

Daws, J. T. (1996). The analysis of free-sorting data: Beyond pairwise cooccurrences. *Journal of Classification, 13,* 57–80.

Dawson, M. R. W., & Harshman, R. A. (1986). The multidimensional analysis of asymmetries in alphabetic confusion matrices: Evidence for global-to-local and local-to-global processing. *Perception and Psychophysics, 40,* 370–383.

De Carvalho, J. F. (1977). *Data analysis of multiway tables.* Unpublished doctoral dissertation, Iowa State University, Ames, Iowa.

De Juan, A., & Tauler, R. (2001). Comparison of 3-way resolution methods for non-trilinear data sets. *Journal of Chemometrics, 15,* 749–772.

De la Vega, A. J., & Chapman, S. C. (2001). Genotype by environment interaction and indirect selection for yield in sunflower. II. Three-mode principal component analysis of oil and biomass yield across environments in Argentina. *Field Crops Research, 72,* 39–50.

De Lathauwer, L., De Moor, B., & Vandewalle, J. (2000a). An introduction to independent component analysis. *Journal of Chemometrics, 14,* 123–149.

De Lathauwer, L., De Moor, B., & Vandewalle, J. (2000b). A multilinear singular value decomposition. *Siam Journal on Matrix Analysis and Applications, 21,* 1253–1278.

De Lathauwer, L., De Moor, B., & Vandewalle, J. (2000c). On the best rank-1 and rank-$(R_1, R_2, ..., R_N)$ approximation of higher-order tensors. *SIAM Journal on Matrix Analysis and Applications, 21,* 1324–1342.

De Leeuw, J. (1992). Comment on "Multilinear models: Applications in spectroscopy". *Statistical Science, 7,* 310–311.

De Leeuw, J., & Pruzansky, S. (1978). A new computational method to fit the weighted Euclidean distance model. *Psychometrika, 43,* 479–490.

De Ligny, C. L., Spanjer, M. C., Van Houwelingen, J. C., & Weesie, H. M. (1984). Three-mode factor analysis of data on retention in normal-phase high-performance liquid chromatography. *Journal of Chromatography, 301,* 311–323.

De Rooij, M. (2001). *Distance models for transition frequency data.* Unpublished doctoral dissertation, Leiden University, Leiden, The Netherlands.

De Rooij, M., & Heiser, W. J. (2000). Triadic distance models for the analysis of asymmetric three-way proximity data. *British Journal of Mathematical and Statistical Psychology, 53,* 99–119.

De Soete, G. (1992). Review of Arabie et al.'s "Three-way scaling and clustering". *Psychometrika, 57,* 455–457.

De Soete, G., & Carroll, J. D. (1988). Optimal weighting for one-mode and two-mode ultrametric tree representations of three-way three-mode data. In M. G. H. Jansen & W. H. van Schuur (Eds.), *The many faces of multivariate analysis Vol. I.* (pp. 16–29). Groningen: RION.

De Soete, G., & Carroll, J. D. (1989). Ultrametric tree representations of three-way three-mode data. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 415–426). Amsterdam: Elsevier.

De Soete, G., Carroll, J. D., & Chaturvedi, A. D. (1993). A modified CANDECOMP method for fitting the extended INDSCAL model. *Journal of Classification, 10*, 75–91.

Defays, D. (1979). Tree representation of ternary relations. *Journal of Mathematical Psychology, 19*, 208–218.

Demir, C., & Brereton, R. G. (1997). Calibration of gas chromatography-mass spectrometry of two-component mixtures using univariate regression and two- and three-way partial least squares. *Analyst, 122*, 631–638.

Denis, J. B., & Dhorne, T. (1989). Orthogonal tensor decomposition of 3-way tables. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 31–37). Amsterdam: Elsevier.

Dequier, A. (1974). *Notes sur les tables de contingence entre trois caractères.* [Notes on three-way contingency tables] (Unpublished Document No. 1033). Arcueil, France: C.I.R.O.

DeSarbo, W. S., & Carroll, J. D. (1981a). Three-way unfolding and situational dependence in consumer preference analysis. In K. Bernhardt (Ed.), *The changing marketing environment: New theories and applications.* (pp. 321–325). Chicago: American Marketing Association.

DeSarbo, W. S., & Carroll, J. D. (1981b). Three-way metric unfolding. In J. W. Keon (Ed.), *Market measurement and analysis.* (pp. ???–???)). Providence, NJ: TIMS College on Marketing.

DeSarbo, W. S., & Carroll, J. D. (1985). Three-way metric unfolding via alternating weighted least squares. *Psychometrika, 50*, 275–300.

DeSarbo, W. S., Carroll, J. D., Clark, L. A., & Green, P. E. (1984). Synthesized clustering: A method for amalgamating alternative clustering bases with differential weighting of variables. *Psychometrika, 49*, 57–78.

DeSarbo, W. S., Carroll, J. D., Lehmann, D. R., & O'Shaughnessy, J. (1982). Three-way multivariate conjoint analysis. *Marketing Science, 1*, 323–350.

DeSarbo, W. S., & Harshman, R. A. (1985). Celebrity-brand congruence analysis. *Journal of Current Issues and Research in Advertising, 1*, 17–52.

DeSarbo, W. S., Lehmann, D. R., Holbrook, M. B., & Havlena, W. J. (1987). A stochastic three-way unfolding model for asymmetric binary data. *Applied Psychological Measurement, 11*, 397–418.

DeSarbo, W. S., Libby, R., & Jedidi, K. (1994). CATSCALE: A stochastic multidimensional scaling methodology for the spatial analysis of sorting data and the study of stimulus categorization. *Computational Statistics and Data Analysis, 18*, 165–184.

Di Ciaccio, A., & Bove, G. (1987). A factorial method for the analysis of three-way data in tensor spaces. In *Fifth international symposium on data analysis and informatics, Vol. 2.* (pp. 137–145). Versailles, France.

Di Ciaccio, A., & De Leeuw, J. (1988). Cluster analysis per matrici di dati a due o più indici e con livello di misurazione misto [Cluster analysis for two-way and multi-way data with mixed measurement level]. In *Proceedings of the workshop of the Italian I.F.C.S. group.* (pp. 83–96). Erice-Trapani.

Dijksterhuis, G. B., & Gower, J. C. (1991/2). The interpretation of generalized Procrustes analysis and allied methods. *Food Quality and Preference, 3*, 67–87.

Dillon, W. R., Frederick, D. G., & Tangpanichdee, V. (1985). Decision issues in building perceptual product spaces with multi-attribute rating data. *Journal of Consumer Research, 12*, 47–63.

Disner, S. F. (2001). Evaluation of vowel normalization procedures. *Journal of the Accoustical Society of America*, *67*, 253–261.

Do, T., McIntyre, N. S., Harshman, R. A., Lundy, M. E., & Splinter, S. J. (1999). Application of parallel factor analysis and x-ray photoelectron spectroscopy to the initial stages in oxidation of aluminium - I. The Al 2p photoelectron line. *Surface and Interface Analysis*, *27*, 618–628.

Doledec, S., & Chessel, D. (1989). Seasonal successions and spatial variables in fresh-water environments. Part 2: Distinction between seasonal and environmental-effects within floral and faunistical data. *Acta Oecologica - Oecologia Generalis*, *10*, 207–232.

Donchin, E., Gerbrandt, L. A., Leifer, L., & Tucker, L. (1972). Is the contingent negative variation contingent on a motor response? *Psychophysiology*, *9*, 178–188.

Dong, D., & McAvoy, T. J. (1996). Batch tracking via nonlinear principal component analysis. *AIChE Journal*, *42*, 2199–2208.

Dueñas Cueva, J. M., Rossi, A. V., & Poppi, R. J. (2001). Modeling kinetic spectrophotometric data of aminophenol isomers by PARAFAC2. *Chemometrics and Intelligent Laboratory Systems*, *55*, 125–132.

Dunn, T. R., & Harshman, R. A. (1982). A multidimensional scaling model for the size-weight illusion. *Psychometrika*, *47*, 25–45.

Dunn III, W. J., Hopfinger, A. J., Catana, C., & Duraiswami, C. (1996). Solution of the conformation and alignment tensors for the binding of trimethoprim and its analogs to dihydrofolate reductase: 3D-quantitative structure-activity relationship study using molecular shape analysis, 3-way partial least-squares regression, and 3-way factor analysis. *Journal of Medicinal Chemistry*, *39*, 4825–4832.

Durell, S. R., Lee, C.-H., Ross, R. T., & Gross, E. L. (1990). Factor analysis of the near-ultraviolet absorption spectrum of plastocyanin using bilinear, trilinear, and quadrilinear models. *Archives of Biochemistry and Biophysics*, *278*, 148–160.

D'Urso, P., & Vichi, M. (1998). Dissimilarities between trajectories of a three-way longitudinal data set. In A. Rizzi, M. Vichi, & H.-H. Bock (Eds.), *Advances in data science and classification.* (pp. 585–592). Berlin: Springer.

Eckes, T., & Orlik, P. (1994). Three-mode hierarchical cluster analysis of three-way three-mode data. In H. H. Bock, W. Lenski, & M. M. Richter (Eds.), *Information systems and data analysis.* (pp. 217–225). Berlin: Springer-Verlag.

Einax, J. W., Aulinger, A., Van Tümpling, W., & Prange, A. (1999). Quantitative description of element concentrations in longitudinal river profiles by multiway PLS models. *Fresenius Journal of Analytical Chemistry*, *363*, 655–661.

Esbensen, K. H., & Geladi, P. (1989). Strategy of multivariate image analysis (MIA). *Chemometrics and Intelligent Laboratory Systems*, *7*, 67–86.

Esbensen, K. H., Wold, S., & Geladi, P. (1988). Relationships between higher-order data array configurations and problem formulations in multivariate data analysis. *Journal of Chemometrics*, *3*, 33–48.

Escofier, B., & Pagès, J. (1984). L'Analyse factorielle multiple: Une méthode de comparaison de groupes de variables [Multiple factorial analysis: A methode to compare groups of variables]. *Data Analysis and Informatics*, *3*, 41–55.

Escofier, B., & Pagès, J. (1994). Multiple factor analysis (AFMULT package). *Computational Statistics and Data Analysis*, *18*, 121–140.

Escoufier, Y. (1985). Objectifs et procedures de l'analyse conjointe de plusieurs tableaux de données [Objective and procedures for conjoint analysis of several data matrices]. *Statistiques et Analyse de Données*, *10*, 1–10.

Esteves da Silva, J. C. G., & Novais, S. A. G. B. (1998). decomposition of synchronous fluorescence spectra of mixtures of the major metabolites of acetylsalicylic acid. *The Analyst*, *123*, 2067–2070.

Esteves da Silva, J. C. G., & Oliveira, C. J. S. (1999). Parafac decomposition of three-way kinetic-spectrophotometric spectral matrices corresponding to mixtures of heavy metal ions. *Talanta*, *49*, 889–898.

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Estienne, F., Matthijs, N., Massart, D. L., Ricoux, P., & Leibovici, D. (2001). Multi-way modelling of high-dimensionality electroencephalographic data. *Chemometrics and Intelligent Laboratory Systems*, *58*, 59–72.

Faber, N. M. (1994). *Contributions to multivariate data analysis in chemometrics.* Unpublished doctoral dissertation, Catholic University Nijmegen, Nijmegen, The Netherlands.

Faber, N. M. (1999). Compression of broad-banded spectra by boxcar averaging: Application to the near-infrared prediction of oxygenate concentration in gasoline. *Applied Spectroscopy*, *53*, 1011–1015.

Faber, N. M. (2000). Exact presentation of multivariate calibration model as univariate calibration graph. *Chemometrics and Intelligent Laboratory Systems*, *50*, 107–114.

Faber, N. M., & Bro, R. (2002). Standard error of prediction for multiway PLS: 1. Background and a simulation study. *Chemometrics and Intelligent Laboratory Systems*, *60*, 133–149.

Faber, N. M., Buydens, L. M. C., & Kateman, G. (1993). Standard errors in the eigenvalues of a cross-product matrix: Theory and applications. *Journal of Chemometrics*, *7*, 495–526.

Faber, N. M., Buydens, L. M. C., & Kateman, G. (1994a). Generalized rank annihilation method. I: Derivation of eigenvalue problems. *Journal of Chemometrics*, *8*, 147–154.

Faber, N. M., Buydens, L. M. C., & Kateman, G. (1994b). Generalized rank annihilation method. II: Bias and variance in the estimated eigenvalues. *Journal of Chemometrics*, *8*, 181–203.

Faber, N. M., Buydens, L. M. C., & Kateman, G. (1994c). Generalized rank annihilation method. III: Practical implementation. *Journal of Chemometrics*, *8*, 273–285.

Faber, N. M., Lorber, A., & Kowalski, B. R. (1997a). Analytical figures of merit for tensorial calibration. *Journal of Chemometrics*, *11*, 419–461.

Faber, N. M., Lorber, A., & Kowalski, B. R. (1997b). Generalized rank annihilation method: Standard errors in the estimated eigenvalues if the instrumental errors are heteroscedastic and correlated. *Journal of Chemometrics*, *11*, 95–109.

Faber, N. M., Meinders, M. J., Geladi, P., Sjöström, M., Buydens, L. M. C., & Kateman, G. (1995). Random error bias in principal component analysis. Part II. Application of theoretical predictions to multivariate problems. *Analytica Chimica Acta*, *304*, 273–283.

Fabrizius, M. A., Cooper, M., & Basford, K. E. (1997). Genetic analysis of variation for grain yield and protein concentration in two wheat crosses. *Australian Journal of Agricultural Research*, *48*, 605–614.

Ferreira, M. M. C., Brandes, M. L., Ferreira, I. M. C., Booksh, K. S., Dolowy, W. C., Gouterman, M., & Kowalski, B. R. (1995). Chemometric study of the fluorescence of dental calculus by trilinear decomposition. *Applied Spectroscopy*, *49*, 1317–1325.

Ferrer, R., Guiteras, J., & Beltrán, J. L. (1999). Artificial neural networks (ANNs) in the analysis of polycyclic aromatic hydrocarbons in water samples by synchronous fluorescence. *Analytica Chimica Acta*, *384*, 261–269.

Field, A. S., & Graupe, D. (1991). Topographic component (parallel factor) analysis of multi-channel evoked potentials: Practical issues in trilinear spatiotemporal decomposition. *Brain Topography*, *3*, 407–423.

Firth, P. M., & Snyder Jr, C. W. (1979). Three-mode factor analysis of self-reported difficulty in assertiveness. *Australian Journal of Psychology*, *31*, 125–135.

Fischel, J. E. (1982). The organization of human newborn sucking and movement during auditory stimulation. *Infant Behavior and Development*, *5*, 45–61.

Flôres Jr, R. G. (1988a). *On some methods for analysing three-way tables.* (Discussion paper No. 8805). Bruxelles, Belgium: Centre d'Economie Mathématique et d'Econométrie, Université Libre de Bruxelles.

Flôres Jr, R. G. (1988b). Classical approaches to cubic tables. *Cahiers du Centre d'Etudes et de Recherche Opérationelle*, *30*, 39–46.

Flôres Jr, R. G. (1989). Contractions for three-way tables. In E. Diday (Ed.), *Data analysis, learning symbolic and numeric knowledge.* (pp. 47–54). New York: Nova Science.

Flury, B. (1988). *Common principal components and related multivariate models.* New York: Wiley.

Flury, B. (1990). Principal points. *Biometrika, 77*, 33–41.

Flury, B. (1995). Developments in principal components analysis. In W. J. Krzanowski (Ed.), *Recent advances in descriptive multivariate analysis.* (pp. 14–33). Oxford, UK: Clarendon Press.

Flury, B. D., & Neuenschwander, B. E. (1994). Modelling principal components with structure. In H. Bozdogan (Ed.), *Proceedings of the first US/Japan conference on the frontiers of statistical modeling: An informational approach.* (pp. 183–198). Dordrecht: Kluwer.

Flury, B. N. (1984). Common principle components in k groups. *Journal of the American Statistical Association, 79*, 892–898.

Foss, M. A., Fabiani, M., Mane, A.-M., & Donchin, E. (1989). Unsupervised practice: The performance of the control group. Special issue: The Learning Strategies program: An examination of the strategies in skill acquisition. *Acta Psychologica, 71*, 23–51.

Foucart, T. (1983). Une nouvelle approche de la méthode STATIS [A new approach of the STATIS method]. *Revue de Statistique Appliquée, 31*, 61–75.

Foucart, T. (1985a). Application de l'analyse factorielle des correspondances [Application of correspondence factor analysis]. *Statistique et Analyse de Données, 10*, 54–64.

Foucart, T. (1985b). Application de la méthode RAS [Application of the RAS method]. *Statistique et Analyse de Données, 10*, 65–82.

Franc, A. (1989). Multiway arrays: Some algebraic remarks. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 19–29). Amsterdam: Elsevier.

Franc, A. (1992). *Étude algebrique des multitableaux: Apports de l'algèbre tensorielle .* [An algebraic study of multi-way tables: Contributions of tensor algebra]. Unpublished doctoral dissertation, Université de Montpellier II, Montpellier, France.

Fraser, C. (1980). *COSAN: User's guide.* (Computer manual). Toronto, Canada: Department of Measurement, Evaluation and Computer Applications, Ontario Institute for Studies in Education.

Frederiksen, N. (1972). Toward a taxonomy of situations. *American Psychologist, 27*, 114–123.

Fruchter, B. (1969). A comparison of two-mode and three-mode factor analysis of psychomotor learning performance. In H. R. Wijngaarden (Ed.), *Proceedings of the XVIth International Congress of Applied Psychology.* (pp. 600–607). Amsterdam: Swets and Zeitlinger.

Gabrielsson, A. (1979). Dimension analyses of perceived sound quality of sound-reproducing systems. *Scandinavian Journal of Psychology, 20*, 159–169.

Gabrielsson, A., & Sjögren, H. (1974). *Adjective ratings and dimension analyses of perceived sound quality of hearing aids. I.* (Report TA No. 75). Stockholm, Sweden: Technical Audiology, Karolinska Institutet.

Gabrielsson, A., & Sjögren, H. (1975). *Adjective ratings and dimension analyses of perceived sound quality of hearing aids. II.* (Report TA No. 77). Stockholm, Sweden: Technical Audiology, Karolinska Institutet.

Gabrielsson, A., & Sjögren, H. (1979a). Perceived sound quality of hearing aids. *Scandinavian Audiology, 8*, 159–169.

Gabrielsson, A., & Sjögren, H. (1979b). Perceived sound quality of sound-reproducing systems. *Journal of the Acoustical Society of America, 65*, 1019–1033.

Gandour, J. T. (1978). Perceived dimensions of 13 tones: A multidimensional scaling investigation. *Phonetica, 35*, 169–179.

Gandour, J. T., & Harshman, R. A. (1978). Crosslanguage differences in tone perception: A multidimensional scaling investigation. *Language and Speech, 21*, 1–33.

García, J. M., Jimenez, A. I., Arias, J. J., Khalaf, K. D., Moraleio, A., & Delaguardia, M. (1995). Application of the partial least-squares calibration method to the simultaneous

kinetic determination of propoxur, carbaryl, ethiofencarb and formetanate. *Analyst*, *120*, 313–317.

Garrido Frenich, A., Martínez Vidal, J. L., & Martínez Galera, M. (1999). Use of the cross-section technique linked with multivariate calibration methods to resolve complex pesticide mixtures. *Analytical Chemistry*, *71*, 4844–4850.

Geladi, P. (1989). Analysis of multi-way (multi-mode) data. *Chemometrics and Intelligent Laboratory Systems*, *7*, 11–30.

Geladi, P. (1994). Meeting report: TRIC, the first conference on three-way methods in chemistry, Epe, Netherlands, 22-25 August, 1993. *Journal of Chemometrics*, *8*, 97–98.

Geladi, P., Bergner, H., & Ringqvist, L. (2000). From experimental design to images to particle size histograms to multiway analysis. An example of peat dewatering. *Journal of Chemometrics*, *14*, 197–211.

Gemperline, P. J., Miller, K. H., West, T. L., Weinstein, J. E., Hamilton, J. C., & Bray, J. T. (1992). Principal component analysis, trace elements, and blue crab shell disease. *Analytical Chemistry*, *64*, 523–531.

Gemperline, P. J., Rulifson, R. A., & Paramore, L. (2002). Multi-way analysis of trace elements in fish otoliths to track migratory patterns. *Chemometrics and Intelligent Laboratory Systems*, *60*, 135–146.

Geng, C., & Mooshammer, C. (2000). Modeling the German stress distinction. In *Proceedings of the Fifth Seminar on Speech Production: Models and Data.* (pp. 161–164). Kloster Seeon ¡!–;–). Germany.

Gensch, D. H., & Javalgi, R. G. (1988). Issues and advances in product positioning models in marketing-research. *Mathematical and Computer Modelling*, *10*, 929–949.

Gilbert, D. A., Sutherland, M., & Kroonenberg, P. M. (2000). Exploring subject-related interactions in repeated measures data using three-mode principal components analysis. *Nursing Research*, *49*, 57–61.

Gitin, S. R. (1970). A dimensional analysis of manual expression. *Journal of Personality and Social Psychology*, *15*, 271–277.

