

CHAPTER 11

REFERENCES. A DEEP SEA OF LUMINESCENT IDEAS

- Abel, N. H. (1881). *Œuvres Complètes*. Tome I. Christiana: Grondahl & Son. [Reedición Sceaux: Éditions Jacques Gabay, 1992]
- Alarcón, J., Figueras, O., Filloy, E., Gispert, M., Lema, S., Parra, B. M., Recio, J., Rojano, T. and Zubieta, G. (1981–1982). *Matemáticas 100 Horas, 1 y 2*. México, Bogotá, Caracas, Santiago, San Juan y Panamá: Fondo Educativo Interamericano.
- al-Tûsî, S. (1986). *Œuvres Mathématiques, Algèbre et Géométrie au XIIe siècle*. Tomes I et II. Texte établi et traduit par Roshdi Rashed. Paris: Les Belles Lettres.
- Anbouba, A. (1978). L’algèbre arabe aux IXe et Xe siècles. Aperçu général. *Journal for the History of Arabic Science*, 2, 66–100.
- Bachmann, H. (1955). *Transfinite Zahlen*. Berlin: Springer Verlag.
- Bednarz, N. and Janvier, B. (1996). Emergence and development of algebra as a problem-solving tool: Continuities and discontinuities with arithmetic. In N. Bednarz, C. Kieran, and L. Lee (Eds.), *Approaches to Algebra: Perspectives for Research and Teaching* (pp. 115–136). Dordrecht, The Netherlands: Kluwer Academic.
- Bednarz, N., Radford, L., Janvier, B., and Lapage, A. (1992). Arithmetical and algebraic thinking in problem solving. In W. Geeslin and K. Graham (Eds.), *Proceedings of the 16th International Conference for the Psychology of Mathematics Education* (Vol. 1, pp. 65–72). Durham, NH: PME Program Committee.
- Bell, A. W. (1996). Problem-solving approaches to algebra: Two aspects. In N. Bednarz, C. Kieran, and L. Lee (Eds.), *Approaches to Algebra. Perspectives for Research and Teaching* (pp. 167–186). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Benacerraf, P. (1983). What numbers could not be. In P. Benacerraf and H. Putman (Eds.), *Philosophy of Mathematics. Selected Readings* (pp. 272–294). Cambridge, UK: Cambridge University Press.
- Boncompagni, B. (Ed.) (1857). *Scritti di Leonardo Pisano Matematico del Secolo Decimoterzo. I. Il Liber Abbaci di Leonardo Pisano*. Roma: Tipografia delle Scienze Matematiche e Fisiche.
- Boohan, R. (1994). Interpreting the world with numbers: An introduction to quantitative modelling. In H. Mellar, J. Bliss, R. Boohan, J. Ogborn, and C. Timpsett (Eds.), *Learning with Artificial Worlds* (pp. 49–58). London: The Falmer Press.
- Booth, L. (1984). *Algebra: Children’s Strategies and Errors*. Windsor: NFER-Nelson.
- Bortolotti, E. (Ed.) (1966). *R. Bombelli. L’Algebra*. A cura di U. Forti e E. Bortolotti. Milano: Feltrinelli.
- Bourbaki, N. (1966). *Éléments de Mathématique. Fascicule XVII. Théorie des Ensembles. Chapitre 1 et 2. Description de la Mathématique Formelle. Théorie des Ensembles*. Paris: Hermann.
- Boyer, C. B. (1959). *The History of the Calculus*. New York: John Wiley.
- Boyer, C. B. (1968). *A History of Mathematics*. New York: John Wiley.
- Brousseau, G. (1996). Fondements et méthodes de la didactique des mathématiques. *Recherches en Didactique des Mathématiques*, 7, 33–115.
- Brousseau, G. (1997). *Theory of Didactical Situations in Mathematics*. Dordrecht/Boston/London: Kluwer Academic Publishers.
- Brown, T. (2001). *Mathematics Education and Language. Interpreting Hermeneutics and Post-Structuralism*, revised second edition. Dordrecht/Boston/London: Kluwer Academic Publishers.