Glaçon, F. (1981). *Analyse conjointe de plusieurs matrices de données: Comparaison de différentes méthodes.* Unpublished doctoral dissertation, Scientific and Medical University of Grenoble, Grenoble, France.

Gleason, T. C., & Barton, M. A. (1976). *On improving the interpretability of three-mode component analysis.* (Working Paper). Philadelphia PA: Department of Marketing, The Wharton School, University of Pennsylvania.

Golding, S. L., Valone, K., & Foster, S. W. (1982). Interpersonal constructual: An individual differences framework. In N. Hirschberg & L. G. Humphreys (Eds.), *Multivariate applications in the social sciences.* (pp. 163–193). Hillsdale, NJ: Erlbaum.

Gower, J. C. (1975). Generalised Procrustes analysis. *Psychometrika*, *40*, 33–51.

Gower, J. C. (1977). The analysis of three-way grids. In P. Slater (Ed.), *Dimensions of intrapersonal space.* (pp. 163–173). New York: Wiley.

Gower, J. C. (1984). Multidimensional scaling displays. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 592–601). New York: Praeger.

Gräser, H. (1977). *Spontane Reversionsprozesse in der Figuralwahrnehmung. Eine Untersuchung reversibler Figuren mit der Dreimodalen Faktorenanalyse.* Unpublished doctoral dissertation, Fachbereich I, Universität Trier, Trier, FRG.

Gräser, H., Esser, H., & Saile, H. (1981). Einschätzung von Lebensereignissen und ihren Auswirkungen. In S.-H. Filipp (Ed.), *Kritische Lebensereignisse und ihre Bewältigung.* (pp. 104–122). München, FRG: Urban and Schwarzenberg.

Gredelj, S., Gerson, A. R., Kumar, S., & Cavallaro, G. P. (2001). Characterization of aluminium surfaces with and without plasma nitriding by X-ray photoelectron spectroscopy. *Appliec Surface Science*, *174*, 240–250.

Green, P. E., Carmone, F. J., & Wachspress, D. P. (1976). Consumer segmentation via latent class analysis. *Journal of Consumer Research*, *3*, 170–174.

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Green, P. E., & Devita, M. T. (1974). A complementarity model of consumer utility for item collections. *Journal of Consumer Research*, *1*, 56–67.

Grorud, A., Chino, N., & Yoshino, R. (1995). Complex analysis for three-way asymmetric relational data. In *Proceedings of the 23rd Annual Meeting of the Behaviormetric Society of Japan.* (pp. ???–???). Osaka, Japan.

Groves, C. L. (1978). Individual difference modelling of simple functional relations: Examples using three-mode factor analysis. *Dissertation Abstracts International*, *39*, 2475–2476.

Grung, B., & Kvalheim, O. M. (1995a). Detection and quantification of embedded minor analytes in three-way multicomponent profiles by evolving projections and internal rank annihilation. *Chemometrics and Intelligent Laboratory Systems*, *29*, 213–221.

Grung, B., & Kvalheim, O. M. (1995b). Rank mapping of three-way multicomponent profiles. *Chemometrics and Ingelligent Laboratory Systems*, *29*, 223–232.

Gruvaeus, G., Wainer, H., & Snyder, F. (1971). TREMOD: A 360/75 FORTRAN program for three-mode factor analysis. *Behavioral Science*, *16*, 421–422.

Gui, M., Rutan, S. C., & Agbodjan, A. (1995). Kinetic detection of overlapped amino acids in thin-layer chromatography with a direct trilinear decomposition method. *Analytical Chemistry*, *67*, 3293–3299.

Gurden, S. P., Westerhuis, J. A., Bijlsma, S., & Smilde, A. K. (2001). Modelling of spectroscopic batch process data using grey models to incorporate external information. *Journal of Chemometrics*, *15*, 101–121.

Gurden, S. P., Westerhuis, J. A., Bro, R., & Smilde, A. K. (2001). A comparison of multiway regression and scaling methods. *Chemometrics and Intelligent Laboratory Systems*, *59*, 121–136.

Gwadry, F. G., & Harshman, R. A. (1994, 24-26 June). *In search of undistorted factors: Comparing PCA and common-factor methods in three-way (PARAFAC) analysis.* Paper presented at the Meeting of the Psychometric Society., Urbana IL.

Haan, N. (1981). Common dimensions of personality development: Early adolescence to middle life. In D. H. Eichorn, J. A. Clausen, N. Haan, M. P. Honzik, & P. H. Mussen. (Eds.), *Present and past in middle life.* (pp. 117–151). New York: Academic Press.

Hammers, W. E., Janssen, R. H. A. M., Baars, A. G., & De Ligny, C. L. (1978). Standardization and determination of the selectivity of octadecylsilylsilica in high-performance liquid chromatography. *Journal of Chromatography*, *167*, 273–289.

Hammers, W. E., Spanjer, M. C., & De Ligny, C. L. (1979). Selectivity of nucleosil 10 NH_2 as an adsorbent in high-performance liquid chromatography. *Journal of Chromatography*, *174*, 291–305.

Hanafi, M., & Lafosse, R. (2001). Généralisations de la régression simple pour analyser la dépendance de K ensembles de variables avec un $K + 1$ème. *Revue Statistique Appliquée*, *49*, 5–30.

Hanke, B., Lohmöller, J.-B., & Mandl, H. (1980). *Schülerbeurteilung in der Grundschule: Ergebnisse der Augsburger Längsschnittuntersuchung.* [Evaluation of students at primary school: Results of the Ausburger longitudinal study]. München FRG: Oldenbourg Verlag.

Harch, B. D. (1995). *Statistical evaluation of germplasm collections.* [Chapter 7: Analysis of three-way quantitative data]. Unpublished doctoral dissertation, Department of Agriculture, University of Queensland, Brisbane, Australia.

Harch, B. D., DeLacy, I. H., & Basford, K. E. (1995). *Graphical display of variability in large scale multivariate data sets.* (Research report No. 30). Brisbane, Australia: Centre for Statistics, University of Queensland.

Harris, M. L., & Romberg, T. A. (1974). An analysis of content and task dimensions of mathematics items designed to measure level of concept attainment. *Journal for Research in Mathematics Education*, *5*, 72–86.

Harshman, R. A. (1970). Foundations of the PARAFAC procedure: Models and conditions for an "explanatory" multi-modal factor analysis. *UCLA Working Papers in Phonetics*, *16*, 1–84.

Harshman, R. A. (1972a). Determination and proof of minimum uniqueness conditions for PARAFAC1. *UCLA Working Papers in Phonetics*, *22*, 111–117.

Harshman, R. A. (1972b). PARAFAC2: Mathematical and technical notes. *UCLA Working Papers in Phonetics*, *22*, 30–44.

Harshman, R. A. (1972c). PARAFAC: Parallel-factor models yielding mathematically unique, empirically meaningful solutions with certain classes of three-mode data. *UCLA Working Papers in Phonetics*, *22*, 8–9.

Harshman, R. A. (1976a). *PARAFAC: Methods of three-way factor analysis and multidimensional scaling according to the principle of proportional profiles.* Unpublished doctoral dissertation, University of California, Los Angeles, CA.

Harshman, R. A. (1976b). PARAFAC: Methods of three-way factor analysis and multidimensional scaling according to the principle of proportional profiles. *Dissertation Abstracts International*, *37*, 2478–2479.

Harshman, R. A. (1984). "How can I know if it's 'real'?" A catalog of diagnostics for use with three-mode factor analysis and multidimensional scaling. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 566–591). New York: Praeger.

Harshman, R. A. (1985). Book review: Three-mode principal component analysis by Pieter M. Kroonenberg. *Applied Psychological Measurement*, *9*, 327–332.

Harshman, R. A. (1994a). Substituting statistical for physical decomposition: Are there applications for parallel factor analysis (PARAFAC) in non-destructive evaluation? In P. V. Malague (Ed.), *Advances in Signal Processing for Nondestructive Evaluation of Materials.* (pp. 469–483). Dordrecht: Kluwer.

Harshman, R. A. (1994b, 24-26 June). *Three- and four-way factor analysis of brain scans, satellite photos, and other image data using both standard and novel multi-way models.* Paper presented at the Meeting of the Psychometric Society., Urbana IL.

Harshman, R. A. (1999). *Use of angle bracket notation to simplify expression of multilinear models.* (Research Bulletin No. 757). London, Canada: Department of Psychology, University of Western Ontario.

Harshman, R. A. (2000). *Generalization of matrix notation and algebra to n-way arrays.* (Research Bulletin No. 758). London, Canada: Department of Psychology, University of Western Ontario.

Harshman, R. A. (2001). An index to formalism that generalizes the capabilities of matrix notation and algebra to n-way arrays. *Journal of Chemometrics*, *15*, 689–714.

Harshman, R. A., & Berenbaum, S. A. (1981). Basic concepts underlying the PARAFAC-CANDECOMP three-way factor analysis model and its application to longitudinal data. In D. H. Eichorn, J. A. Clausen, N. Haan, M. P. Honzik, & P. H. Mussen (Eds.), *Present and past in middle life.* (pp. 435–459). New York: Academic Press.

Harshman, R. A., & DeSarbo, W. S. (1981). *Connotative congruence analysis: An application of PARAFAC to the selection of appropriate spokesmen for given brand.* (Unpublished manuscript). London, Canada: Bell Laboratories and University of Western Ontario.

Harshman, R. A., & DeSarbo, W. S. (1984). An application of PARAFAC to a small sample problem, demonstrating preprocessing, orthogonality constraints, and split-half diagnostic techniques. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 602–642). New York: Praeger.

Harshman, R. A., & Hong, S. (2002). 'Stretch' vs. 'slice' methods for representing three-way structure via matrix notation. *Journal of Chemometrics*, *16*, 198–205.

Harshman, R. A., & Howe, M. L. (1979, June 8-10). *Systematic effects of noneuclidean input on the recovered subject and stimulus spaces in three-way MDS.* Paper presented at the 1979 Annual Meeting of the Psychometric Society., Monterey CA.

Harshman, R. A., & Kroonenberg, P. M. (1987). *Overlooked solutions to Cattell's parallel proportional profiles problem: A perspective on three-mode data analysis.* (Internal Report). London, Canada: Department of Psychology, University of Western Ontario.

Harshman, R. A., Ladefoged, P., & Goldstein, L. (1977). Factor analysis of tongue shapes. *Journal of the Acoustical Society of America*, *62*, 693–707.

Harshman, R. A., & Lundy, M. E. (1984a). The PARAFAC model for three-way factor analysis and multidimensional scaling. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 122–215). New York: Praeger.

Harshman, R. A., & Lundy, M. E. (1984b). Data preprocessing and the extended PARAFAC model. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 216–284). New York: Praeger.

Harshman, R. A., & Lundy, M. E. (1985b). *The preprocessing controversy: An exchange of papers between Kroonenberg, Harshman and Lundy.* (Research Bulletin No. 631). London, Canada: Department of Psychology, University of Western Ontario.

Harshman, R. A., & Lundy, M. E. (1994). PARAFAC: Parallel factor analysis. *Computational Statistics and Data Analysis*, *18*, 39–72.

Harshman, R. A., & Lundy, M. E. (1996). Uniqueness proof for a family of models sharing features of Tucker's three-mode factor analysis and PARAFAC-CANDECOMP. *Psychometrika*, *61*, 133–154.

Harshman, R. A., Lundy, M. E., & Kruskal, J. B. (1985, July). *Comparison of trilinear and quadrilinear methods: Strengths, weaknesses, and degeneracies.* Paper presented at the annual Meeting of the North American Classification Society. St. John's Newfoundland, Canada.

Harshman, R. A., & Papcun, G. (1976). Vowel normalization by linear transformation of each speaker's acoustic space. *Journal of the Acoustical Society of America*, *59*, 71.

Hartmann, W. (1986). Canonical decomposition with linear equality and inequality constraints on parameters. In W. Gaul & M. Schader (Eds.), *Classification as a tool of research.* (pp. 191–199). Amsterdam: Elsevier.

Harvey, D., & Greenway, P. (1982). How parent attitudes and emotional reactions affect their handicapped child's self-concept. *Psychological Medicine*, *12*, 357–370.

Hasegawa, K., Arakawa, M., & Funatsu, K. (1999). 3D-QSAR study of insecticidal neonicotinoid compounds based on 3-way partial least squares model. *Chemometrics and Intelligent Laboratory Systems*, *47*, 33–40.

Hasegawa, K., Arakawa, M., & Funatsu, K. (2000). Rational choice of bioactive conformations through use of conformation analysis and 3-way partial least squares modeling. *Chemometrics and Intelligent Laboratory Systems*, *50*, 253–261.

Hattie, J. A., McDonald, R. P., Snyder Jr, C. W., & Law, H. G. (1984). Issues and perspectives in multimode analysis. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 555–564). New York: Praeger.

Hayashi, C. (1972). Two dimensional quantification based on the measure of dissimilarity among three elements. *Annals of the Institute of Statistical Mathematics*, *24*, 251–257.

Hayashi, C. (1981). Distance or generalized variance. In *Classification Automatique et Perception par Ordinateur.* (pp. 129–141). Chesnay.

Hayashi, C. (1982). An algorithm for the solution of PARAFAC model and analysis of the data by the international rice adaptation experiments. *Bulletin of the Biometric Society of Japan*, *3*, 77–91.

Hayashi, C. (1985). Recent theoretical and methodological developments in multidimensional scaling and its related methods in Japan. *Behaviormetrika*, *18*, 67–79.

Hayashi, C. (1989). Multiway data matrices and method of quantification of qualitative data as a strategy of data analysis. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 131–142). Amsterdam: Elsevier.

Hayashi, C. (1993). *Suryoka: Riron to hoko.* [Quantifications: Theory and methods. Chapter 6: Multiway data analysis, pp. 220-229]. Tokyo: Asakura-shoten.

Hayashi, C., & Hayashi, F. (1982). A new algorithm to solve PARAFAC-model. *Behaviormetrika*, *11*, 49–60.

Hayashi, F. (1972). Theory of quantification and its example IX: e_{ijk}-type quantification and its computer program (in Japanese). *Proceedings of the Institute of Statistical Mathematics*, *20*, 35–43.

Hayashi, F. (1985). *Computer programs of multidimensional quantification method.* (Technical Notes). Tokyo: Institute of Statistical Mathematics.

Hayashi, F., Yamaoka, K., & Terao, H. (1982). A comparative study between two algorithms of PARAFAC model (in Japanese). *Japanese Journal of Behaviormetrics*, *1*, 47–62.

Heimdal, H., Bro, R., Larsen, L. M., & Poll, L. (1997). Prediction of polyphenol oxidase activity in model solutions containing various combinations of chlorogenic acid, (-)-epicatechin, O_2, CO_2, temperature, and pH by multiway data analysis. *Journal of Agricultural and Food Chemistry*, *45*, 2399–2406.

Heiser, W. J. (1989). The city-block model for three-way multidimensional scaling. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 395–404). Amsterdam: Elsevier.

Heiser, W. J., & De Leeuw, J. (1982). Theory of multidimensional scaling. In P. R. Krishnaiah & L. N. Kanal (Eds.), *Handbook of statistics.* (pp. 285–316). Amsterdam: North Holland.

Heiser, W. J., & Stoop, I. (1986). *Explicit Smacof algorithms for individual differences scaling.* (PROXSCAL Progress Report No. 2). Leiden, The Netherlands: Department of Data Theory, Leiden University.

Henrion, G., Henrion, R., Bacso, J., & Uzonyi, I. (1990). Selected methods of correlation-analysis for the example of trace-element relations in human-body. *Zeitschrift für Chemie*, *30*, 204–211.

Henrion, G., Nass, D., Michael, G., & Henrion, R. (1995). Multivariate 3-way data analysis of amino acid patterns of lakes. *Fresenius' Journal of Analytical Chemistry*, *352*, 431–436.

Henrion, R. (1993). Body diagonalization of core matrices in three-way principal components analysis: Theoretical bounds and simulation. *Journal of Chemometrics*, *7*, 477–494.

Henrion, R. (1994). *N*-way principal component analysis: Theory, algorithms and applications. *Chemometrics and Intelligent Laboratory Systems*, *25*, 1–23.

Henrion, R. (2000). On global, local and stationary solutions in three-way data analysis. *Journal of Chemometrics*, *14*, 261–274.

Henrion, R., & Andersson, C. A. (1999). A new criterion for simple-structure transformations of core arrays in *N*-way principal components analysis. *Chemometrics and Intelligent Laboratory Systems*, *47*, 189–204.

Henrion, R., Henrion, G., Böhme, M., & Behrendt, H. (1997). Three-way principal components analysis for fluorescence spectroscopic classification of algae species. *Fresenius' Journal of Analytical Chemistry*, *357*, 522–526.

Henrion, R., Henrion, G., Heininger, P., & Steppuhn, G. (1990). Three-way principal components analysis for multivariate evaluation of round robin tests. *Fresenius' Journal of Analytical Chemistry*, *336*, 37.

Henrion, R., Henrion, G., Heininger, P., & Steppuhn, G. (1991). Statistical analysis of complex round robin tests. *Acta Hydrochimica et Hydrobiologica*, *19*, 603–614.

Henrion, R., Henrion, G., & Onuoha, G. C. (1992). Multi-way principal components analysis of a complex data array resulting from physiochemical characterization of natural waters. *Chemometrics and Intelligent Laboratory Systems*, *16*, 87–94.

Henshaw, J. M., Burgess, L. W., Booksh, K. S., & Kowalski, B. R. (1994). Multicomponent determination of chlorinated hydrocarbons using a reaction-based chemical sensor. Part 1: Multivariate calibration of fujiwara reaction-products. *Analytical Chemistry*, *66*, 3328–3336.

Hentschel, U., & Klintman, H. (1974). *A 28-variable semantic differential. I. On the factorial identification of content.* (Psychological Research Bulletin No. 14). Lund, Sweden: Lund University.

Herrmann, W. M., Röhmel, J., Streitberg, B., & Willmann, J. (1983). Example for applying the COMSTAT multimodal factor analysis algorithm to EEG data to describe variance sources. *Neuropsychobiology*, *10*, 164–172.

Hildebrandt, L., & Klapper, D. (1994). The analysis of three-way three-mode data: A program based on GAUSS. In F. Faulbaum (Ed.), *Advances in statistical software,Vol. 4.* (pp. 527–534). Stuttgart - Jena - New York: Gustav Fischer.

Hildebrandt, L., & Klapper, D. (2001). The analysis of price competition between corporate brands. *International Journal of Research in Marketing*, *18*, 139–159.

Hindmarch, P., Kavianpour, K., & Brereton, R. G. (1997). Evaluation of parallel factor analysis for the resolution of kinetic data by diode-array high-performance liquid chromatography. *Analyst*, *122*, 871–877.

Hirschberg, N. (1980). Individual differences in social judgment: A multivariate approach. In M. Fishbein (Ed.), *Progress in social psychology.* (pp. 73–126). Hillsdale, NJ: Erlbaum.

Hoffman, E. L., & Tucker, L. R. (1964). *Three-way factor analysis of a multitrait-multimethod matrix.* (Technical Report). Urbana, IL: Office of Naval Research and Department of Psychology, University of Illinois.

Hogden, J., Lofqvist, A., Gracco, V., Zlokarnik, I., Ru, P., & Saltzman, E. (1996). Accurate recovery of articulator positions from acoustics: New conclusions based on human data. *Journal of the Acoustical Society of America*, *100*, 1819–1834.

Hohn, M. E. (1979). Principal components analysis of three-way tables. *Journal of the International Association of Mathematical Geology*, *11*, 611–626.

Hohn, M. E., & Friberg, L. M. (1979). A generalized principal components model in petrology. *Lithos*, *12*, 317–324.

Holmes, S. (1989). Using the bootstrap and the RV coefficient in the multivariate context. In E. Diday (Ed.), *Data analysis, learning symbolic and numeric knowledge.* (pp. 119–131). New York: Nova Science.

Hong, S., & Harshman, R. A. (2000). *fted factor analysis, Part II: Algorithms and applications.* (Unpublished manuscript). London, Canada: Department of Psychology, University of Western Ontario.

Hoole, P. (1999). On the lingual organization of the German vowel system. *Journal of the Acoustical Society of America*, *106*, 1020–1032.

Hopke, P. K., Paatero, P., Jia, H., Ross, R. T., & Harshman, R. A. (1998). Three-way (PARAFAC) factor analysis: examination and comparison of alternative computational methods as applied to ill-conditioned data. *Chemometrics and Intelligent Laboratory Systems*, *43*, 25–42.

Hunt, L. A., & Basford, K. E. (2001a). Fitting a mixture model to three-mode three-way data with categorical and continuous variables. *Journal of Classification*, *16*, 283–296.

Hunt, L. A., & Basford, K. E. (2001b). Fitting a mixture model to three-mode three-way data with missing information. *Journal of Classification*, *18*, 209–226.

Iacobucci, D. (1989). Modeling multivariate sequential dyadic interactions. *Social Networks*, *11*, 315–362.

Iacobucci, D. (1990). Derivation of subgroups from dyadic interactions. *Psychological Bulletin*, *107*, 114–132.

Imada, A. S., & London, M. (1979). Relationships between subjects, scales and stimuli in research on social perception. *Perceptual and Motor Skills*, *48*, 691–697.

Inn, A., Hulin, C. L., & Tucker, L. (1972). Three sources of criterion variance: Static dimensionality, dynamic dimensionality, and individual dimensionality. *Organizational Behavior and Human Performance*, *8*, 58–83.

Inukai, Y. (1981). Analysis of perceptual dimensions of schematic facial expressions via three-way multidimensional scaling. *Behaviormetrika*, *9*, 1–20.

Inukai, Y. (1996). Some applications of PARAFAC and INDSCAL to the analysis of perceptual judgement data (in Japanese with English abstract). *Japanese Psychological Review*, *39*, 476–500.

Inukai, Y., & Miyano, H. (1983, Date unknown). *Trilinear model analysis of subjective ratings of infrasound (in Japanese).* Paper presented at the 13th Annual Conference of Behaviormetric Society of Japan., Place unknown.

Inukai, Y., Saito, S., & Mishima, I. (1980). A vector model analysis of individual differences in sensory measurement of surface roughness. *Human Factors*, *22*, 25–36.

Inukai, Y., Taya, H., Miyano, H., & Kuriyama, H. (1985, 12-13 September). *Multidimensional evaluation method for psychological effects of pure tones at low and infrasonic frequencies.* Paper presented at the 3rd International Conference on Low Frequency Noise and Vibration. London, UK.

Israelsson, A. (1969). Three-way (or second order) component analysis. In H. Wold and E. Lyttkens (Eds.), Nonlinear iterative partial least-squares (NIPALS) estimation procedures. *Bulletin of the International Statistical Institute*, *43*, 29–51.

Itakura, H., Nishikawa, Y., & Yamauchi, T. (1982). An iterative solution procedure for individual differences multidimensional scaling with weighted inner-product model. *Behaviormetrika*, *11*, 1–15.

Iwakuma, S., & Makita, H. (1989). The individual structure of self-image: An analysis of interrelations among WAI responses of university students. *Shinrigaku-Kenkyu*, *60*, 237–244.

Iwatsubo, S. (1974). Two classification techniques of 3-way discrete data: Quantification by means of correlation ratio and three-dimensional correlation coefficient (in Japanese English abstract, p. 79). *Kodokeiryogaku (Japanese Journal of Behaviormetrics)*, *2*, 54–65.

Iwatsubo, S. (1987a). *Suryoko-ho no kiso.* [Foundations of qualification methods. (Chapter 5, pp. 161-226)]. Tokyo: Asakura-shoten.

Iwatsubo, S. (1988a). Similarities and distances in multivariate methods for qualitative data. In E. Diday (Ed.), *Data analysis and informatics.* (pp. 101–113). Amsterdam: North Holland.

Iwatsubo, S. (1988b). Correlation analysis of n-way qualitative data and its applications. In E. Diday, C. Hayashi, M. Jambu, & N. Ohsumi (Eds.), *Recent developments in clustering and data analysis.* (pp. 267–279). Boston MA: Academic Press.

Izquierdo-Ridorsa, A., Saurina, J., Hernández-Cassou, S., & Tauler, R. (1997). Second-order multivariate curve resolution applied to rank-deficient data obtained from acid-base spectrophotometric titrations of mixtures of nucleic bases. *Chemometrics and Intelligent Laboratory Systems*, *38*, 183–196.

Jackson, M. T. T. (1988a). Analysis of tongue positions: Language-specific and cross-linguistic models. *Journal of the Acoustical Society of America*, *84*, 124–143.

Jackson, M. T. T. (1988b). *Phonetic theory and cross-linguistic variation in vowel articulation.* Unpublished doctoral dissertation, University of California, Los Angeles CA.

Jackson, M. T. T. (1989a). Cross-linguistic articulatory models of vowels. *UCLA Working Papers in Phonetics*, *72*, 1–16.

Jackson, M. T. T. (1989b). Are there cross-linguistic differences in front vowel production? *UCLA Working Papers in Phonetics*, *72*, 17–38.

Jaffrenou, P. A. (1978). *Sur l'analyse des familles finies de variables vectorielles: Bases algébriques et application à la description statistique.* [On the analysis of finite families of vector variables: Algebraic bases and applications in statistical description] (Research Report). Saint-Etienne, France: Department of Mathematics, University of Saint-Etienne.

Jedidi, K., & DeSarbo, W. S. (1991). A stochastic multidimensional scaling procedure for the spatial representation of three-mode, three-way pick any/J data. *Psychometrika*, *56*, 471–494.

Jennrich, R. (1972). A generalization of the multidimensional scaling model of Carroll and Chang. *UCLA Working Papers in Phonetics*, *22*, 45–47.

Jiang, J. H., Wu, H. L., Chen, Z. P., & Yu, R. Q. (1999). Coupled vectors resolution method for chemometric calibration with three-way data. *Analytical Chemistry*, *71*, 4254–4262.

Jiang, J. H., Wu, H. L., Li, Y., & Yu, R. Q. (1999). Alternating coupled vectors resolution (ACOVER) method for trilinear analysis of three-way data. *Journal of Chemometrics*, *13*, 557–578.

Jiji, R. D., Andersson, G. G., & Booksh, K. S. (2000). Application of PARAFAC for calibration with excitation-emission matrix fluorescence spectra of three classes of environmental pollutants. *Journal of Chemometrics*, *14*, 171–185.

Jiji, R. D., & Booksh, K. S. (2000). Mitigation of Rayleigh and Raman spectral interferences in multiway calibration of excitation-emission matrix fluorescence spectra. *Analytical Chemistry*, *72*, 718–725.

Jiji, R. D., Cooper, G. A., & Booksh, K. S. (1999). Excitation-emission matrix fluorescence based determination of carbamate pesticides and polycyclic aromatic hydrocarbons. *Analytica Chimica Acta*, *397*, 61–72.

Johnson, K., De Juan, A., & Rutan, S. C. (1999). Three-way data analysis of pollutant degradation profiles monitored using liquid chromatography-diode array detection. *Journal of Chemometrics*, *13*, 331–341.

Johnson, K., Ladefoged, P., & Lindau, M. (1993). Individual-differences in vowel production. *Journal of the Acoustical Society of America*, *94*, 701–714.

Jonassen, E. D. (1983). Aptitudes, personality traits and covariation among dimensions of judgment. *Dissertation Abstracts International*, *44*, 2282.

Jones, L. E., & Iacobucci, D. (1989). The structure of affect and trait judgments of political figures. *Multivariate Behavioral Research*, *24*, 457–476.

Kapteyn, A., Neudecker, H., & Wansbeek, T. (1986). An approach to n-mode components analysis. *Psychometrika*, *51*, 269–275.

Karnas, G. (1975). Note sur une procédure d'analyse de données relatives à une correspondance ternaire ou pseudo-ternaire par la méthode d'analyse binaire de faverge. *Le Travail Humain*, *38*, 287–299.

Karukstis, K. K., Suljak, S. W., Waller, P. J., Whiles, J. A., & Thompson, E. H. Z. (1996). Fluorescence analysis of single and mixed micelle systems of SDS and DTAB. *Journal of Physical Chemistry*, *100*, 11125–11132.

Kashiwagi, S. (1969). An application of a revised "points of view" procedure to the analysis of the learning process in T-group (in Japanese, English abstract). *The Japanese Journal of Psychology*, *40*, 1–11.

Keesing, O. (1992). Introducing a dynamic component into strategic planning instruments via multi-mode analysis models. In H. Goebl and M. Schader (Ed.), *Data Analysis, Classification and Information Processing: Methods and Applications in Various Disciplines.* (pp. 217–229). Vienna: Physika.

Kelly, E. F., Lenz, J. E., Franaszczuk, P. J., & Truong, Y. K. (1997). A general statistical framework for frequency-domain analysis of EEG topographic structure. *Computers and Biomedical Research*, *30*, 129–164.

Keramidas, E. M., Devlin, S. J., & Gnanadesikan, R. (1987). A graphical procedure for comparing the principal components of several covariance matrices. *Communications in Statistics, Part B -Simulation and Computation*, *16*, 161–191.

Kettenring, J. R. (1971). Canonical analysis of several sets of variables. *Biometrika*, *58*, 433–460.

Kettenring, J. R. (1983a). A case study in data analysis. *Proceedings of Symposia in Applied Mathematics*, *28*, 105–139.

Kettenring, J. R. (1983b). Components of interaction in analysis of variance models with no replications. In P. K. Sen (Ed.), *Contributions to Statistics: Essays in Honour of Norman L. Johnson.* (pp. 283–297). Amsterdam: North-Holland.

Kiers, H. A. L. (1988). Comparison of "Anglo-Saxon" and "French" three-mode methods. *Statistique et Analyse des Données*, *13*, 14–32.

Kiers, H. A. L. (1989a). INDSCAL for the analysis of categorical data. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 155–167). Amsterdam: Elsevier.

Kiers, H. A. L. (1989b). *Three-way methods for the analysis of qualitative and quantitative two-way data.* Leiden: DSWO Press.

Kiers, H. A. L. (1989c). An alternating least squares algorithm for fitting the two- and three-way DEDICOM model and the IDIOSCAL model. *Psychometrika*, *54*, 515–521.

Kiers, H. A. L. (1989d). A computational short-cut for INDSCAL with orthonormality constraints on positive semi-definite matrices of low rank. *Computational Statistics Quarterly*, *5*, 119–135.

Kiers, H. A. L. (1990a). Procrustes-PC v2.0: Een programma voor gegeneraliseerde Procrustes-analyse [Procrustes-PC v2.0: A program for generalized Procrustes-analysis]. *Kwantitatieve Methoden*, *11*, 177–188.

Kiers, H. A. L. (1990b). *SCA: A program for simultaneous components analysis of variables measured in two or more populations.* (User's Manual). Groningen, The Netherlands: Department of Psychology, University of Groningen.

Kiers, H. A. L. (1991a). Hierarchical relations among three-way methods. *Psychometrika*, *56*, 449–470.

Kiers, H. A. L. (1991b). Simple structure in component analysis techniques for mixtures of qualitative and quantitative variables. *Psychometrika*, *56*, 197–212.

Kiers, H. A. L. (1992). TUCKALS core rotations and constrained TUCKALS modelling. *Statistica Applicata*, *4*, 659–667.

Kiers, H. A. L. (1993a). An alternating least squares algorithm for PARAFAC2 and three-way DEDICOM. *Computational Statistics and Data Analysis*, *16*, 103–118.

Kiers, H. A. L. (1993b). A comparison of techniques for finding components with simple structure. In C. M. Cuadras & C. R. Rao (Eds.), *Multivariate analysis: Future directions Vol. 2.* (pp. 67–86). Amsterdam: Elsevier.

Kiers, H. A. L. (1993c). Handling ordinal variables in three-way analysis of quantification matrices for variables of mixed measurement levels. *British Journal of Mathematical and Statistical Psychology*, *46*, 135–152.

Kiers, H. A. L. (1993d). The exploratory analysis of qualitative variables by means of three-way analysis of two types of quantification matrices. *Applied Stochastic Models and Data Analysis*, *9*, 301–317.

Kiers, H. A. L. (1997a). A modification of the SINDCLUS algorithm for fitting the ADCLUS and INDCLUS models. *Journal of Classification*, *14*, 297–310.

Kiers, H. A. L. (1997b). Three-mode orthomax rotation. *Pychometrika*, *62*, 579–598.

Kiers, H. A. L. (1997c). Weighted least squares fitting using ordinary least squares algorithms. *Psychometrika*, *62*, 251–266.

Kiers, H. A. L. (1998a). Recent developments in three-mode factor analysis: Constrained three-mode factor analysis and core rotations. In C. Hayashi, N. Ohsumi, K. Yajima, Y. Tanaka, H.-H. Bock, & Y. Baba (Eds.), *Data Science, Classification, and Related Methods.* (pp. 563–574). Tokyo: Springer.

Kiers, H. A. L. (1998b). An overview of three-way analysis and some recent developments. In A. Rizzi, M. Vichi, & H.-H. Bock (Eds.), *Advances in data science and classification.* (pp. 593–602). Berlin: Springer.

Kiers, H. A. L. (1998c). A three-step algorithm for CANDECOMP/PARAFAC analysis of large data sets with multicollinearity. *Journal of Chemometrics*, *12*, 155–171.

Kiers, H. A. L. (1998d). Joint orthomax rotation of the core and component matrices resulting from three-mode principal components analysis. *Journal of Classification*, *15*, 245–263.

Kiers, H. A. L. (1998e). Three-way SIMPLIMAX for oblique rotation of the three-mode factor analysis core to simple structure. *Computational Statistics and Data Analysis*, *28*, 307–324.

Kiers, H. A. L. (2000a). Some procedures for displaying results from three-way methods. *Journal of Chemometrics*, *14*, 151–170.

Kiers, H. A. L. (2000b). Towards a standardized notation and terminology in multiway analysis. *Journal of Chemometrics*, *14*, 105–122.

Kiers, H. A. L., Cleroux, R., & Ten Berge, J. M. F. (1994). Generalized canonical-analysis based on optimizing matrix correlations and a relation with IDIOSCAL. *Computational Statistics and Data Analysis*, *18*, 331–340.

Kiers, H. A. L., & Harshman, R. A. (1997). Relating two proposed methods for speedup of algorithms for fitting two- and three-way principal component and related multilinear models. *Chemometrics and Intelligent Laboratory Systems*, *36*, 31–40.

Kiers, H. A. L., & Krijnen, W. P. (1991). An efficient algorithm for PARAFAC of three-way data with large numbers of observation units. *Psychometrika*, *56*, 147–152.

Kiers, H. A. L., Kroonenberg, P. M., & Ten Berge, J. M. F. (1992). An efficient algorithm for TUCKALS3 on data with large numbers of observation units. *Psychometrika*, *57*, 415–422.

Kiers, H. A. L., & Marchetti, G. M. (1994). Handling large numbers of observation units in three-way methods for the analysis of qualitative and quantitative two-way data. *Computational Statistics*, *9*, 41–64.

Kiers, H. A. L., & Smilde, A. K. (1995). Some theoretical results on second-order calibration methods for data with and without rank overlap. *Journal of Chemometrics*, *9*, 179–195.

Kiers, H. A. L., & Smilde, A. K. (1998). Constrained three-mode factor analysis as a tool for parameter estimation with second-order instrumental data. *Journal of Chemometrics*, *12*, 125–147.

Kiers, H. A. L., & Ten Berge, J. M. F. (1989). Alternating least squares algorithms for simultaneous components analysis with equal component weight matrices in two or more populations. *Psychometrika*, *54*, 467–473.

Kiers, H. A. L., & Ten Berge, J. M. F. (1990). An orthogonal Procrustes rotation procedure for multiple correspondence analysis. In K. Momirovic & V. Mildner (Eds.), *Compstat 1990.* (pp. 163–168). Vienna: Physica.

Kiers, H. A. L., & Ten Berge, J. M. F. (1994). Hierarchical relations between methods for simultaneous component analysis and a technique for rotation to a simple simultaneous structure. *British Journal of Mathematical and Statistical Psychology*, *47*, 109—126.

Kiers, H. A. L., Ten Berge, J. M. F., & Bro, R. (1999). PARAFAC2 - Part I. A direct fitting algorithm for the PARAFAC2 model. *Journal of Chemometrics*, *13*, 275–294.

Kiers, H. A. L., & Van Mechelen, I. (2001). Three-way component analysis: Principles and illustrative application. *Psychological Methods*, *6*, 84–110.

Kiers H. A. L. and Ten Berge, J. M. F., & Rocci, R. (1997). Uniqueness of three-mode factor models with sparse cores: The 3×3×3 case. *Psychometrika*, *62*, 349–374.

Kim, M. G. (1991). *Models for the covariance matrices of several groups.* Unpublished doctoral dissertation, Ohio State University, Columbus OH.

Kjerulff, K., & Wiggins, N. H. (1976). Graduate student styles for coping with stressful situations. *Journal of Educational Psychology*, *68*, 247–254.

Klauer, K. C. (1995). Review of Krijnen's "The analysis of three-way arrays by constrained PARAFAC methods". *Journal of Classification*, *12*, 147–149.

Klauer, K. C., & Carroll, J. D. (1995). Network models for scaling proximity data. In R. D. Luce, M. D'Zmura, D. D. Hoffman, G. J. Iverson, & A. K. Romney (Eds.), *Geometric representations of perceptual phenomena: Papers in honor of Tarow Indow on his 70th birthday.* (pp. 319–342). Mahwah, NJ: Erlbaum.

Knobloch, E. M. (1972). *Einschätzung von leistungsrelevanten Begriffen.* (Unpublished master thesis). Hamburg, Germany: University of Hamburg.

Kolda, T. G. (2001). Orthogonal tensor decompositions. *Siam Journal of Matrix Analysis and Applications*, *23*, 243–255.

Kosanovich, K. A., Dahl, K. S., & Piovoso, M. J. (1996). Improved process understanding using multiway principal component analysis. *Industrial and Engineering Chemistry Research*, *35*, 138–146.

Kourti, T., & MacGregor, J. F. (1995). Process analysis, monitoring and diagnosis, using multivariate projection methods. *Chemometrics and Intelligent Laboratory Systems*, *28*, 3–21.

Kourti, T., Nomikos, P., & MacGregor, J. F. (1995). Analysis, monitoring and fault diagnosis of batch processes using multiblock and multiway PLS. *Journal of Process Control*, *5*, 277–284.

Kratochwill, T. R. (1985). Selection of target behaviors in behavioral consultation. *Behavioral Assessment*, *16*, 643–666.

Krijnen, W. P. (1993a). Non-contrast components according to the PARAFAC model. In R. Steyer, K. F. Wender, & K. F. Widaman (Eds.), *Psychometric Methodology. Proceedings of the 7th European Meeting of the Psychometric Society in Trier¡.* (pp. 237–241). Stuttgart and New York: Gustav Fischer Verlag.

Krijnen, W. P. (1993b). *The analysis of three-way arrays by constrained PARAFAC methods.* Leiden: DSWO Press.

Krijnen, W. P., & Kiers, H. A. L. (1993). Clustered variables in PARAFAC. In J. H. L. Oud & R. A. W. van Blokland-Vogelesang (Eds.), *Advances in longitudinal and multivariate analysis in the behavioral sciences: Proceedings of the SMABS 1992 conference¡.* (pp. 165–177). Nijmegen: ITS.

Krijnen, W. P., & Kiers, H. A. L. (1995). An efficient algorithm for weighted PCA. *Computational Statistics, 10,* 299–306.

Krijnen, W. P., & Ten Berge, J. M. F. (1991). Contrastvrije oplossingen van het CANDECOMP/PARAFAC-model [Contrast-free solutions of the CANDECOMP/PARAFAC-model]. *Kwantitatieve Methoden, 12,* 87–96.

Krijnen, W. P., & Ten Berge, J. M. F. (1992). A constrained PARAFAC method for positive manifold data. *Applied Psychological Measurement, 16,* 295–305.

Krolak-Schwerdt, S. (1991a). *Modelle der dreimodalen Faktorenanalyse.* Frankfurt am Main: Peter Lang.

Krolak-Schwerdt, S. (1991b). Modelle der dreimodalen Faktorenanalyse: Formale Eigenschaften, theoretische Zusammenhänge und ihre Implikationen für das Konzept individueller Differenzen. *Psychologische Beiträge, 33,* 314–346.

Krolak-Schwerdt, S., & Kohler, A. (1989). Relations between models for three-way factor analysis and multidimensional scaling. In O. Opitz (Ed.), *Conceptual and numerical analysis of data.* (pp. 147–158). Berlin: Springer.

Krolak-Schwerdt, S., Orlik, P., & Ganter, B. (1994). TRIPAT: A model for analyzing three-mode binary data. In H. H. Bock, W. Lenski, & M. M. Richter (Eds.), *Information systems and data analysis: Prospects-foundations-applications.* (pp. 298–307). Berlin: Springer.

Kroonenberg, P., & De Leeuw, J. (1978). TUCKALS2: Een hoofdassenanalyse voor drieweggegevens [TUCKALS2: A principal component analysis for three-mode data]. *Methoden en Data Nieuwsbrief, 3,* 30–53.

Kroonenberg, P. M. (1982). TUCKALS3: A program for three-mode principal component analysis. *Kwantitatieve Methoden, 3,* 65–94.

Kroonenberg, P. M. (1983a). Annotated bibliography of three-mode factor analysis. *British Journal of Mathematical and Statistical Psychology, 36,* 81–113.

Kroonenberg, P. M. (1983b). Correlational structure of the subtests of the Snijders-Oomen non-verbal intelligence scale. *Kwantitatieve Methoden, 4,* 40–51.

Kroonenberg, P. M. (1983c). *Three-mode principal component analysis: Theory and applications (Errata, 1989; available from the author).* Leiden: DSWO Press.

Kroonenberg, P. M. (1984a). *Centring three-mode data: Views, problems, and queries. A discussion with Harshman and Lundy.* (WEP Reeks No. WR 84-54-IN). Leiden, The Netherlands: Department of Education, Leiden University.

Kroonenberg, P. M. (1984b). Three-mode principal component analysis: Illustrated with an example from attachment theory. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 64–103). New York: Praeger.

Kroonenberg, P. M. (1985). Three-mode principle components analysis of semantic differential data: The case of a triple personality. *Applied Psychological Measurement, 9,* 83–94.