- Carpenter, T., Moser, J. and Romberg, T. (Eds.) (1982). *Addition and Subtraction: A Cognitive Perspective*. Hillsdale, NJ: Lawrence Erlbaum.
- Cerdán, F. (in preparation). *Problemas verbales aritmético-algebraicos. El método de análisis y síntesis y el método cartesiano*. Tesis doctoral. Universidad de Valencia.
- Clagett, M. (1959). *The Science of Mechanics in the Middle Ages*. Madison, Milwaukee and London: The University of Wisconsin Press.
- Clagett, M. (1968). *Nicole Oresme and the Medieval Geometry of Qualities and Motions*. Madison, Milwaukee and London: The University of Wisconsin Press.
- Colebrooke, H. T. (ed. and trans.) (1817). *Algebra with Arithmetic and Mensuration from the Sanscrit. Brahme Gupta and Bháscara*. London: John Murray.
- Cuevas, G. J. and Yeatts, K. (2001). *Navigating Through Algebra in Grades 3–5*. Reston, VA: National Council of Teachers of Mathematics.
- Chevallard, Y. (1983). Le passage de l'arithmétique à l'algébrique dans l'enseignement des mathématiques au Collège. *Petit X*, 5, 51–94.
- Descartes, R. (1701). *Opuscula Posthuma Physica et Mathematica*. Amsterdam: Typographia P. and Blaev J.
- Descartes, R. (1826). *Règles pour la Direction de l'Esprit*. In *Œuvres de Descartes*, publiées par Victor Cousin. Tome onzième. Paris: Chez F. G. Levrault, libraire.
- Descartes, R. (1996). *Regulæ ad Directionem Ingeni*. In *Œuvres de Descartes*. Tome X. Édition de Charles Adam et Paul Tannery. Paris: Librairie Philosophique J. Vrin.
- Drouhard, J. P. (1992). *Les Écritures Symboliques de l'Algèbre Élémentaire*. Thèse de doctorat, Université Denis Diderot, Paris 7.
- Duval, R. (1995). *Sémiosis et Pensée Humaine. Registres sémiotiques et apprentissage intellectuels*. Berne: Peter Lang.
- Eco, U. (1984). *Semiotics and Philosophy of Language*. London: The Macmillan Press.
- Edwards, C. (1979). *The Historical Development of the Calculus*. New York: Springer Verlag.
- Figuera, O., Filloy, E. and Valdemoros, M. (1985). The development of spatial imagination abilities and contextualisation strategies: Models based on the teaching of fractions. In L. Streefland (Ed.), *Proceedings of the Ninth International Conference for the Psychology of Mathematics Education* (Vol. 1, pp. 328–333). Noordwijkerhout, The Netherlands.
- Figuera, O., Filloy, E. and Valdemoros, M. (1986). Some considerations on the graphic representation of fractions and their interpretation. In G. Lapan and E. Ruhama (Eds.), *Proceedings of the Eighth Annual Meeting of the PME-NA* (pp. 78–83). East Lansing, Michigan.
- Filloy, E. (1980). Álgebra del nivel medio y análisis epistemológico: de Bombelli a Vieta. *Actas del V Congreso Nacional de Profesores*. México.
- Filloy, E. (1990). PME algebra research. A working perspective. In G. Booker et al. (Eds.), *Proceedings of the Fourteenth Annual Conference for the Psychology of Mathematics Education* (Vol. 1, pp. PII 1–PII 33). Oaxtepec, Morelos, México.
- Filloy, E. (1991). Cognitive tendencies and abstraction processes in algebra learning. In F. Furinghetti (Ed.), *Proceedings of the Fifteenth Annual Conference for the Psychology of Mathematics Education* (Vol. 2, pp. 48–55). Assisi, Italia.
- Filloy, E. (1993a). El libro de los cuadrados de Leonardo de Pisa. In E. Filloy, L. Puig, and T. Rojano (Eds.), *Memorias del Tercer Simposio Internacional sobre Investigación en Educación Matemática. Historia de las Ideas Algebraicas* (pp. 11–30). México, DF: CINVESTAV/PNFAPM.
- Filloy, E. (1993b). Tendencias cognitivas y procesos de abstracción en el aprendizaje del álgebra y de la geometría. *Enseñanza de las ciencias*, 11(2), 160–166.
- Filloy, E. and Lema, S. (1996). El Teorema de Thales: significado y sentido en un sistema matemático de signos. In F. Hitt (ed.), *Investigaciones en Matemática Educativa* (pp. 55–75). México, DF: Grupo Editorial Iberoamérica.