Kroonenberg, P. M. (1986). *The three-mode world.* (WEP Reeks No. WR 86-01-LE). Leiden, The Netherlands: Department of Education, Leiden University.

Kroonenberg, P. M. (1987a). Multivariate and longitudinal data on growing children. Introduction to the proposed solutions. In J. Janssen, F. Marcotorchino, & J. M. Proth (Eds.), *Data analysis. The ins and outs of solving real problems.* (pp. 7–11). New York: Plenum.

Kroonenberg, P. M. (1987b). Multivariate and longitudinal data on growing children. Solutions using a three-mode principal component analysis and some comparison results with other approaches. In J. Janssen, F. Marcotorchino, & J. M. Proth (Eds.), *Data analysis. The ins and outs of solving real problems.* (pp. 89–112). New York: Plenum.

Kroonenberg, P. M. (1988a). Three-mode analysis. In S. Kotz & N. L. Johnson (Eds.), *Encyclopedia of statistical sciences. Vol. 9.* (pp. 231–236). New York: Wiley.

Kroonenberg, P. M. (1988b). TUCKALS2. Three-mode principal component analysis with extended core matrix. In A. di Ciaccio & G. Bove (Eds.), *Multiway '88. Software guide.* (pp. 93–103). Rome, Italy: Università di Roma "La Sapienza".

Kroonenberg, P. M. (1988c). TUCKALS3. Three-mode principal component analysis. In A. di Ciaccio & G. Bove (Eds.), *Multiway '88. Software guide.* (pp. 105–114). Rome, Italy: Università di Roma "La Sapienza".

Kroonenberg, P. M. (1989a, 17-19 July). *Aspects of genotype-environment interactions for several attributes.* Paper presented at the 6th European Meeting of the Psychometric Society, Place unknown.

Kroonenberg, P. M. (1989b). Singular value decompositions of interactions in three-way contingency tables. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 169–184). Amsterdam: Elsevier.

Kroonenberg, P. M. (1989c). The analysis of multiple tables in factorial ecology. III. Three-mode principal component analysis: "Analyse triadique complète". *Acta Oecologica. Oecologica Generalis*, *10*, 245–256.

Kroonenberg, P. M. (1990a). Review of Borg and Lingoes' "Multidimensional similarity structure analysis". *Psychometrika*, *55*, 169–172.

Kroonenberg, P. M. (1990b). Three-mode analysis by example. In *Metodoloxía da Investigacíon Científica.* (pp. 105–126). Santiago de Compostela, Spain: Servicio de Publicacíons e Intercambio Científico.

Kroonenberg, P. M. (1992a). PARAFAC in three-way land. Comment on the paper "Multilinear models: applications in spectroscopy". *Statistical Science*, *7*, 312–314.

Kroonenberg, P. M. (1992b). Three-mode component models: A survey of the literature. *Statistica Applicata*, *4*, 619–633.

Kroonenberg, P. M. (1993, July). *Three-way methods for multivariable-multioccasion matrices.* Paper presented at the 8th European Meeting of the Psychometric Society, Barcelona, Spain.

Kroonenberg, P. M. (1994). The TUCKALS line: A suite of programs for three-way data analysis. *Computational Statistics and Data Analysis*, *18*, 73–96.

Kroonenberg, P. M. (1995). *Introduction to biplots for G×E tables.* (Research report No. 51). Brisbane, Australia: Centre for Statistics, University of Queensland.

Kroonenberg, P. M. (1996a). *3WAYPACK Menu Structure.* (Technical report+software). Leiden, The Netherlands: Department of Education, Leiden University.

Kroonenberg, P. M. (1996b). *3WAYPACK User's manual: A package of three-way programs.* (Technical report+software). Leiden, The Netherlands: Department of Education, Leiden University.

Kroonenberg, P. M. (1997b). Recent developments in three-way data analysis: A showcase of methods and examples. In R. Klar & O. Opitz (Eds.), *Classification and Knowledge Organization¡.* (pp. 44–62). Berlin: Springer.

Kroonenberg, P. M. (1998). Studying the diffusion of three-mode analysis in chemistry: Design considerations. In A. Rizzi, M. Vichi, & H.-H. Bock (Eds.), *Advances in data science and classification.* (pp. 603–611). Berlin: Springer.

Kroonenberg, P. M. (2001). Three-mode correspondence analysis: An illustrated exposé. In *Actes des XXXIIIèmes Journée de Statistique.* (pp. 101–108). Nantes.

Kroonenberg, P. M., & Basford, K. E. (1989). An investigation of multi-attribute genotype response across environments using three-mode principal component analysis. *Euphytica*, *44*, 109–123.

Kroonenberg, P. M., & Basford, K. E. (2002). *Applied Three-Mode Data Analysis. Chapter: Three-Mode Clustering.* (Research Report No. 104). Brisbane, Australia: Centre of Statistics, University of Queensland.

Kroonenberg, P. M., Basford, K. E., & Ebskamp, A. G. M. (1995). Three-way cluster and component analysis of maize variety trials. *Euphytica, 84*, 31–42.

Kroonenberg, P. M., Basford, K. E., & Van Dam, M. (1995). Classifying infants in the Strange Situation with three-way mixture method clustering. *British Journal of Psychology, 86*, 397–418.

Kroonenberg, P. M., & De Leeuw, J. (1977). *TUCKALS2: A principal component analysis of three mode data.* (Research Bulletin No. RB 001-'77)). Leiden, The Netherlands: Department of Data Theory, Leiden University.

Kroonenberg, P. M., & De Leeuw, J. (1980). Principal component analysis of three-mode data by means of alternating least squares algorithms. *Psychometrika, 45*, 69–97.

Kroonenberg, P. M., & Kashima, Y. (1997). Rules in context. A three-mode principal component analysis of Mann et al.'s data on cross-cultural differences in respect for others. *Journal of Cross-Cultural Psychology, 28*, 463–480.

Kroonenberg, P. M., Lammers, C. J., & Stoop, I. (1985). Three-mode principal component analysis of multivariate longitudinal organizational data. *Sociological Methods and Research, 14*, 99–136.

Kroonenberg, P. M., & Miyano, H. (1986). Tucker2 moderuniyoru tahenryô jikeiretu dêta no kaiseki - takaku seityô dêta [Analysis of multivariate longitudinal data by the Tucker2 model - growth curves data]. *Bulletin of Industrial Products Research Institute, 105*, 1–7.

Kroonenberg, P. M., & Miyano, H. (1996c). Three-way data analysis and its recent developments (in Japanese). *Japanese Psychological Review, 39*, 386–407.

Kroonenberg, P. M., Murakami, T., & Coebergh, J. W. W. (2002). Added value of three-way methods for the analysis of mortality trends illustrated with worldwide female cancer mortality (1968-1985). *Statistical Methods in Medical Research, 11*, 275–292.

Kroonenberg, P. M., & Snyder Jr, C. W. (1989). Individual differences in assimilation resistance and affective responses in problem solving. *Multivariate Behavioral Research, 24*, 257–284.

Kroonenberg, P. M., & Ten Berge, J. M. F. (1987). Cross-validation of the WISC-R factorial structure using three-mode principal components analysis and perfect congruence analysis. *Applied Psychological Measurement, 11*, 195–210.

Kroonenberg, P. M., & Ten Berge, J. M. F. (1989). Three-mode principal component analysis and perfect congruence analysis for sets of covariance matrices. *British Journal of Mathematical and Statistical Psychology, 42*, 63–80.

Kroonenberg, P. M., Ten Berge, J. M. F., Brouwer, P., & Kiers, H. A. L. (1989). Gram-Schmidt versus Bauer-Rutishauser in alternating least-squares algorithms for three-mode principal component analysis. *Computational Statistics Quarterly, 5*, 81–87.

Kroonenberg, P. M., & Van der Kloot, W. A. (1984). Review of "Introduction to multidimensional scaling: Theory, methods, and applications.". *Nederlands Tijdschrift voor de Psychologie, 39*, 56–58.

Kroonenberg, P. M., & Van der Kloot, W. A. (1987, July). *Three-mode reduced-rank and redundancy analysis.* Paper presented at the 5th Meeting of the Psychometric Society, Twente, The Netherlands.

Kroonenberg, P. M., & Van der Voort, T. H. A. (1987). Multiplicatieve decompositie van interacties bij oordelen over de werkelijkheidswaarde van televisiefilms [Multiplicative decomposition of interactions for judgements of realism of television films]. *Kwantitatieve Methoden, 8*, 117–144.

Kroonenberg, P. M., & Van IJzendoorn, M. H. (1987). Exploring children's behavior in the Strange Situation. In L. W. C. Tavecchio & M. H. van IJzendoorn (Eds.), *Attachment in social networks: Contributions to the Bowlby-Ainsworth attachment theory.* (pp. 379 –425). Amsterdam: North Holland.

Kroonenberg P. M. and Heiser, W. J. (1998). Parallel factor analysis with constraints on the configurations: An overview. In C. Hayashi, N. Ohsumi, K. Yajima, Y. Tanaka, H.-H. Bock, & Y. Baba (Eds.), *Data Science, Classification, and Related Methods.* (pp. 587–597). Tokyo: Springer.

Kruskal, J. B. (1976). More factors than subjects, tests and treatments: An indeterminacy theorem for canonical decomposition and individual differences scaling. *Psychometrika, 41,* 281–293.

Kruskal, J. B. (1977). Three-way arrays: Rank and uniqueness of trilinear decompositions, with application to arithmetic complexity and statistics (Corrections, 17-1-1984; available from author). *Linear Algebra and Its Applications, 18,* 95–138.

Kruskal, J. B. (1981). Multilinear models for data analysis. *Behaviormetrika, 10,* 1–20.

Kruskal, J. B. (1983a). Multilinear methods. *Proceedings of Symposia in Applied Mathematics, 28,* 75–104.

Kruskal, J. B. (1983b). *Statement of some current results about three-way arrays.* (Informal notes). Month unknown: Place unknown.

Kruskal, J. B. (1984). Multilinear methods. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 36–62). New York: Praeger.

Kruskal, J. B. (1985). *Rank of N-way arrays and the geometry of $2 \times 2 \times 2$ arrays.* (Technical Memorandum). Murray Hill NJ: ATandT Bell Laboratories.

Kruskal, J. B. (1989). Rank, decomposition, and uniqueness for 3-way and *N*-way arrays. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 7–18). Amsterdam: Elsevier.

Kruskal, J. B., Harshman, R. A., & Lundy, M. E. (1983, Month unknown). *Some relationships between Tucker's three-mode factor analysis and PARAFAC/CANDECOMP.* Paper presented at the Annual Meeting of the Psychometric Society, Los Angeles CA.

Kruskal, J. B., Harshman, R. A., & Lundy, M. E. (1985, Month unknown). *Several mathematical relationships between PARAFAC-CANDECOMP and 3-mode factor analysis.* Paper presented at the Annual Meeting of the Classification Society, St John, Newfoundland, Canada.

Kruskal, J. B., Harshman, R. A., & Lundy, M. E. (1989). How 3-MFA data can cause degenerate PARAFAC solutions, among other relationships. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 115–122). Amsterdam: Elsevier.

Krzanowski, W. J. (1979). Between-groups comparison of principal components. *Journal of the American Statistical Association, 74,* 703–707.

Krzanowski, W. J. (1990). Between-group analysis with heterogeneous covariance matrices: The common principal component model. *Journal of Classification, 7,* 81–98.

Kuriyama, H., Inukai, Y., Miyano, H., Taya, H., Nagamura, N., & Kodama, H. (1987). Psycho-physiological measurement of combined effects of infrasound and audible noise. *The Controling of Noise, 89,* 1–16.

Kuze, T., Goto, M., Ninomiya, K., Asano, K., Miyazawa, S., Munekata, H., Ohno, H., & Uchiyama, I. (1985). A longitudinal study on development of adolescents' social attitudes. *Japanese Psychological Research, 27,* 195–205.

Ladefoged, P., Harshman, R., Goldstein, L., & Rice, L. (1978). Generating vocal tract shapes from formant frequencies. *Journal of the Acoustical Society of America, 64,* 1027–1035.

LaFaye, J. Y. (1985). Application du modèle INDSCAL. *Statistique et Analyse de Données, 10,* 83–102.

LaFosse, R. (1985). *Generalized redundancy analyses and maximal agreement.* (Research Report). Toulouse, France: University Paul-Sabatier.

LaFosse, R. (1997). Analyse de concordance de deux tableaux: Monogames, simultanéités et découpages. *Revue de Statistique Appliquée, 45,* 45–72.

LaFosse, R., & Hanafi, M. (1997). Concordance d'un tableau avec *K* tableaux: Définition de $K + 1$ uples synthétiques. *Revue de Statistique Appliquée, 45,* 111–126.

Lammers, C. J. (1974). *Groei en ontwikkeling van de ziekenhuisorganisaties in Nederland* . [Growth and development of hospital organisations in the Netherlands] (Interim Report). Leiden, The Netherlands: Institute of Sociology, Leiden University.

Landis, D., & O'Shea, W. A. (2000). Cross-cultural aspects of passionate love: An individual differences analysis. *Journal of Cross-cultural Psychology*, *31*, 752–777.

Langeheine, R. B. (1982). Lingoes-Borg Procrustean individual differences scaling. *Psychometrika*, *47*, 427–442.

Langlois, A. (1983). Les transformations de l'espace social de la ville: Une application de l'analyse factorielle à trois entrées. *Le Géographe Canadien*, *27*, 67–73.

Lappe, H. (1991). *Perceptions of drug risk: Individual and public responses to drugs.* Unpublished doctoral dissertation, Technische Universität, Berlin, Germany.

Lastovicka, J. L. (1981). The extension of component analysis to four-mode matrices. *Psychometrika*, *46*, 47–57.

Lavit, C. (1985). Application de la methode STATIS. *Statistique et Analyse de Données*, *10*, 103–116.

Lavit, C. (1986, Month unknown). *Analyse conjointe de plusieurs tableaux: Exemple d'utilisation du programme STATIS de la bibliothèque MODULAD.* [Simultaneous analysis of several data matrices. An example of the use of the STATIS program as incorporated in the MODULAD software library]. Paper presented at the Statistical Meeting of the Association for Methodology and Research in Psychiatry., Lille, France.

Lavit, C. (1988). *Analyse conjointe de tableaux quantitatifs.* [Simultaneous analysis of several quantitative matrices]. Paris: Masson.

Lavit, C., Escoufier, Y., Sabatier, R., & Traissac, P. (1994). The ACT (STATIS method). *Computational Statistics and Data Analysis*, *18*, 97–119.

Lavit, C., & Pernin, M.-O. (1987). Multivariate and longitudinal data on growing children: Solution using STATIS. In J. Janssen, F. Marcotorchino, & J. M. Proth (Eds.), *Data analysis. The ins and outs of solving real problems.* (pp. 13–29). New York: Plenum.

Lavit, C., & Roux, C. (1984). *Analyse conjointe de plusieurs tableaux de données par la méthode STATIS.* [Simultaneous analysis of several datamatrices using the STATIS method] (Technical report No. 8402). Montpellier, France: Unité de Biométrie.

Law, H. G., Snyder, C. W., & Jr. (1979). Three-mode models for the analysis of psychological data. *Australian Psychologist*, *14*, 214.

Law, H. G., Snyder, C. W., & Jr. (1981). An introduction to the analysis of covariance structures: A general model for data analysis. In J. M. Morris (Ed.), *Proceedings of a seminar on measuring social behaviour in road research.* (pp. 49–60). Vermont South, Vic, Australia: Australian Road Research Board.

Law, H. G., Snyder, C. W., Jr., Hattie, J. A., & McDonald, R. P. (Eds.). (1984). *Research methods for multimode data analysis.* New York: Praeger.

Leah, J. A., Law, H. G., Snyder, C. W., & Jr. (1979). The structure of self-reported difficulty in assertiveness: An application of three-mode common factor analysis. *Multivariate Behavioral Research*, *14*, 443–462.

Lechevalier, F. (1987). *L'Analyse de l'évolution dans STATIS: Une solution et des généralisations.* (Technical report). Lille, France: Faculty of Economic and Social Sciences, University of Science and Technology.

Lechevalier, F. (1990a). L'Analyse en composantes conjointes d'une famille de triplets indexés. *Statistique et Analyse des Données*, *15*, 35–75.

Lechevalier, F. (1990b). *L'Analyse factorielle conjointe d'une famille de triplets indexés.* Unpublished doctoral dissertation, University of Science and Technology, Lille, France.

Lee, C.-H. (1988). *Multilinear analysis of fluorescence spectra of photosynthetic systems.* Unpublished doctoral dissertation, The Ohio State University, Columbus OH.

Lee, C.-H., Kim, K., & Ross, R. T. (1991). Trilinear analysis for the resolution of overlapping fluorescence spectra. *Korean Biochemical Journal*, *24*, 374–379.

Lee, J. K., Ross, R. T., Thampi, S., & Leurgans, S. (1992). Resolution of the properties of hydrogen-bonded tyrosine using a trilinear model of fluorescence. *Journal of Physical Chemistry*, *96*, 9158–9162.

Lee, S.-Y., & Fong, W.-K. (1983). A scale invariant model for three-mode factor analysis. *British Journal of Mathematical and Statistical Psychology, 36*, 217–223.

Leenen, I., Van Mechelen, I., & De Boeck, P. (1999). INDCLAS: A three-way hierarchical classes model. *Psychometrika, 64*, 9–24.

Lefkovitch, L. P. (1993). Consensus principal components. *Biometrical Journal, 35*, 567–580.

Leibovici, D., & Elmaache, H. (1997). A singular value decomposition of an element belonging to a tensor product of kappa separable hilbert spaces. *Comptes Rendus de l'Académie des Sciences Série I - Mathématique, 325*, 779–782.

Leibovici, D., & Sabatier, R. (1998). A singular value decomposition of a k-way array for a principal component analysis of multiway data, PTA-K. *Linear Algebra and its Applications, 269*, 307–329.

Leichner, R. (1975). Zur Verarbeitung psychiatrischer Information I [Processing psychiatric information I]. *Diagnostica, 21*, 147–166.

Leurgans, S., & Ross, R. T. (1992). Multilinear models: Applications in spectroscopy (with discussion). *Statistical Science, 7*, 289–319.

Leurgans, S. E. (1991). *Multilinear models: Array formulas.* (Technical report No. 473). Columbus OH: Department of Statistics, Ohio State University.

Leurgans, S. E., Ross, R. T., & Abel, R. B. (1993). A decomposition for 3-way arrays. *SIAM Journal on Matrix Analysis and Applications, 14*, 1064–1083.

Levin, J. (1963). Three-mode factor analysis. *Dissertation Abstracts International, 24*, 5530–5531.

Levin, J. (1965). Three-mode factor analysis. *Psychological Bulletin, 64*, 442–452.

Levin, J. (1966). Simultaneous factor analysis of several Gramian matrices. *Psychometrika, 31*, 413–419.

L'Hermier des Plantes, H. (1976). *Structuration des tableaux à trois indices de la statistique: Théorie et application d'une méthode d'analyse conjointe.* [Statistical structuring of three-way tables: Theory and application of a conjoint analysis method]. Unpublished doctoral dissertation, University of Science and Technology of Languedoc, Montpellier, France.

Li, S. S., & Gemperline, P. J. (1993). Eliminating complex eigenvectors and eigenvalues in multiway analyses using the direct trilinear decomposition method. *Journal of Chemometrics, 7*, 77–88.

Li, S. S., Gemperline, P. J., Briley, K., & Kazmierczak, S. (1994). Identification and quantitation of drugs of abuse in urine using the generalized rank annihilation method of curve resolution. *Journal of Chromatography B: Biomedical Applications, 655*, 213–223.

Lickteig, T. (1985). Typical tensorial rank. *Linear Algebra and Its Applications, 69*, 95–120.

Lilly, R. S. (1966). A developmental study of the semantic differential. *Dissertation Abstracts International, 26*, 4063–4064.

Lin, Z. H., Booksh, K. S., Burgess, L. W., & Kowalski, B. R. (1994). Second-order fiber optic heavy metal sensor employing second-order tensorial calibration. *Analytical Chemistry, 66*, 2552–2560.

Lindgren, F., & Geladi, P. (1992). Multivariate spectrometric image analysis: An illustrative study with two constructed examples of metal ions in solution. *Chemometrics and Intelligent Laboratory Systems, 14*, 397–412.

Lingoes, J. C. (1982). Progressively complex linear transformations for finding geometric similarities among data structures. In H. C. Hudson (Ed.), *Classifying social data.* (pp. 108–126). San Francisco: Jossey-Bass.

Lingoes, J. C., & Borg, I. (1978). A direct approach to individual differences scaling using increasingly complex transformations. *Psychometrika, 43*, 491–519.

Lingoes, J. C., & Borg, I. (1984). A direct approach to individual differences scaling using increasingly complex transformations. In H. G. Law, C. W. Snyder, Jr., J. A. Hattie, & R. P. M. . (Eds.), *Research methods for multimode data analysis.* (pp. 403–439). New York: Praeger.

Linker, W. J. (1982). Articulatory and acoustic correlates of labial activity in vowels: A cross-linguistic study. *Dissertation Abstracts International*, *43*, 2336.

Lipovetskii, S. S. (1984). Component analysis of tables with many inputs. *Industrial Laboratory*, *50*, 474–481.

Liu, Y., & Dengler, N. G. (1994). Bundle sheath and mesophyll cell differentiation in the C4 dicotyledon *Atriplex rosea*: Quantitative ultrastructure. *Canadian Journal of Botany*, *72*, 644–657.

Lohmöller, J.-B. (1978a). *Stabilität und Kontinuität in Längsschnittdaten, analysiert durch T- und trimodale Faktorenanalyse.* [Stability and continuity in longitudinal data, analysed by T-factor analysis and three-mode factor analysis] (Internal report (Revision 1981)). München, Germany: Department of Education, University of the Federal Armed Forces.

Lohmöller, J.-B. (1978b, 15-17 June). *How longitudinal factor stability, continuity, differentiation, and integration are portrayed into the core matrix of three-mode factor analysis.* Paper presented at the European Meeting on psychometrics and mathematical psychology., Uppsala, Sweden.

Lohmöller, J.-B. (1979). Die trimodale Faktorenanalyse von Tucker: Skalierungen, Rotationen, andere Modelle [Tucker's three-mode factor analysis: Scaling, rotations, other models]. *Archiv für die Psychologie*, *131*, 137–166.

Lohmöller, J.-B. (1989). *Latent variable path modeling with partial least squares.* Heidelberg, Germany: Physica.

Lohmöller, J.-B., & Oerter, R. (Eds.). (1979). *Medien in der Erzieherausbildung: Erprobung des Medienverbundes "Vorschulische Erziehung im Ausland".* [Media in education: Investigation of the media project "Preschool education in other countries"]. München, Germany: Oldenburg Verlag.

Lohmöller, J.-B., & Wold, H. (1980). *Three-mode path models with latent variables and partial least squares (PLS) parameter estimation.* [Revised 1982] (Research Report No. 80.03). München, Germany: Department of Education, University of the Federal Armed Forces.

Lombardo, R. (1994). *Modelli di decomposizione per l'analisi della dipendenza nelle tabelle di contingenza a tre vie.* [Decomposition models for dependency analysis in three-way contingency tables]. Unpublished doctoral dissertation, Department of Mathematics and Statistics, University of Napels, Naples, Italy.

Lombardo, R., Carlier, A., & D'Ambra, L. (1996). Nonsymmetric correspondence analysis for three-way contingency tables. *Methodologica*, *4*, 59–80.

London, M., Crandall, R., & Fitzgibbons, D. (1977). The psychological structure of leisure: Activities, needs, people. *Journal of Leisure Research*, *9*, 252–263.

Lorber, A., Faber, K., & Kowalski, B. R. (1997). Net analyte signal calculation in multivariate calibration. *Analytical Chemistry*, *69*, 1620–1626.

Losada, M. A., Medina, R., Vidal, C., & Losada, I. J. (1992). Temporal and spatial cross-shore distributions of sediment at "El Puntal" spit, Santander, Spain. In *Coastal Engineering 1992, Proceedings of the Twenty-Third International Conference.* (pp. 2251–2264). Venice, Italy.

Louwerse, D. J., & Smilde, A. K. (2000). Multivariate statistical process control of batch processes based on three-way models. *Chemical Engineering Science*, *55*, 1225–1235.

Louwerse, D. J., Smilde, A. K., & Kiers, H. A. L. (1999). Cross-validation of multiway component models. *Journal of Chemometrics*, *13*, 491–510.

Love, W. D., & Tucker, L. R. (1970). *A three-mode factor analysis of serial learning.* (Report). Place unknown: Office Naval Research.

Luan, S., Pang, H. M., & Houk, R. S. (1995). Application of generalized standard additions method to inductively-coupled plasma-atomic emission-spectroscopy with an echelle spectrometer and segmented-array charge-coupled detectors. *Spectrochimica Acta Part B - Atomic Spectroscopy*, *50*, 791–801.

Lundy, M. E., & Harshman, R. A. (1985a). *Reference manual for the PARAFAC analysis package.* (Computer manual). London, Ontario, Canada: Scientific Software Associates.

Lundy, M. E., Harshman, R. A., & Kruskal, J. B. (1985b, Month unknown). *A two-stage procedure incorporating good features of both trilinear and quadrilinear models.* Paper presented at the annual Meeting of the Classification Scoiety., St John, Newfoundland, Canada.

Lundy, M. E., Harshman, R. A., & Kruskal, J. B. (1989). A two-stage procedure incorporating good features of both trilinear and quadrilinear models. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 123–130). Amsterdam: Elsevier.

MacCallum, R. (1988). Multidimensional scaling. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate experimental psychology.* (2nd edition ed., pp. 421–445). New York: Plenum Press.

MacCallum, R. C. (1974a). *A comparison of two individual differences models for multi-dimensional scaling: Carroll and Chang's INDSCAL and Tucker's three-mode factor analysis.* Unpublished doctoral dissertation, University of Illinois, Urbana IL.

MacCallum, R. C. (1974b). A comparison of two individual differences models for multi-dimensional scaling: Carroll and Chang's INDSCAL and Tucker's three-mode factor analysis. *Dissertation Abstracts International, 35*, 3619.

MacCallum, R. C. (1976a). Effects on INDSCAL of non-orthogonal perceptions of object space dimensions. *Psychometrika, 41*, 177–188.

MacCallum, R. C. (1976b). Transformation of a three-mode multidimensional scaling solution to INDSCAL form. *Psychometrika, 41*, 385–400.

MacCallum, R. C. (1978). TRINFORM: A computer program to transform a three-mode multidimensional scaling solution to INDSCAL form. *Applied Psychological Measurement, 2*, 62.

MacCallum, R. C. (1979). 3-mode-MDS: A computer program to execute Tucker's three-mode multidimensional scaling. *Applied Psychological Measurement, 3*, 24.

MacGregor, J. F., & Kourti, T. (1995). Statistical process control of multivariate processes. *Control Engineering Practice, 3*, 403–414.

Maeda, S. (1992). Articulatory modeling of the vocal-tract. *Journal de Physique IV, 2*, 307–314.

Mansurov, H. H., Muratov, F. H., & Timerkaev, V. S. (1986, 1-5 September). *Computational methods of the data-cube analysis in the chronic hepatic lesion research.* Paper presented at COMPSTAT 86, Rome, Italy.

Marasinghe, M. G., & Boik, R. J. (1993). A three-degree of freedom test of additivity in three-way classifications. *Computational Statistics and Data Analysis, 16*, 47–61.

Marchand, B. (1984). Urban growth models revisited: Cities as self-organizing systems. *Environment and Planning A, 16*, 949–964.

Marchetti, G. M. (1988). *Three-way analysis of two-mode matrices of qualitative data.* (Research report No. 10). Florence, Italy: Department of Statistics, Univeristy of Florence.

Marimont, D. H., & Wandell, B. A. (1992). Linear-models of surface and illuminant spectra. *Journal of the optical society of america a-optics image science and vision, 9*, 1905–1913.

Martens, H. (1980). On the calibration of a multivariate instrument for quantitative estimation of individual components in a mixture. In A. Höskuldsson, K. Conradsen, B. S. Jensen, & K. E. . (Eds.), *Symposium I Anvendt Statistik.* (pp. 393–414). Lyngby, Denmark: Technical University of Denmark.

Martins, J. A., Sena, M. M., Poppi, R. J., & Pessine, F. B. T. (1999). Fluorescence Piroxi-cam study in the presence of cyclodextrins by using the PARAFAC method. *Applied Spectroscopy, 53*, 510–522.

Mayekawa, S. (1987). Maximum likelihood solution to the PARAFAC model. *Behaviormetrika, 21*, 45–63.

McAdams, S., Winsberg, S., Donnadieu, S., De Soete, G., & Krimphoff, J. (1995). Perceptual scaling of synthesized musical timbres: Common dimensions, specificities, and latent subject classes. *Psychological Research, 58*, 177–192.

McArdle, J. J. (1984). On the madness in his method: R. B. Cattell's contributions to structural equation modeling. *Multivariate Behavioral Research*, *19*, 245–267.

McCloskey, J., & Jackson, P. R. (1979). Three-mode: a FORTRAN IV program for three-mode factor analysis. *Behavior Research Methods and Instrumentation*, *11*, 75–76.

McDonald, R. P. (1969). A generalized common factor analysis based on residual covariance matrices of prescribed structure. *The British Journal of Mathematical and Statistical Psychology*, *22*, 149–163.

McDonald, R. P. (1980). A simple comprehensive model for the analysis of covariance structures: Some remarks on applications. *The British Journal of Mathematical and Statistical Psychology*, *33*, 161–183.

McDonald, R. P. (1984). The invariant factors model for multimode data. In H. G. Law, C. W. Snyder, Jr., J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 285–307). New York: Praeger.

McLachlan, G. J., & Basford, K. E. (1988). *Mixture models: Inference and applications to clustering.* New York: Marcel Dekker.

Medina, R., Losada, M. A., Losada, I. J., & Vidal, C. (1994). Temporal and spatial relationship between sediment grain-size and beach profile. *Marine Geology*, *118*, 195–206.

Meijs, B. W. G. P. (1980). *Huis van bewaring en subkultuur: een empirische studie bij jeugdige gedetineerden naar het effect van '102 dagen' preventieve hechtenis op attituden en andere indikatoren van subkultuur.* [Detention centre and subculture: An empirical study with young detainees of the effect of '102 days' of preventative custody on attitudes and other indicators of subculture] (Unpublished masters thesis). Leiden, The Netherlands: Leiden University.

Meulman, J. J. (1989). Distance analysis in reduced canonical spaces. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 233–244). Amsterdam: Elsevier.

Meulman, J. J., & Verboon, P. (1993). Points of view analysis revisited: fitting multidimensional structures to optimal distance components with cluster restrictions on the variables. *Psychometrika*, *58*, 7–35.

Meuwese, W. (1970). Een vergelijking van twee methoden van beoordeling van verbale stimuli [A comprison of two methods of evaluation of verbal stimuli]. *Nederlands Tijdschrift voor de Psychologie*, *25*, 594–603.

Meyer, J. P. (1980). Causal attribution for succes and failure: A multivariate investigation of dimensionality, formation, and consequences. *Journal of Personality and Social Psychology*, *38*, 704–718.

Meyer, P., Wilhelms, R., & Strube, H. W. (1989). A quasiarticulatory speech synthesizer for German language running in real-time. *Journal of the Acoustical Society of America*, *86*, 523–539.

Michailidis, G., & De Leeuw, J. (2000). Multilevel homogeneity analysis with differential weighting. *Computational Statistics and Data Analysis*, *32*, 411–442.

Miller, K., & Gelman, R. (1983). The child's representation of number: A multidimensional scaling analysis. *Child Development*, *54*, 1470–1479.

Millican, D. W., & McGown, L. B. (1990). Fluorescence lifetime resolution of spectra in the frequency domain using multiway analysis. *Analytical Chemistry*, *62*, 2242–2247.

Mills, D. H., & Tucker, L. R. (1966). A three-mode factor analysis of clinical judgment of schizophrenicity. *Journal of Clinical Psychology*, *2*, 136–139.

Millsap, R. E., & Meredith, W. (1991). Some mathematical relationships between three-mode component analysis and stationary component analysis. *Multivariate Behavioral Research*, *26*, 413–419.

Mirkin, B. G. (1987). Additive clustering and qualitative factor analysis methods for similarity matrices. *Journal of Classification*, *4*, 7–31.

Mitchell, B. C., & Burdick, D. S. (1993). An empirical comparison of resolution methods for three-way arrays. *Chemometrics and Intelligent Laboratory Systems*, *20*, 149–161.

Mitchell, B. C., & Burdick, D. S. (1994). Slowly converging PARAFAC sequences: Swamps and two-factor degeneracies. *Journal of Chemometrics*, *8*, 155–168.

Miyano, H. (1996). Three-way data analysis based on Tucker2 model: A method utilizing a priori information on some model parameters. *Japanese Psychological Review*, *39*, 429–438 (in Japanese with English abstract.).

Miyano, H., & Inukai, Y. (1982). Sequential estimation in multidimensional scaling. *Psychometrika*, *47*, 321–336.

Miyano, H., & Inukai, Y. (1983). Measurement that is easily affected by psychological and conscious processes. *Journal of Instrumentation and Control*, *22*, 30–36.

Mizère, D. (1981). *Analyse d'un cube de données: décomposition tensorielle et liens entre procédures de comparaison de tableaux rectangulaires de données.* [Analysis of a data cube: Tensorial decomposition and links with procedures to compare rectangular data matrices]. Unpublished doctoral dissertation, Scientific and Medical University of Grenoble, Grenoble, France.

Mizère, D. (1984). L'Aspect choix de métrique dans l'analyse d'un cube de contingence. *Afrika Matematika*, *6*, 49–68.

Möcks, J. (1988a). Decomposing event-related potentials: A new topographic components model. *Biological Psychology*, *26*, 199–215.

Möcks, J. (1988b). Topographic components model for event-related potentials and some biophysical considerations. *IEEE Transactions on Biomedical Engineering*, *35*, 482–484.

Montanelli, D. S. (1972). Multiple-cue learning in children. *Developmental Psychology*, *7*, 302–312.

Montano, D., & Adamopoulos, J. (1984). The perception of crowding in interpersonal situations: Affective and behavioral responses. *Environment and Behavior*, *16*, 643–666.

Mooijaart, A. (1992). Three-factor interaction models by log-trilinear terms in three-way contingency tables. *Statistica Applicata*, *4*, 669–677.

Morais, H., Ramos, C., Forgács, E., Cserháti, T., Oliviera, J., & Illés, T. (2001). Three-dimensional principal component analysis employed for the study of the beta-glucosidase prodution of *Lentinus edodes* strains. *Chemometrics and Intelligent Laboratory Systems*, *57*, 57–64.

Munck, L., Nørgaard, L., Engelsen, S. B., Bro, R., & Andersson, C. A. (1998). Chemometrics in food science - a demonstration of the feasibility of a highly exploratory, inductive evaluation strategy of fundamental scientific significance. *Chemometrics and Intelligent Laboratory Systems*, *44*, 31–60.

Murakami, T. (1979). Inshi henka no kijutsu to jun3so inshi bunseki [Description of factor change and quasi three-mode factor analysis]. *Bulletin of the Faculty of Education, Nagoya University*, *26*, 1–16.

Murakami, T. (1981). Saisho jijoho ni yoru jun3so inshi bunseki no algorithm [An algorithm of quasi three-mode factor analysis by the least squares methods]. *Bulletin of the Faculty of Education, Nagoya University*, *28*, 39–59.

Murakami, T. (1983a). 3so data ni okeru inshi henka no kijutsu no tameno sho hoho [Methods for description of factor change in three-mode data (I): Factor analytical models]. *Bulletin of the Faculty of Education, Nagoya University*, *30*, 145–176.

Murakami, T. (1983b). Quasi three-mode principal component analysis - A method for assessing the factor change. *Behaviormetrika*, *14*, 27–48.

Murakami, T. (1985). Tashugo data no tameno tansakuteki inshi bunseki [Exploratory factor analysis of multiset data]. *Bulletin of the Faculty of Education, Nagoya University*, *32*, 75–93.

Murakami, T. (1989). Theory of psychological measurement and the concept of family resemblances (in Japanese, English abstract). *Bulletin of the Faculty of Education, Nagoya University*, *36*, 149–156.

Murakami, T. (1990). On the principal component analysis of multigroup, multiset, and multimode data (in Japanese). *Kodokeiryugaku (Japanese Journal of Behaviormetrics)*, *18*, 28–40.

Murakami, T. (1991). Hierarchical principal component analysis of multiset-multigroup data (in Japanese). *Bulletin of the Faculty of Education, Nagoya University, 38*, 155–166.

Murakami, T. (1998). Tucker2 as a second-order principal component analysis. In C. Hayashi, N. Ohsumi, K. Yajima, Y. Tanaka, H.-H. Bock, & Y. Baba (Eds.), *Data science, classification, and related methods.* (pp. 575–586). Tokyo: Springer.

Murakami, T., Goto, M., & Tsujimoto, H. (1978). 3so inshi bunseki no tekiyo jo no sho mondai [Some problems in the application of three-mode factor analysis]. *Bulletin of the Faculty of Education, Nagoya University, 25*, 19–39.

Murakami, T., & Kroonenberg, P. M. (2001). *Individual differences in semantic differential studies and their analysis by three-way models.* (Technical report). Leiden, The Netherlands: Department of Education, Leiden Univeristy.

Murakami, T., Ten Berge, J. M. F., & Kiers, H. A. L. (1998). A case of extreme simplicity of the core matrix in three-mode principal components analysis. *Psychometrika, 63*, 255–261.

Murdoch, V. J., Snyder, C. W., Jr., Law, H. G., Pamment, P. R., & Payne, P. V. (1985). Environmental evaluations of a "hard hat" residential area in rural Australia. *Journal of Community Psychology, 13*, 360–374.

Muroski, A. R., Booksh, K. S., & Myrick, M. L. (1996). Single-measurement excitation/emission matrix spectrofluorometer for determination of hydrocarbons in ocean water. 1. Instrumentation and background correction. *Analytical Chemistry, 68*, 3534–3538.

Muthén, B., Olsson, U., Pettersson, T., & Stahlberg, G. (1977). Measuring religious attitudes using the semantic differential technique: An application of three-mode factor analysis. *Journal for the Scientific Study of Religion, 16*, 275–288.

Neal, R. J., Snyder Jr, C. W., & Kroonenberg, P. M. (1991). Individual differences and segment interactions in throwing. *Human Movement Journal, 10*, 653–676.

Neuenschwander, B. E., & Flury, B. D. (1995). Common canonical variates. *Biometrika, 82*, 553–560.

Nguyen, N., Hoole, P., & Marchal, A. (1994). Regenerating the spectral shapes of s-phone and sh-phone from a limited set of articulatory parameters. *Journal of the Acoustical Society of America, 96*, 33–39.

Nierop, A. F. M. (1993). The INDRES model: An INDSCAL model with residuals orthogonal to INDSCAL dimensions. In R. Steyer, K. F. Wender, & K. F. Widaman (Eds.), *Psychometric Methodology. Proceedings of the 7th European Meeting of the Psychometric Society in Trierj.* (pp. 366–370). Stuttgart and New York: Gustav Fischer Verlag.

Nilsson, J., De Jong, S., & Smilde, A. K. (1997). Multiway calibration in 3D QSAR. *Journal of Chemometrics, 11*, 511–524.

Nix, D. A., Papcun, G., Hogden, J., & Zlokarnik, I. (1996). Two cross-linguistic factors underlying tongue shapes for vowels. *Journal of the Acoustical Society of America, 99*, 3707–3717.

Nomikos, P., & MacGregor, J. F. (1994). Monitoring batch processes using multiway principal component analysis. *AIChE Journal, 40*, 1361–1375.

Nomikos, P., & MacGregor, J. F. (1995a). Multivariate SPC charts for monitoring batch processes. *Technometrics, 37*, 41–59.

Nomikos, P., & MacGregor, J. F. (1995b). Multi-way partial least squares in monitoring batch processes. *Chemometrics and Intelligent Laboratory Systems, 30*, 97–108.

Nørgaard, L. (1996). Spectral resolution and prediction of slit widths in fluorescence spectroscopy by two- and three-way methods. *Journal of Chemometrics, 10*, 615–630.

Okada, A. (1982). Individual differences multidimensional scaling. *Surikagaku, 230*, 35–40.

Okada, A. (1990). A generalization of asymmetric multidimensional scaling. In M. Schader & W. Gaul (Eds.), *Knowledge, data and computer-assisted decisions.* (pp. 127–138). Berlin: Springer.

Okada, A., & Imaizumi, T. (1980). Nonmetric method for extended INDSCAL model. *Behaviormetrika, 7*, 13–22.

Okada, A., & Imaizumi, T. (1986). How to use nonmetric Euclidean/non-Euclidean weighted multidimensional scaling program (N-NEWMDS version 1.1). *Journal of Applied Sociology*, *3*, 1–81.

Okada, A., & Imaizumi, T. (1993). Further extensions of two-mode three-way asymmetric multidimensional scaling model. *Journal of Applied Sociology*, *35*, 259–277.

Okada, A., & Imaizumi, T. (1999). Two-mode three-way asymmetric multidimensional scaling with constraints on asymmetry. In R. Decker & W. Gaul (Eds.), *Classification and information processing at the turn of the millennium: Proceedings of the 23rd annual conference of the Gesellschaft für Klassifikation.* (pp. 52–59). Bielefield: 10-12 March.

Okada, A., & Marumo, J. (1993). Utilizing MDPREF to disclose between and within group differences. *Sociological Theory and Methods*, *8*, 127–141.

Okada, A., & Takeuchi, Y. (1971). Nonmetric multidimensional scaling of differences among type. *Psychonomic Science*, *25*, 197–198.

Okada A. and Imaizumi, T. (1996). Analyzing friendship ties by using two-mode three-way asymmetric multidimensional scaling (in Japanese with English abstract). *Japanese Psychological Review*, *39*, 459–475.

Okada A. and Imaizumi, T. (1997). Asymmetric multidimensional scaling of two-mode three-way proximities. *Journal of Classification*, *14*, 195–224.

Oort, F. J. (1999). Stochastic three-mode models for mean and covariance structures. *British Journal of Mathematical and Statistical Psychology*, *52*, 243–272.

Oort, F. J. (2001). Three-mode models for multivariate longitudinal data. *British Journal of Mathematical and Statistical Psychology*, *54*, 49–78.

Orekhov, V. Y., Ibraghimov, I. V., & Billeter, M. (2001). MUNIN: A new approach to multi-dimensional NMR spectra interpretation. *Journal of Biomolecular NMR*, *20*, 49–60.

Orlik, P. (1980). Das Summax-Modell der dreimodalen Faktorenanalyse mit interpretierbarer Kernmatrix [The Summax-model of three-mode factor analysis with directly interpretable core matrix]. *Archiv der Psychologie*, *133*, 189–218.

Orlik, P. (1981). Das Summax-Modell der dreimodalen multiplen Prädiktion, gezeigt an einem Demonstrationsexperiment [The Summax-model of three-mode multiple prediction, illustrated with a demonstration experiment]. In W. Janke (Ed.), *Beiträge zur Methodik in der differentiellen, diagnostischen und klinischen Psychologie - Festschrift zum 60. Geburtstag von G. A. Lienert.* (pp. 280–296). Königstein/Ts: Hain.

Ossenkopp, K.-P., & Mazmanian, D. S. (1985). The measurement and integration of behavioral variables: Aggregation and complexity as important issues. *Neurobehavioral Toxicology and Teratology*, *7*, 95–100.

Ossenkopp, K.-P., Sorenson, L., & Mazmanian, D. S. (1994). Factor analysis of open-field behavior in the rat (Rattus norvegicus): Application of the three-way PARAFAC model to a longitudinal data set. *Behavioural Processes*, *31*, 129–144.

Ottaviani, M. G. (1989). *Il comportamento di alcuni stimatori robusti del parametro di locazione in presenza di dati anomali: Un'applicazione del modello Tucker 2.* [The behaviour of a robust location estimator in the presence of deviant data: An application of the Tucker2 model] (Research Report No. A11). Rome, Italy: Department of Statistics, Probability and Applied Statistics, University of Rome "La Sapienza".

Ottaviani, M. G. (1990). *Un'analisi a tre vie della popolazione attiva e non attiva giovane.* [A three-mode analysis of employed and unemployed youths] (Research Report No. A33). Rome, Italy: Department of Statistics, Probability and Applied Statistics, University of Rome "La Sapienza".

Paatero, P. (1997). A weighted non-negative least squares algorithm for three-way "PARAFAC" factor analysis. *Chemometrics and Intelligent Laboratory Systems*, *38*, 223–242.

Paatero, P. (1999). The multilinear engine - a table-driven, least squares program for solving multilinear problems, including the n-way parallel factor analysis model. *Journal of Computational and Graphical Statistics*, *8*, 854–888.

Paatero, P. (2000). Construction and analysis of degenerate PARAFAC models. *Journal of Chemometrics, 14*, 285–299.

Paatero, P., & Andersson, C. A. (1999). Further improvements of the speed of the Tucker3 three-way algorithm. *Chemometrics and Intelligent Laboratory Systems, 47*, 17–20.

Paatero, P., & Hopke, P. K. (2002). Utilizing wind direction and wind speed as independent variables in multilinear receptor modeling studies. *Chemometrics and Intelligent Laboratory Systems, 60*, 25–41.

Paatero, P., Hopke, P. K., & Song, Z., X. - H. and Ramadan. (2002). Understanding and controlling rotations in factor analytic models. *Chemometrics and Intelligent Laboratory Systems, 60*, 253–264.

Paatero, P., & Juntto, S. (2000). Determination of underlying components of a cyclical time series by means of two-way and three-way factor analytic techniques. *Journal of Chemometrics, 14*, 241–259.

Pamment, P. (1987). *Difficulty in assertion: An invariant factors structure analysis.* Unpublished doctoral dissertation, University of Queensland, Brisbane, Australia.

Pastore, A. (1992). Some observations on similarity and lack of duality in interstructure-compromise-intrastructure analysis. *Statistica Applicata, 4*, 679–691.

Pernin, M.-O. (1986). *Contribution à la méthodologie d'analyse de données longitudinales: Exemple de la croissance chez l'être humain (Auxologie).* Unpublished doctoral dissertation, Université Claude Bernard, Lyon I, Lyon, France.

Perrin, N. A., & Ashby, F. G. (1991). A test for perceptual independence with dissimilarity data. *Applied Psychological Measurement, 15*, 79–93.

Persat, H., & Chessel, D. (1989). Size-class ordination: A useful method in the study of fish and invertebrate populations. *Acta Oecologica - Oecologia Generalis, 10*, 175–195.

Pham, T. D., & Möcks, J. (1992). Beyond principal component analysis: A trilinear decomposition model and least squares estimation. *Psychometrika, 57*, 203–215.

Phillips, G. R., & Georghiou, S. (1993). Global analysis of steady-state polarized fluorescence spectra using trilinear curve resolution. *Biophysical Journal, 65*, 918–926.

Pierar, M. G. (1987). De betekenis van leren: Een exploratief onderzoek naar leerconcepties met de semantische differentiaal [the meaning of learning: An explorative study of learning concepts with the semantic differential]. *Tijdschrift voor Onderwijsresearch, 12*, 144–159.

Pieri, L., & Vichi, M. (1991). Three-way matrices and their representive summaries. *Statistica Applicata, 3*, 145–176.

Pieters, R. G. M., & De Klerk-Warmerdam, M. (1996). Ad-evoked feelings: Structure and impact on A_{ad} and recall. *Journal of Business Research, 37*, 105–114.

Pimentel, R. A. (1979). *Morphometrics: The multivariate analysis of biological data .* (Chapter 5: Multigroup principal component analysis. pp. 81-91 ed.). Dubuque: Kendall/Hunt Publishing Company.

Pittam, J., Gallois, C., & Callan, V. (1990). The long-term spectrum and perceived emotion. *Speech Communication, 9*, 177–187.

Pittam, J., Gallois, C., Iwawaki, S., & Kroonenberg, P. M. (1995). Australian and Japanese concepts of expressive behavior. *Journal of Cross-Cultural Psychology, 26*, 451–473.

Polissar, A. V., Hopke, P. K., Paatero, P., Kaufmann, Y. J., Hall, D. K., Bodhaine, B. A., Dutton, E. G., & Harris, J. M. (1999). The aerosol at Barrow, Alaska: Long-term trends and source locations. *Atmospheric Environment, 33*, 2441–2458.

Polit, E. (1986). *Une n-ACP d'un hypercube de données.* [An n-principal component analysis of a data hypercube]. Unpublished doctoral dissertation, University of Social Sciences, Grenoble, France.

Pols, L. C. W. (1983). Three-mode principal component analysis of confusion matrices, based on the identification of Dutch consonants, under various conditions of noise and reverberation. *Speech Communication, 2*, 275–293.

Pravdova, V., Estienne, F., Walczak, B., & Massart, D. L. (2001). A robust version of the Tucker3 model. *Chemometrics and Intelligent Laboratory Systems, 59*, 75–88.

Qannari, A., Qannari, E. M., & Courcoux, P. (1992). Analyse d'un tableau ternaire d'évaluations sensorielles [Analysis of a three-way table of sensory evaluations]. *Revue de Statistique Appliquée*, *40*, 45–58.

Qannari, E. M., Wakeling, I., & MacFie, H. J. H. (1995). A hierarchy of models for analysing sensory data. *Food Quality and Preference*, *6*, 309–314.

Ramsay, J. O., Munhall, K. G., Gracco, V. L., & Ostry, D. J. (1996). Functional data analyses of lip motion. *Journal of the Acoustical Society of America*, *99*, 3718–3727.

Ramsay, J. O., Ten Berge, J., & Styan, G. P. H. (1984). Matrix correlation. *Psychometrika*, *49*, 403–423.

Ray, W. J., & Cole, H. W. (1985). EEG alpha activity reflects attentional demands, and beta activity reflects emotional and cognitive process. *Science*, *228*, 750–752.

Ray, W. J., & Vasey, J. (1985). PARAFAC analysis of psychophysiological data. *Psychophysiology*, *22*, 577.

Rayens, W. S., & Mitchell, B. C. (1997). Two-factor degeneracies and a stabilization of Parafac. *Chemometrics and Intelligent Laboratory Systems*, *38*, 173–181.

Rayner, J. C. W., Best, D. J., & Liddell, G. F. (1991). Optimal testing in a three way ANOVA model. *Communications in Statistics - Simulation*, *20*, 411–425.

Redfield, J. (1978). TMFA: A FORTRAN program for three-mode factor analysis and individual differences multidimensional scaling. *Educational and Psychological Measurement*, *38*, 793–795.

Redfield, J., & Stone, A. A. (1979). Individual viewpoints of stressful life events. *Journal of Consulting and Clinical Psychology*, *47*, 147–154.

Reid, J. C. (1969). A three-mode factor analysis of students' perceptions of a university. *The Journal of Experimental Education*, *36*, 93–96.

Reinikainen, S.-P., Laine, P., Minkkinen, P., & Paatero, P. (2001). Factor analytical study on water quality in Lake Saimaa, Finland. *Fresenius Journal of Analytical Chemistry*, *369*, 727–732.

Reis, M. M., Gurden, S. P., Smilde, A. K., & Ferreira, M. M. C. (2000). Calibration and detailed analysis of second-order flow injection analysis data with rank overlap. *Analytica Chimica Acta*, *422*, 21–36.

Renaud, J. P., Davydov, D. R., Heirwegh, K. P. M., Mansuy, D., & Hoa, G. (1996). Thermodynamic studies of substrate binding and spin transitions in human cytochrome P-450 3A4 expressed in yeast microsomes. *Biochemical Journal*, *319*, 675–681.

Reyment, R. A. (1997). Multiple group principal component analysis. *Mathematical Geology*, *29*, 1–16.

Reyment, R. A., & Naidin, D. P. (1962). Biometric study of actinocamax verus s.1. from the upper cretaceous of the Russian platform. *Contributions in Geology. Acta Universitatis Stockholmiensis*, *9*, 147–206.

Rikken, F., Kiers, H. A. L., & Vos, R. (1995). Mapping the dynamics of adverse drug reactions in subsequent time periods using INDSCAL. *Scientometrics*, *33*, 367–380.

Rizzi, A. (1988). On the average matrix. In H. H. Bock (Ed.), *Classification and related methods of data analysis.* (pp. 533–540). Amsterdam: Elsevier.

Rizzi, A. (1989a). On the principal component analysis of three-way data matrices. In Y. Dodge (Ed.), *Statistical data analysis and inference.* (pp. 501–516). Amsterdam: Elsevier.

Rizzi, A. (1989b). On the synthesis of three way data matrices. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 143–154). Amsterdam: Elsevier.

Rizzi, A. (1989c). Clustering per le matrici a tre vie [Clustering for three-way matrices]. *Statistica*, *49*, 195–208.

Rizzi, A., & Vichi, M. (1992). Relations between sets of variates of a three-way data set. *Statistica Applicata*, *4*, 635–651.

Rizzi, A., & Vichi, M. (1995a). Representation, synthesis, variability and data preprocessing of a three-way data set. *Computational Statistics and Data Analysis*, *19*, 203–222.

Rizzi, A., & Vichi, M. (1995b). Three-way data set analysis. In A. Rizzi (Ed.), *Some relations between matrices and structures of multidimensional data analysis* . (pp. 93–166). Pisa: Giardini Editori e Stampatori.

Robert, P., & Escoufier, Y. (1976). A unifying tool for linear multivariate statistical methods: The RV-coefficient. *Applied Statistics*, *25*, 257–265.

Rocci, R. (1990). *Decomposizione tensoriale di un array multidimensionale di dati.* [Tensorial decomposition of a multidimensional data array] (Technical report No. E5). Rome, Italy: Department of Statistics, Probability and Applied Statistics, University of Rome "La Sapienza".

Rocci, R. (1992a). Scalar product and synthesis of s-matrices. *Statistica Applicata*, *4*, 693–699.

Rocci, R. (1992b). Three-mode factor analysis with binary core and orthonormality constraints. *Journal of the Italian Statistical Society*, *1*, 413–422.

Rocci, R., & Ten Berge, J. M. F. (1994). A simplification of a result by Zellini on the maximal rank of symmetric three-way arrays. *Psychometrika*, *59*, 377–380.

Röhmel, J., Streitberg, B., & Herrmann, W. (1983). The COMSTAT algorithm for multimodal factor analysis: An improvement of Tucker's three-mode factor analysis method. *Neuropsychobiology*, *10*, 157–163.

Rösler, F. (1975). Die Abhängigkeit des Elektroenzephalogramms von den Persönlichkeitsdimensionen E und N sensu Eysenck und unterschiedlich aktivierenden Situationen [The dependence of electroencephalograms on the personality dimensions E and N sensu Eysenck and various activating situations]. *Zeitschrift für experimentelle und angewandte Psychologie*, *22*, 630–667.

Rösler, F. (1979). Identifying interindividual judgment differences: INDSCAL or three-mode factor analysis? *Multivariate Behavioral Research*, *14*, 145–167.

Rösler, F., Jesse, J., Manzey, D., & Grau, U. (1982). Ist das LM-Gitter nur ein LM-Test? Eine dreimodale Faktorenanalyse des LM-Gitters für Kinder (Schmalt) [Is the LM-Gitter only an LM test? A trimodal factor analysis of the LM-Gitter für Kinder (Schmalt)]. *Diagnostica*, *28*, 131–145.

Ross, R. T., Lee, C.-H., Davis, C. M., Ezzeddine, B. M., Fayyad, E. A., & Leurgans, S. E. (1991). Resolution of the fluorescence spectra of plant pigment-complexes using trilinear models. *Biochimica et Biophysica Acta*, *1056*, 317–320.

Ross, R. T., & Leurgans, S. E. (1995). Component resolution using multilinear models. In K. Sauer (Ed.), *Biochemical spectroscopy.* (pp. 679–700). San Diego: Academic Press.

Rowe, H. A. H. (1979). Three-mode factor analysis: Problems of interpretation and possible solutions. *Australian Psychologist*, *14*, 222–223.

Ruch, W. (1980). *Gemeinsame Strukturen in Weizbeurteilung und Persönlichkeit. Versuch einer empirischen Integration des Gegenstandsbereiches Witzbeurteilung in die differentielle Psychologie.* Unpublished doctoral dissertation, University of Graz, Graz, Austria.

Ruch, W. (1981). Witzbeurteilung und Persönlichkeit: Ein trimodale analyse. [Joke-appreciation and personality: A three-mode analysis]. *Zeitschrift für Differentielle und Diagnostische Psychologie*, *2*, 253–273.

Rummel, R. J. (1969). Forecasting international relations: A proposed investigation of three-mode factor analysis. *Technological Forecasting*, *1*, 197–216.

Russell, D. (1982). The Causal Dimension Scale: A measure of how individuals perceive causes. *Journal of Personality and Social Psychology*, *42*, 1137–1145.

Russell, M. D., & Gouterman, M. (1988). Excitation-emission-lifetime analysis of multicomponent systems, I, II, and III. *Spectrochimica Acta*, *44A*, 857–882.

Rychlak, J. F., Flynn, E. J., & Burger, G. (1979). Affection and evaluation as logical processes of meaningfulness independent of associative frequency. *The Journal of General Psychology*, *100*, 143–157.

Sanchez, E., & Kowalski, B. R. (1988). Tensorial calibration: II. Second-order calibration. *Journal of Chemometrics*, *2*, 265–280.

Sanchez, E., & Kowalski, B. R. (1990). Tensorial resolution: A direct trilinear decomposition. *Journal of Chemometrics*, *4*, 29–45.

Sands, R., & Young, F. W. (1980). Component models for three-way data: ALSCOMP3, an alternating least squares algorithm with optimal scaling features. *Psychometrika*, *45*, 39–67.

Sanguineti, V., Laboissiere, R., & Payan, Y. (1997). A control model of human tongue movements in speech. *Biological Cybernetics*, *77*, 11–22.

Sato, M., & Sato, Y. (1994). On a multicriteria fuzzy clustering method for 3-way data. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, *2*, 127–142.

Sato, M., & Sato, Y. (1997). Generalized fuzzy clustering model for 3-way data. In *Proceedings of the International Conference on Fuzzy Logic.* (pp. 132–137). Zichron Yakov, Israel: Ministry of Science.

Sato-Ilic, M., & Sato, Y. (1998). A dynamic additive fuzzy clustering model. In A. Rizzi, M. Vichi, & H.-H. Bock (Eds.), *Advances in data science and classification.* (pp. 117–124). Berlin: Springer.

Saurina, J., Hernández-Cassou, S., Izquierdo-Ridorsa, A., & Tauler, R. (2000). pH-Gradient spectrophotometric data files from flow-injection and continuous flow systems for two- and three-way data analysis. *Chemometrics and Intelligent Laboratory Systems*, *50*, 263–271.

Saurina, J., Hernández-Cassou, S., & Tauler, R. (1995). Multivariate curve resolution applied to continuous-flow spectrophotometric titrations: reaction between amino-acids and 1,2-naphthoquinone-4-sulfonic acid. *Analytical Chemistry*, *67*, 3722–3726.

Saurina, J., Hernández-Cassou, S., & Tauler, R. (1997). Multivariate curve resolution and trilinear decomposition methods in the analysis of stopped-flow kinetic data for binary amino acid mixtures. *Analytical Chemistry*, *69*, 2329–2336.

Saurina, J., Hernández-Cassou, S., Tauler, R., & Izquierdo-Ridorsa, A. (1999). Continuous-flow and flow injection pH gradients for spectrophotometric determinations of mixtures of nucleic acid components. *Analytical Chemistry*, *71*, 2215–2220.

Schiffman, S. S., Reynolds, M. L., & Young, F. W. (1981). *Introduction to multidimensional scaling.* New York: Academic Press.

Schneider, J. F., & Krolak-Schwerdt, S. (1994). Dreimodale Faktorenanalyse von Wertkonzepten: Ein Methodenvorschlag für interkulturelle Vergleiche. [Three-mode factor analysis of value concepts: Proposal of a method for intercultural comparison]. *Gruppendynamik*, *25*, 117–131.

Schönemann, P. H. (1972). An algebraic solution for a class of subjective metrics models. *Psychometrika*, *37*, 441–451.

Schott, J. R. (1991). Some tests for common principal component subspaces in several groups. *Biometrika*, *78*, 771–777.

Schulz, U. (1972). Ein euklidisches Modell der Multidimensionalen Skalierung unter Berücksichtigung individueller Differenzen [A Euclidean model for individual differences multidimensional scaling]. In *Bericht über den 28. Kongreß der Deutschen Gesellschaft für Psychologie, Band 2: Psychologische methodik und mathematische psychologie.* (pp. 75–89). Place unknown.

Schulz, U. (1975). Zu einem Dekompositionsmodell der multidimensionalen Skalierung mit individueller Gewichtung der Dimensionen [On a decomposition model for multidimensional scaling with individual weighting of dimensions]. *Psychologische Beiträge*, *17*, 167–187.

Schulz, U., & Pittner, P. M. (1978). Zur multidimensionale Skalierung individueller Differenzen: Zwei Modelle mit Rechenalgorithmen [On individual differences multidimensional scaling: Two models with algorithms]. *Psychologische Beiträge*, *20*, 294–315.

See, K., & Smith, E. P. (1996). A graphical tool for three-factor experiments with one observation per cell. *Communications in Statistics. Part B, Simulation and Computation*, *25*, 709–732.

See, K., & Smith, E. P. (1998). Testing interaction in three-way ANOVA tables with a single observation per cell. *Communications in Statistics. Part A, Theory and Methods*, *27*, 839–866.

Sena, M. M., Fernandes, J. C. B., Rover, L., Poppi, R. J., & Kubota, L. T. (2000). Application of two- and three-way chemometric methods in the study of acetylsalicylic acid and ascorbic acid mixtures using ultraviolet spectrophotometry. *Analytica Chimica Acta*, *409*, 159–170.

Shaywitz, B. A., Shaywitz, S. E., Pugh, K. R., Constable, R., Skudlarski, P., Fulbright, R. K., Bronen, R. A., Fletcher, J. M., Shankweiler, D. P., Katz, L., & Gore, J. C. (1995). Sex-differences in the functional-organization of the brain for language. *Nature*, *373*, 607–609.

Shepard, R. N., & Arabie, P. (1979). Additive clustering: Representation of similarities as combinations of discrete overlapping properties. *Psychological Review*, *86*, 87–123.

Shikiar, R. (1974a). An empirical comparison of two individual differences multidimensional scaling models. *Educational and Psychological Measurement*, *34*, 823–828.

Shikiar, R. (1974b). The perception of politicians and political issues: a multidimensional scaling approach. *Multivariate Behavioral Research*, *9*, 461–477.

Siciliano, R. (1992). Reduced-rank models for dependence analysis of contingency tables. *Statistica Applicata*, *4*, 481–501.

Siciliano, R., & Mooijaart, A. (1997). Three-factor association models for three-way contingency tables. *Computational Statistics and Data Analysis*, *24*, 337–356.

Sidiropoulos, N. D., & Bro, R. (1999). Mathematical programming algorithms for regression-based nonlinear filtering in N-dimensional real space. *IEEE Transactions on Signal Processing*, *47*, 771–782.

Sidiropoulos, N. D., & Bro, R. (2000). On the uniqueness of multilinear decomposition of N-way arrays. *Journal of Chemometrics*, *14*, 229–239.

Sidiropoulos, N. D., Bro, R., & Giannakis, G. B. (2000). Parallel factor analysis in sensor array processing. *IEEE Transactions on Signal Processing*, *48*, 2377–2388.

Sidiropoulos, N. D., Giannakis, G. B., & Bro, R. (2000). Blind PARAFAC receivers for DS-CDMA systems. *IEEE Transactions on Signal Processing*, *48*, 810–823.

Sidiropoulos, N. D., & Liu, X. (2001). Identifiability results for blind beamforming in incoherent multipath with small delay spread. *IEEE Transactions on Signal Processing*, *49*, 228–236.

Sjöberg, L. (1977). Choice frequency and similarity. *Scandinavian Journal of Psychology*, *18*, 103–115.

Sjöberg, L. (1984). Interests, effort, achievement and vocational preference. *British Journal of Educational Psychology*, *54*, 189–205.

Skolnick, A. (1981). Married lives: Longitudinal perspectives on marriage. In D. H. Eichorn, J. A. Clausen, N. Haan, M. P. Honzik, & P. H. Mussen. (Eds.), *Present and past in middle life.* (pp. 269–298). New York: Academic Press.

Smilde, A. K. (1990). *Multivariate calibration of reversed-phase chromatographic systems.* Unpublished doctoral dissertation, University of Groningen, Groningen, The Netherlands.

Smilde, A. K. (1992). Three-way analyses: Problems and prospects. *Chemometrics and Intelligent Laboratory Systems*, *15*, 143–158.

Smilde, A. K. (1997). Comments on multilinear PLS. *Journal of Chemometrics*, *11*, 367–377.

Smilde, A. K., & Doornbos, D. A. (1991). Three-way methods for the calibration of chromatographic systems: Comparing PARAFAC and three-way PLS. *Journal of Chemometrics*, *5*, 345–360.

Smilde, A. K., & Doornbos, D. A. (1992). Simple validatory tools for judging the predictive performance of PARAFAC and three-way PLS. *Journal of Chemometrics*, *6*, 11–28.

Smilde, A. K., & Kiers, H. A. L. (1999). Multiway covariates regression models. *Journal of Chemometrics*, *13*, 31–48.

Smilde, A. K., Tauler, R., Henshaw, J. M., Burgess, L. W., & Kowalski, B. R. (1994). Multicomponent determination of chlorinated hydrocarbons using a reaction-based chemical sensor. 3. Medium-rank second-order calibration with restricted Tucker models. *Analytical Chemistry*, *66*, 3345–3351.

Smilde, A. K., Tauler, R., Saurina, J., & Bro, R. (1999). Calibration methods for complex second-order data. *Analytica Chimica Acta*, *398*, 237–251.

Smilde, A. K., Van der Graaf, P. H., Doornbos, D. A., Steerneman, T., & Sleurink, A. (1990). Multivariate calibration of reversed-phase chromatographic systems. Some designs based on three-way data analysis. *Analytica Chimica Acta*, *235*, 41–51.

Smilde, A. K., Wang, Y., & Kowalski, B. R. (1994). Theory of medium-rank second-order calibration with restricted-Tucker models. *Journal of Chemometrics*, *8*, 21–36.

Smilde, A. K., Westerhuis, J. A., & Boqué, R. (2000). Multiway multiblock component and coveriates regression models. *Journal of Chemometrics*, *14*, 301–331.

Snyder, F. W. (1968). *A unique variance model for three-mode factor analysis.* (Research Report). Urbana IL: Department of Psychology, University of Illinois.

Snyder, F. W., & Tucker, L. R. (1970, Month unknown). *Interpretation of the core matrix in three-mode factor analysis.* Paper presented at the Psychometric Society Meeting., Place unknown.

Snyder, F. W., & Wiggins, N. (1970). Affective meaning systems: a multivariate approach. *Multivariate Behavioral Research*, *5*, 453–468.

Snyder Jr, C. W. (1976). Multivariate analysis of intrinsic individual differences in disjunctive conceptual behavior. *Multivariate Behavioral Research*, *11*, 195–216.

Snyder Jr, C. W. (1982). Spectrum of affect for balance beam exercises: PARAFAC three-mode analysis. In M. L. Howell & B. D. Wilson (Eds.), *Proceedings of the 7th Commonwealth and International Conference on Sport, Physical Education, Recreation, and Dance Vol 7¿.* (pp. 61–65). Place unknown: Publisher unknown.

Snyder Jr, C. W. (1988). Multimode factor analysis. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate experimental psychology.* (2nd edition ed., pp. 289–316). New York: Plenum Press.

Snyder Jr, C. W., Bridgman, R. P., & Law, H. G. (1981). Three-mode factor analytic reference curves for concept identification. *Personality and Individual Differences*, *2*, 265–272.

Snyder Jr, C. W., & Law, H. G. (1979). Three-mode common factor analysis: Procedure and computer programs. *Multivariate Behavioral Research*, *14*, 435–441.

Snyder Jr, C. W., & Law, H. G. (1981). Three-mode models for road research. In J. M. Morris (Ed.), *Proceedings of a Seminar on Measuring Social Behaviour in Road Research.* (pp. 39–48). Vermont South ¡!–;–¿ Victoria ¡!–;–). Australia: Australian Road Research Board.

Snyder Jr, C. W., Law, H. G., & Hattie, J. A. (1984). Overview of multimode analytic methods. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 2–35). New York: Praeger.

Snyder Jr, C. W., Law, H. G., & Pamment, P. R. (1979). Calculation of Tucker's three-mode common factor analysis. *Behavior Research Methods and Instrumentation*, *11*, 609–611.

Snyder Jr, C. W., Murdoch, V. J., Pamment, P. R., Law, H. G., & Payne, P. V. (1985). Environmental evaluations of a rural construction township: The women's perspective. *Journal of Rural Community Psychology*, *6*, 27–47.

Snyder Jr, C. W., Walsh, W. D., & Pamment, P. R. (1983). Three-mode PARAFAC factor analysis in applied research. *Journal of Applied Psychology*, *68*, 572–583.

Sogon, S., & Doi, K. (1990). Three-mode factor analysis of emblematic gesture and body manipulation viewed from the dorsal perspective (in Japanese). *The Japanese Journal of Psychology*, *60*, 356–362.

Soli, S. D., Arabie, P., & Carroll, J. D. (1986). Discrete representation of perceptual structure underlying consonant confusions. *Journal of the Acoustical Society of America*, *79*, 826–837.

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Sorenson, L. (1986, Month unknown). *Factor analysis of open-field behavior in rats: Using the three-way PARAFAC model for longitudinal data.* Paper presented at the Annual Meeting of the Canadian Psychological Association., Toronto.

SOUPAC. (1973). *Three-mode factor analysis.* (Program Description). Urbana IL.: Computing Services Offices, University of Illinois.

Spanjer, M. C. (1984). *Substituent interaction effects and mathematical-statistical description of retention in liquid chromatography.* Unpublished doctoral dissertation, University of Utrecht, Utrecht, The Netherlands.

Spanjer, M. C., De Ligny, C. L., Van Houwelingen, H. C., & Weesie, J. M. (1985). Simultaneous description of the influence of solvent, reaction type, and substituent on equilibrium constants by means of three-mode factor analysis. *Journal of the Chemical Society, Perkin Transactions II*, *??*, 1401–1411.

Ståhle, L. (1989). Aspects of the analysis of three-way data. *Chemometrics and Intelligent Laboratory Systems*, *7*, 95–100.

Stankov, L., & Chen, K. (1988). Can we boost fluid and crystallised intelligence? A structural modelling approach. *Australian Journal of Psychology*, *40*, 363–376.

Stewart, T. R. (1971). The relation between three mode factor analysis and multidimensional scaling of personality trait profiles. *Dissertation Abstracts International*, *32*, 1197.

Stewart, T. R. (1974). Generality of multidimensional representations. *Multivariate Behavioral Research*, *9*, 507–519.

Stone, M., & Lundberg, A. (1996). Three-dimensional tongue surface shapes of English consonants and vowels. *Journal of the Acoustical Society of America*, *99*, 3728–3737.

Stone, M., Shawker, T. H., Talbot, T. L., & Rich, A. H. (1988). Cross-sectional tongue shape during the production of vowels. *Journal of the Acoustical Society of America*, *83*, 1586–1596.

Stoop, I. (1980). *Sekundaire analyse van de 'van jaar tot jaar' data met behulp van niet-lineaire multivariate technieken: Verschillen in de schoolloopbaan van meisjes en jongensχ.* [Secondary analysis of the 'year-by-year' data using non-linear multivariate techniques: Differences in the school career of girls and boys] (Research Bulletin No. RB 001-'80). Leiden, The Netherlands: Department of Datatheory, Leiden University.

Strasburger, E. L. (1980). A multidimensional model of inferential judgment. *Dissertation Abstracts International*, *41*, 4645.

Swaminathan, H. (1984). Factor analysis of longitudinal data. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 308–332). New York: Praeger.

T., M. (1996). Three-mode factor models and the concept of individual differences (in Japanese with English abstract). *Japanese Psychological Review*, *39*, 408–428.

Takane, Y. (1984). The weighted additive model. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 470–517). New York: Praeger.

Takane, Y., Young, F. W., & De Leeuw, J. (1977). Nonmetric individual differences multidimensional scaling: An alternating least squares method with optimal scaling features. *Psychometrika*, *42*, 7–67.

Takeuchi, H., Kroonenberg, P. M., Taya, H., & Miyano, H. (1986). An analysis of Japanese language on thermal sensation. *Mathematical Linguistics*, *15*, 201–209.

Tan, Y. X., Jiang, J. H., Wu, H. L., Cui, H., & Yu, R. Q. (2000). Resolution of kinetic system of simultaneous degradations of chlorophyll *a* and *b* by PARAFAC. *Analytica Chimica Acta*, *412*, 195–202.

Tanaka, K., & Shinotake, T. (1993). Analysis of clinical cases adopting three-mode factor analysis (in Japanese). *The Japanese Journal of Psychology*, *64*, 284–288.

Tatsunami, K., Kuwabara, R., Yago, N., Mimaya, J., Yamada, K., Sato, M., & Sato, Y. (1998). Application of three-way data clustering to analysis of lymphocyte subset numbers in Japanese hemophiliacs infected with HIV-1. In A. Rizzi, M. Vichi, & H.-H. Bock (Eds.), *Advances in data science and classification.* (pp. 627–632). Berlin: Springer.

Tauler, R. (1995). Multivariate curve resolution applied to second order data. *Chemometrics and Intelligent Laboratory Systems*, *30*, 133–146.

Tauler, R. (2001). Calculation of maximum and minimum band boundaries of feasible solutions for species profiles obtained by multivariate curve resolution. *Journal of Chemometrics*, *15*, 627–646.

Tauler, R., & Barceló, D. (1993). Multivariate curve resolution applied to liquid chromatography-diode array detection. *TrAC: Trends in Analytical Chemistry*, *12*, 319–327.

Tauler, R., & Casassas, E. (1992). Application of factor-analysis to speciation in multiequilibria systems. *Analusis*, *20*, 255–268.

Tauler, R., Kowalski, B., & Fleming, S. (1993). Multivariate curve resolution applied to spectral data from multiple runs of an industrial process. *Analytical Chemistry*, *65*, 2040–2047.

Tauler, R., Marqués, I., & Casassas, E. (1998). Multivariate curve resolution applied to three-way trilinear data: Study of a spectrofluorimetric acid-base titration of salicylic acid at three excitation wavelengths. *Journal of Chemometrics*, *12*, 55–76.

Tauler, R., Smilde, A., & Kowalski, B. (1995). Selectivity, local rank, three-way data analysis and ambiguity in multivariate curve resolution. *Journal of Chemometrics*, *9*, 31–58.

Tauler, R., Smilde, A. K., Henshaw, J. M., Burgess, L. W., & Kowalski, B. R. (1994). Multicomponent determination of chlorinated hydrocarbons using a reaction-based chemical sensor. 2. Chemical speciation using multivariate curve resolution. *Analytical Chemistry*, *66*, 3337–3344.

Ten Berge, J. M. F. (1972). Difficulty factors, distribution effects, and the least squares simplex data matrix solution. *Educational and Psychological Measurement*, *32*, 911–920.

Ten Berge, J. M. F. (1977). Orthogonal Procrustes rotation for two or more matrices. *Psychometrika*, *42*, 267–276.

Ten Berge, J. M. F. (1983). A generalization of Kristof's theorem on the trace of certain matrix products. *Psychometrika*, *48*, 519–523.

Ten Berge, J. M. F. (1985). Review of "Three-mode principal component analysis" (in Dutch). *Kwantitatieve Methoden*, *17*, 145–147.

Ten Berge, J. M. F. (1986a). Rotatie naar perfecte congruentie en de multipele groep methode. *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, *41*, 218–225.

Ten Berge, J. M. F. (1986b). Rotation to perfect congruence and the cross-validation of component weights across populations. *Multivariate Behavioral Research*, *21*, 41–64.

Ten Berge, J. M. F. (1986c). Some relationships between descriptive comparisons of components from different studies. *Multivariate Behavioral Research*, *21*, 29–40.

Ten Berge, J. M. F. (1989). Convergence of PARAFAC preprocessing procedures and the Deming-Stephan method of iterative proportional fitting. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 53–63). Amsterdam: Elsevier.

Ten Berge, J. M. F. (1991a). A general solution for a class of weakly constrained linear regression problems. *Psychometrika*, *56*, 601–609.

Ten Berge, J. M. F. (1991b). Kruskal's polynomial for $2\times2\times2$ arrays and a generalization to $2\times n\times n$ arrays. *Psychometrika*, *56*, 631–636.

Ten Berge, J. M. F., Bekker, P. A., & Kiers, H. A. L. (1994). Some clarifications of the TUCKALS2 algorithm applied to the IDIOSCAL problem. *Psychometrika*, *59*, 193–201.

Ten Berge, J. M. F., De Leeuw, J., & Kroonenberg, P. M. (1987). Some additional results on principal components analysis of three-mode data by means of alternating least squares algorithms. *Psychometrika*, *52*, 183–191.

Ten Berge, J. M. F., & Kiers, H. A. L. (1989a). Convergence properties of an iterative procedure of ipsatizing and standardizing a data matrix, with applications to PARAFAC/CANDECOMP preprocessing. *Psychometrika*, *54*, 231–235.

Ten Berge, J. M. F., & Kiers, H. A. L. (1989b). Fitting the off-diagonal dedicom model in the least-squares sense by a generalization of the Harman and Jones minres procedure of factor analysis. *Psychometrika*, *54*, 333–337.

Ten Berge, J. M. F., & Kiers, H. A. L. (1990). Simultane componenten-analyse voor twee of meer groepen personen [Simultaneous components analysis for two or more groups of people]. *Nederlands Tijdschrift voor de Psychologie*, *45*, 221–226.

Ten Berge, J. M. F., & Kiers, H. A. L. (1991a). A numerical approach to the approximate and the exact minimum rank of a covariance matrix. *Psychometrika*, *56*, 309–315.

Ten Berge, J. M. F., & Kiers, H. A. L. (1991b). Some clarifications of the CANDECOMP algorithm applied to INDSCAL. *Psychometrika*, *56*, 317–326.

Ten Berge, J. M. F., & Kiers, H. A. L. (1996a). Optimality criteria for principal component analysis and generalizations. *British Journal of Mathematical and Statistical Psychology*, *49*, 335–345.

Ten Berge, J. M. F., & Kiers, H. A. L. (1996b). Some uniqueness results for PARAFAC2. *Psychometrika*, *61*, 123–132.

Ten Berge, J. M. F., & Kiers, H. A. L. (1999). Simplicity of core arrays in three-way principal component analysis and the typical rank of $p \times q \times 2$ arrays. *Linear Algebra and its Applications*, *294*, 169–179.

Ten Berge, J. M. F., Kiers, H. A. L., & Commandeur, J. J. F. (1993). Orthogonal Procrustes rotation for matrices with missing values. *British Journal of Mathematical and Statistical Psychology*, *46*, 119–134.

Ten Berge, J. M. F., Kiers, H. A. L., & De Leeuw, J. (1988). Explicit CANDECOMP/PARAFAC solutions for a contrived $2\times2\times2$ array of rank three. *Psychometrika*, *53*, 579–583.

Ten Berge, J. M. F., Kiers, H. A. L., & Krijnen, W. P. (1993). Computational solutions for the problem of negative saliences and nonsymmetry in INDSCAL. *Journal of Classification*, *10*, 115–124.

Ten Berge, J. M. F., Kiers, H. A. L., Murakami, T., & Van der Heijden, R. (2000). Transforming three-way arrays to multiple orthonormality. *Journal of Chemometrics*, *14*, 275–284.

Ten Berge, J. M. F., Kiers, H. A. L., & Van der Stel, V. (1992). Simultaneous components analysis. *Statistica Applicata*, *4*, 377–392.

Ten Berge, J. M. F., & Knol, D. L. (1984). Orthogonal rotations to maximal agreement for two or more matrices of different column orders. *Psychometrika*, *49*, 49–55.

Ten Berge, J. M. F., Knol, D. L., & Kiers, H. A. L. (1988). A treatment of the orthomax rotation family in terms of diagonalization, and a re-examination of a singular value approach to varimax rotation. *Computational Statistics Quarterly*, *3*, 207–217.

Terbeek, D., & Harshman, R. (1971). Cross-language differences in the perception of natural vowel sounds. *UCLA Working Papers in Phonetics*, *19*, 26–38.

Thomas, K., & Otway, H. J. (1980). Public perceptions of energy system risks: Some policy implications. In T. O'Riordan & K. Turner (Eds.), *Progress in resource management and environmental planning, Vol. 2.* (pp. 109–131). New York: Wiley.

Thomas, P. R., & Bain, J. D. (1982). Consistency in learning strategies. *Higher Education*, *11*, 249–259.

Thomas, P. R., & Bain, J. D. (1984). Contextual dependence of learning approaches: The effects of assessments. *Human Learning*, *3*, 227–240.

Timmerman, M. E. (2001). *Component analysis of multisubject multivariate longitudinal data.* Unpublished doctoral dissertation, Department of Psychology, University of Groningen, Groningen, The Netherlands.

Timmerman, M. E., & Kiers, H. A. L. (2000). Three-mode principal components analysis: Choosing the numbers of components and sensitivity to local optima. *British Journal of Mathematical and Statistical Psychology*, *53*, 1–16.

Tisak, J., & Meredith, W. (1990). Longitudinal factor analysis. In A. von Eye (Ed.), *Statistical methods in longitudinal research. Vol. 1.* (pp. 125–149). New York: Academic Press.

Triandis, H. C. (Ed.). (1972). *The analysis of subjective culture.* New York: Wiley-Interscience.

Triandis, H. C. (1977). Subjective culture and interpersonal relations across cultures. *Annals of the New York Academy of Sciences*, *285*, 418–434.

Triandis, H. C., Feldman, J. M., Weldon, D. E., & Harvey, W. M. (1975). Ecosystem distrust and the hard-to-employ. *Journal of Applied Psychology*, *60*, 44–56.

Triandis, H. C., Malpass, R. S., & Feldman, J. (1976). Method and a sample of results. In H. C. Triandis (Ed.), *Variations in black and white perceptions of the social environment.* (pp. 81–95). Urbana IL: University of Illinois Press.

Triandis, H. C., Tucker, L. R., Koo, P., & Stewart, T. (1967). *Three-mode factor analysis of the behavioral component of interpersonal attitudes.* (Technical report No. 50). Urbana IL: Department of Psychology, University of Illinois.

Trick, L., & Katz, A. N. (1986). The domain interaction approach to metaphor processing: Relating individual differences and metaphor characteristics. *Metaphor and Symbolic Activity*, *1*, 185–213.

Tu, X. M. (1995). Nonparametric-estimation of survival distributions with censored initiating time, and censored and truncated terminating time: Application to transfusion data for acquired-immune-deficiency-syndrome. *Applied Statistics*, *44*, 3–16.

Tu, X. M., & Burdick, D. (1992). Resolution of trilinear mixtures: Application in spectroscopy. *Statistica Sinica*, *2*, 577–593.

Tu, X. M., Burdick, D. S., Millican, D. W., & Mcgown, L. B. (1989). Canonical correlation technique for rank estimation of excitation-emission matrices. *Analytical Chemistry*, *61*, 2219–2224.

Tu, X. M., Meng, X. L., & Pagano, M. (1994). On the use of conditional maximization in chemometrics. *Journal of Chemometrics*, *8*, 365–370.

Tucker, L. R. (1963). Implications of factor analysis of three-way matrices for measurement of change. In C. W. Harris (Ed.), *Problems in measuring change.* (pp. 122–137). Madison WI: University of Wisconsin Press.

Tucker, L. R. (1964). The extension of factor analysis to three-dimensional matrices. In H. Gulliksen & N. Frederiksen (Eds.), *Contributions to mathematical psychology.* (pp. 110–127). New York: Holt, Rinehart and Winston.

Tucker, L. R. (1966a). Experiments in multimode factor analysis. In A. Anastasi (Ed.), *Testing problems in perspective.* (pp. 369–379). Washington DC: American Council on Education.

Tucker, L. R. (1966b). Learning theory and multivariate experiment. Illustration by determination of generalized learning curves. In R. B. Cattell (Ed.), *Handbook of multivariate experimental psychology.* (pp. 476–501). Chicago, IL: Rand McNally.

Tucker, L. R. (1966c). Some mathematical notes on three-mode factor analysis. *Psychometrika*, *31*, 279–311.

Tucker, L. R. (1967). Three-mode factor analysis of Parker-Fleishman complex tracking behavior data. *Multivariate Behavioral Research*, *2*, 139–152.

Tucker, L. R. (1969, 18 April). *Some relations between multi-mode factor analysis and linear models for individual differences in choice, judgmental and performance data.* Paper presented at the Psychometric Society Symposium: Multi-mode factor analysis and models for individual differences in psychological phenomena., Place unknown.

Tucker, L. R. (1972a). Relations between multidimensional scaling and three-mode factor analysis. *Psychometrika*, *37*, 3–27.

Tucker, L. R. (1972b, Date unknown). *Use of three-mode factor analysis in MDS.* Paper presented at, Workshop on Multidimensional Scaling, Urbana IL.

Tucker, L. R. (1975, Date unknown). *Three-mode factor analysis applied to multidimensional scaling.* Paper presented at US-Japan Conference on Multidimensional Scaling., LaJolla CA.

Tucker, L. R. (1991, Date unknown). *Remarks on the study of the variety of individuals.* Saul B. Sells Memorial Lecture presented at Annual Meeting of the Society of Multivariate Experimental Psychology., Albuquerque NM.

Tucker, L. R. (1992). Remarks on the study of the variety of individuals. *Multivariate Behavioral Research*, *27*, 635–647.

Tucker, L. R., & Messick, S. (1963). An individual differences model for multidimensional scaling. *Psychometrika*, *28*, 333–367.

Turecek, F., & Gu, M. (1995). Differentiation of olefin isomers by survivor-ion mass-spectrometry. *Journal of mass spectrometry*, *30*, 144–152.

Tzeng, O. C., & Everett, A. V. (1985). A cross-cultural perspective of self-related conceptions in adolescence. *International Journal of Psychology*, *20*, 329–348.

Tzeng, O. C. S. (1972). Differentiation of affective and denotative meaning systems in personality ratings via three-mode factor analysis. *Dissertation Abstracts International*, *34*, 864–865.

Tzeng, O. C. S. (1975). Differentiation of affective and denotative meaning systems and their influence in personality ratings. *Journal of Personality and Social Psychology*, *32*, 978–988.

Tzeng, O. C. S. (1977a). Differentiation of affective and denotative semantic subspaces. *Annals of the New York Academy of Sciences*, *285*, 476–500.

Tzeng, O. C. S. (1977b). Individual differences in self-conception: multivariate approach. *Perceptual and Motor Skills*, *45*, 1119–1124.

Tzeng, O. C. S., & Landis, D. (1978). Three-mode multidimensional scaling with points of view solutions. *Multivariate Behavioral Research*, *13*, 181–213.

Tzeng, O. C. S., & Osgood, C. E. (1976). Validity tests for componential analyses of conceptual domains: A cross-cultural study in methodology. *Behavioral Science*, *21*, 69–85.

Ullrich, J. R., & Wilson, R. E. (1993). A note on the exact number of two- and three-way tables satisfying conjoint measurement and additivity axioms. *Journal of Mathematical Psychology*, *37*, 624–628.

Van de Geer, J. P. (1974). *Groei en ontwikkeling van de ziekenhuisorganisaties in Nederland* . [Growth and development of hospital organisations in the Netherlands] (Interim rapport). Leiden, The Netherlands: Institute of Sociology, Leiden University.

Van der Burg, E., De Leeuw, J., & Dijksterhuis, G. (1994). OVERALS: Nonlinear canonical correlation with k sets of variables. *Computational Statistics and Data Analysis*, *18*, 141–163.

Van der Burg, E., De Leeuw, J., & Verdegaal, R. (1988). Homogeneity analysis with k sets of variables: An alternating least squares method with optimal scaling features. *Psychometrika*, *53*, 177–197.

Van der Burg, E., & Dijksterhuis, G. (1989). Nonlinear canonical correlation analysis of multiway data. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 245–255). Amsterdam: Elsevier.

Van der Heijden, P. G. M., De Falguerolles, A., & De Leeuw, J. (1989). A combined approach to contingency table analysis using correspondence-analysis and log-linear analysis (with discussion). *Applied Statistics*, *38*, 249–292.

Van der Kloot, W. A., & Kroonenberg, P. M. (1982). Group and individual implicit theories of personality: An application of three-mode principal component analysis. *Multivariate Behavioral Research*, *17*, 471–491.

Van der Kloot, W. A., & Kroonenberg, P. M. (1985). External analysis with three-mode principal component models. *Psychometrika*, *50*, 479–494.

Van der Kloot, W. A., Kroonenberg, P. M., & Bakker, D. (1985). Implicit theories of personality: Further evidence of extreme response style. *Multivariate Behavioral Research*, *20*, 369–387.

Van Eeuwijk, F. A. (1992). Multiplicative models for genotype-environment interaction in plant breeding. *Statistica Applicata*, *4*, 393–406.

Van Eeuwijk, F. A., & Kroonenberg, P. M. (1995). The simultaneous analysis of genotype by environment interaction for a number [of] traits using three-way multiplicative model [of]. *Biuletyn Oceny Odmian/Cultivar Testing Bulletin*, *26/27*, 83–96.

Van Eeuwijk, F. A., & Kroonenberg, P. M. (1998). Multiplicative models for interaction in three-way ANOVA, with applications to plant breeding. *Biometrics, 54*, 1315–1333.

Vandeginste, B. G. M. (1987). Chemometrics - General introduction and historical development. *Topics in Current Chemistry, 141*, 1–42.

Vansteelandt, K., & Van Mechelen, I. (1998). Individual differences in situation-behaviour profiles: A triple typology model. *Journal of Personality and Social Psychology, 75*, 751–765.

Vavra, T. G. (1973). A three-mode factor analytic investigation into the effectiveness of advertising. *Dissertation Abstracts International, 34*, 7802–7803.

Veldscholte, C. M. (1994). *A three-mode principal component analysis of perceptions of economic activities: TUCKALS3 also compared with two-mode PCA.* (Master's Thesis). Leiden, The Netherlands.: Department of Psychometrics, Leiden University.

Veldscholte, C. M., Antonides, G., & Kroonenberg, P. M. (1995). *Converging perceptions of economic activities between East and West: A three-mode principal component analysis.* (Research Report No. R9519/A). Rotterdam, The Netherlands: Rotterdam Institute for Business Economic Studies, Erasmus University.

Verhees, J. (1989). *Econometric analysis of multidimensional models.* Unpublished doctoral dissertation, Department of Econometrics, University of Groningen, Groningen, The Netherlands.

Verhees, J., & Wansbeek, T. J. (1990). A multimode direct product model for covariance structure analysis. *British Journal of Mathematical and Statistical Psychology, 43*, 231–240.

Vichi, M. (1988). Two-way data matrix representative syntheses of a three-way data matrix. *Statistica, 48*, 91–106.

Vichi, M. (1989). La connessione e la correlazione tra due matrici dei dati componenti una matrice a tre indici. [Association and regression between data matrices in a three-way matrix]. *Statistica, 49*, 225–243.

Vichi, M. (1990). L'analisi in matrici fattoriali di una matrice a tre indici. [Factorial matrix analysis for a three-way matrix]. *Statistica, 50*, 525–546.

Vichi, M. (1991). Le techniche che derivano dall'analisi in matrici fattoriali di una matrice a tre indici. [Factorial matrices derived from a three-way matrix]. *Statistica, 51*, 53–77.

Vichi, M. (1993). Variability of a three-way data set. In *Bulletin of the ISI. Contributed Papers 49th session, Vol. 2.* (pp. 529–530). Rome.

Vivien, M., & Sabatier, R. (2001a). Nouvelle méthode de régression pour les multi-tableaux: ACIMOG-PLS. (New methods of regression for multi-tables: ACIMOG-PLS). In *Actes des XXXIIIèmes Journées de Statistique.* (pp. 707–710). Nantes.

Vivien, M., & Sabatier, R. (2001b). Une extension multi-tableaux de la régression PLS. *Revue Statistique Appliquée, 49*, 31–54.

Wainer, H., Gruvaeus, G., & Blair, M. (1974). TREBIG: A 360/75 FORTRAN program for three-mode factor analysis designed for big data sets. *Behavioral Research Methods and Instrumentation, 6*, 53–54.

Wainer, H., Gruvaeus, G., & Zill II, N. (1973a). Senatorial decision making: I. The determination of structure. *Behavioral Science, 18*, 7–19.

Wainer, H., Zill II, N., & Gruvaeus, G. (1973b). Senatorial decision making: II. Prediction. *Behavioral Science, 18*, 20–26.

Walsh, J. A. (1964). An IBM 709 program for factor analyzing three-mode matrices. *Educational and Psychological Measurement, 24*, 669–673.

Walter, J. (1976). *Komplexe taaksituaties en hartsnelheidsvariabiliteit in de psychiatrie.* [Complex task situations and variability of heart-rate in psychiatry] (Research Report). Noordwijkerhout, The Netherlands: Foundation Centre St.-Bavo.

Wang, J. H., & Hopke, P. K. (2001). Equation-oriented system: an efficient programming approach to solve multilinear and polynomial equations by the conjugate gradient algorithm. *Chemometrics and Intelligent Laboratory Systems, 55*, 13–22.

Wang, Y. D., Borgen, O. S., & Kowalski, B. R. (1993). Comments on the residual bilineariza-tion method. *Journal of Chemometrics*, *7*, 439–445.

Wang, Y. D., Borgen, O. S., Kowalski, B. R., Gu, M., & Turecek, F. (1993). Advances in second-order calibration. *Journal of Chemometrics*, *7*, 117–130.

Wang, Y. D., & Kowalski, B. R. (1993). Standardization of second-order instruments. *Analytical Chemistry*, *65*, 1174–1180.

Wansbeek, T., & Buyze, J. (1981). *Multi-dimensional matrices and multiplicative interdependence in regression analysis.* (Research Report BPA No. 13593-81-M1). Voorburg, The Netherlands: Department for Statistical Methods, Central Bureau of Statistics.

Wansbeek, T., & Verhees, J. (1989). Models for multidimensional matrices in econometrics and psychometrics. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 543–552). Amsterdam: Elsevier.

Wansbeek, T., & Verhees, J. (1990). The algebra of multimode factor analysis. *Linear Algebra and its Applications*, *127*, 631–639.

Warmerdam, M. (1990). *Affectieve reakties op reclame.* [Affective reactions to advertising] (Master's Thesis). Leiden, The Netherlands: Department of Psychology, Leiden University.

Watkins, D., & Hattie, J. (1985). A longitudinal study of the approaches to learning of Australian tertiary students. *Human Learning*, *4*, 127–141.

Weesie, J., & Van Houwelingen, H. (1983). *GEPCAM users' manual: Generalized principal components analysis with missing values.* (Technical report). Utrecht, The Netherlands: Institute of Mathematical Statistics, University of Utrecht.

Wei, W. Z., Zhu, W. H., & Yao, S. Z. (1992). Application of ridge trace analysis in direct spectrophotometric calibration. *Talanta*, *39*, 1629–1636.

Wein, B., Drobnitzky, M., & Klaiman, S. (1990). MRI and sonography during phonation. *Fortschritte auf dem Gebiete der Röntgenstrahlen und der Neuen Bildgebenden Verfahren*, *2*, 2.

Weinberg, S. L., & Daws, J. T. (1994, 23-26 June). *Recovering true structure of three-way two-mode proximity data: A Monte Carlo study.* Paper presented at the Meeting of the Psychometric Society., Urbana/Champaign IL.

Westerhuis, J. A., Kourti, T., & MacGregor, J. F. (1999). Comparing alternative approaches for multivariate statistical analysis of batch process data. *Journal of Chemometrics*, *13*, 397–413.

Whitman, B. Y. (1980). The relationship of client personality variables and worker skill variables in the production of client behavioral self-disclosure in the therapeutic interview. *Dissertation Abstracts International*, *41*, 1779.

Wicker, F. W. (1966). A scaling study of synesthetic thinking. *Dissertation Abstracts International*, *27*, 2173.

Wiggins, N., & Fishbein, M. (1969). Dimensions of semantic space: A problem of individual differences. In J. R. Snider & C. E. Osgood (Eds.), *The semantic differential technique: A book of readings.* (pp. 183–193). Chicago: Aldine Press.

Wiggins, N. H., & Blackburn, M. C. (1976). Implicit theories of personality: An individual differences approach. *Multivariate Behavioral Research*, *11*, 267–285.

Williams, W. T., & Stephenson, W. (1973). The analysis of three-dimensional data (sites × species × times) in marine ecology. *Journal of Experimental Marine Biological Ecology*, *11*, 207–227.

Wilson, B. E., Lindberg, W., & Kowalski, B. R. (1989). Multicomponent quantitative-analysis using 2nd-order nonbilinear data: Theory and simulations. *Journal of the American Chemical Society*, *111*, 3797–3804.

Wilson, B. E., Sanchez, E., & Kowalski, B. R. (1989). An improved algorithm for the generalized rank annihilation method. *Journal of Chemometrics*, *3*, 493–498.

Windig, W., Antalek, B., Robbins, M. J., Zumbulyadis, N., & Heckler, C. E. (2000). Applications of the direct exponential curve resolution algorithm (DECRA) to solid state nuclear magnetic resonance and mid-infrared spectra. *Journal of Chemometrics*, *14*, 213–227.

Windig, W., Antalek, B., Sorriero, L. J., Bijlsma, S., Louwerse, D. J., & Smilde, A. K. (1999). Applications and new developments of the direct exponential curve resolution algorithm (DECRA). Examples of spectra and magnetic resonance images. *Journal of Chemometrics*, *13*, 95–110.

Winsberg, S., & Carroll, J. D. (1989). A quasi-nonmetric method for multidimensional scaling of multiway data via a restricted case of an extended INDSCAL model. In R. Coppi & S. Bolasco (Eds.), *Multiway data analysis.* (pp. 405–414). Amsterdam: North-Holland.

Winsberg, S., & De Soete, G. (1993). A latent class approach to fitting the weighted Euclidean model, CLASCAL. *Psychometrika*, *58*, 315–330.

Winsberg, S., & Menil, V. C. (1993). The recovery of structure in linear and ordinal data: INDSCAL versus ALSCAL. *Multivariate Behavioral Research*, *28*, 215–233.

Wise, B. M., & Gallagher, N. B. (1996). The process chemometrics approach to process monitoring and fault detection. *Journal of Process Control*, *6*, 329–348.

Wish, M., & Carroll, J. D. (1972). Multi-dimensional scaling with differential weighting of dimensions. In F. R. Hodson, D. G. Kendall, & P. Tautu (Eds.), *Mathematics in the archeological and historical sciences.* (pp. 150–167). Edinburgh: Edinburgh University Press.

Wish, M., & Carroll, J. D. (1982). Multidimensional scaling and its applications. *Handbook of Statistics*, *2*, 317–345.

Wold, S., Geladi, P., Esbensen, K., & Öhman, J. (1987). Multi-way principal components and PLS-analysis. *Journal of Chemometrics*, *1*, 41–56.

Wold, S., Ruhe, A., Wold, H., & Dunn III, W. J. (1984). The collinearity problem in linear regression, the partial least squares (PLS) approach to generalized inverses. *SIAM Journal of Statistics and Computations*, *5*, 735–743.

Wright, R. D., & Elliott, S. J. (1990). Parameter interpolation in speech synthesis. *Journal of the Acoustical Society of America*, *87*, 383–391.

Wu, H. L., Feng, Y. Q., Shibukawa, M., & Oguma, K. (1997). Alternative algorithm for simultaneous determinations of components poorly resolved by liquid chromatography with multiwavelength detection. *Analytical Sciences*, *13*, 99–108.

Xie, Y.-L., Baeza-Baeza, J. J., & Ramis-Ramos, G. (1995). Kinetic spectrophotometric resolution of binary mixtures using three-way partial least squares. *Chemometrics and Intelligent Laboratory Systems*, *27*, 211–220.

Xie, Y.-L., Baeza-Baeza, J. J., & Ramis-Ramos, G. (1996). Second-order tensorial calibration for kinetic spectrophotometric determination. *Chemometrics and Intelligent Laboratory Systems*, *32*, 215–232.

Xie, Y. L., Hopke, P. K., & Paatero, P. (1998). Positive matrix factorization applied to a curve resolution problem. *Journal of Chemometrics*, *12*, 357–364.

Xie, Y. L., Hopke, P. K., Paatero, P., Barrie, L. A., & Li, S. M. (1999a). Identification of source nature and seasonal variations of Arctic aerosol by positive matrix factorization. *Journal of the Atmospheric Sciences*, *56*, 249–260.

Xie, Y.-L., Hopke, P. K., Paatero, P., Barrie, L. A., & Li, S.-M. (1999b). Identification of source nature and seasonal variations of Arctic aerosol by the multilinear engine. *Atmospheric Environment*, *33*, 2549–2562.

Xie, Y.-L., Hopke, P. K., Paatero, P., Barrie, L. A., & Li, S.-M. (1999c). Locations and preferred pathways of possible sources of Arctic aerosol. *Atmospheric Environment*, *33*, 2229–2239.

Yakovleva, E., Hopke, P. K., & Wallace, L. (1999). Receptor modeling assessment of particle total exposure assessment methodology data. *Environmental Science and Technology*, *33*, 3845–3652.

Yanai, H. (1994). *Tahenryo data kaiseki-ho: Riron to ohyo.* [Methods of multivariate data analysis: Theory and applications. Chapter 8: (pp. 151-159)]. Tokyo: Asakura-shoten.

Yoshino, Y. (1986). Dimensional subtypes of depression derived by three-mode factor analysis. *Kyushu Neuro-Psychiatry*, *32*, 245–257.

Yoshizawa, T. (1975). Models for quantification techniques in multiple contingency tables: The theoretical approach. *Kodokeiryugaku [Japanese Journal of Behaviormetrics]*, *3*, 1–11.

Yoshizawa, T. (1976). A generalized definition of interactions and singular value decomposition of multiway arrays. *Kodokeiryugaku (Japanese Journal of Behaviormetrics)*, *4*, 32–42.

Yoshizawa, T. (1977). *Structure of multiarray data and population spaces.* Unpublished doctoral dissertation, Tokyo University, Tokyo.

Yoshizawa, T. (1988). Singular value decomposition of multiarray data and its applications. In E. Diday, C. Hayashi, M. Jambu, & N. Ohsumi (Eds.), *Recent developments in clustering and data analysis: Proceedings of the Japanese-French Scientific Seminar, March 24-26, 1987.* (pp. 241–257). Boston: Academic Press.

Young, F. W. (1981). Quantitative analysis of qualitative data. *Psychometrika*, *46*, 357–388.

Young, F. W. (1984). The general Euclidean model. In H. G. Law, C. W. Snyder Jr, J. A. Hattie, & R. P. McDonald (Eds.), *Research methods for multimode data analysis.* (pp. 440–469). New York: Praeger.

Zeng, Y., & Hopke, P. K. (1990). Methodological study applying three-mode factor analysis to three-way chemical data sets. *Chemometrics and Intelligent Laboratory Systems*, *7*, 237–250.

Zeng, Y., & Hopke, P. K. (1992a). A new receptor model: A direct trilinear decomposition followed by a matrix reconstruction. *Journal of Chemometrics*, *6*, 65–83.

Zeng, Y., & Hopke, P. K. (1992b). The application of three-mode factor analysis (TMFA) to receptor modeling of scenes particle data. *Atmospheric Environment*, *26A*, 1701–1711.

Zenisek, T. J. (1978). Three-mode factor analysis via a modification of Tucker's computational Method III. *Educational and Psychological Measurement*, *38*, 787–792.

Zenisek, T. J. (1980). The measurement of job satisfaction: A three-mode factor analysis. *Dissertation Abstracts International*, *41*, 75.

Zhang, T., & Golub, G. H. (2001). Rank-one approximation to high order tensors. *Siam Journal on Matrix Analysis and Applications*, *23*, 534–550.

Zielman, B. (1991). *Three-way scaling of asymmetric proximities.* Unpublished doctoral dissertation, Department of Data Theory, Leiden University, Leiden, The Netherlands.

Zielman, B. (1993). Directional analysis of three-way skew-symmetric matrices. In O. Opitz, B. Lausen, & R. Klar (Eds.), *Information and classification: Concepts, methods and applications.* (pp. 156–161). Berlin: Springer.

Zissis, K. D., Brereton, R. G., Dunkerley, S., & Escott, R. E. A. (1999). Two-way, unfolded three-way and three-mode partial least squares calibration of diode array HPLC chromatograms for the quantitation of low-level pharmaceutical impurities. *Analytica Chimica Acta*, *384*, 71–81.