- Filloy, E. and Rojano, T. (1983). *Movimiento de la Incógnita, Terminación de la Aritmética?* México: SME.
- Filloy, E. and Rojano, T. (1984). From an arithmetical to an algebraic thought (a clinical study with 12–13 year olds). In J. Moser (ed.), *Proceedings of the Sixth Annual Meeting for the Psychology of Mathematics Education, North American Chapter* (pp. 51–56). Madison, WI, USA.
- Filloy, E. and Rojano, T. (1985a). Obstructions to the acquisition of elemental algebraic concepts and teaching strategies. In L. Streefland (ed.), *Proceedings of the Ninth Annual Conference for the Psychology of Mathematics Education* (pp. 154–158). Utrecht, Holanda.
- Filloy, E. and Rojano, T. (1985b). Operating the unknown and models of teaching (a clinical study with 12–13 year olds with a high proficiency in Pre-Algebra). In S. K. Damarin and M. Shelton (eds.), *Proceedings of the Seventh Annual Meeting for the Psychology of Mathematics Education, North American Chapter* (pp. 75–79). Columbus, OH.
- Filloy, E. and Rojano, T. (1989). Solving equations: The transition from arithmetic to algebra. *For the Learning of Mathematics*, 9(2), 19–25.
- Filloy, E. and Rojano, T. (2001). Algebraic syntax and word problems solution: First steps. In M. van den Heuvel-Panhuizen (ed.), *Proceedings of the Twenty-fifth Annual Conference for the Psychology of Mathematics Education* (Vol. 2, pp. 417–424). Utrecht, The Netherlands.
- Filloy, E. and Rubio, G. (1991). Unknown and variable in analytical methods for solving word arithmetic/algebraic problems. In R. G. Underhill (ed.), *Proceedings of the Thirteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 1, pp. 64–69). Blacksburg, VA.
- Filloy, E. and Rubio, G. (1993a). Didactic models, cognition and competence in the solution of arithmetic and algebra word problems. In I. Hirabayashi, N. Nohda, K. Shigematsu, and F. Lin (eds.), *Proceedings of the Seventeenth International Conference for the Psychology of Mathematics Education* (Vol. 1, pp. 154–161). Tsukuba, Ibaraki, Japan.
- Filloy, E. and Rubio, G. (1993b). Family of arithmetical and algebraic word problems, and the tensions between the different uses of algebraic expressions. In J. R. Becker and B. J. Pence (eds.), *Proceedings of the Fifteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 1, pp. 142–148). Pacific Grove, CA.
- Filloy, E. and Sutherland, R. (1996). Designing curricula for teaching and learning algebra. In A. Bishop, K. Clements, C. Keitel, J. Kilpatrick and C. Laborde (eds.), *International Handbook of Mathematics Education* (Vol. 1, pp. 139–160). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Filloy, E., Rojano, T. and Rubio, G. (2001). Propositions concerning the resolution of arithmetical-algebraic problems. In R. Sutherland, T. Rojano, A. Bell, and R. Lins (eds.), *Perspectives on School Algebra* (pp. 155–176). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Filloy, E., Rojano, T. and Solares, A. (2002). Cognitive tendencies: The interaction between semantics and algebraic syntax in the production of syntactic errors. In A. Cockburn and E. Nardi (eds.), *Proceedings of the Twenty-sixth Annual Conference for the Psychology of Mathematics Education* (Vol. 4, pp. 129–136). Norwich, UK.
- Filloy, E., Rojano, T. and Solares, A. (2004). Arithmetic/algebraic problem-solving and the representation of two unknown quantities. In M. Johnsen Høines, and A. B. Fuglestad (Eds.), *Proceedings of the Twenty-eighth Annual Conference for the Psychology of Mathematics Education* (Vol. 2, pp. 391–398). Bergen, Norway.
- Freudenthal, H. (1973). *Mathematics as an Educational Task*. Dordrecht: Reidel.
- Freudenthal, H. (1983). *Didactical Phenomenology of Mathematical Structures*. Dordrecht: Reidel.

- Fridman, L. M. (1990). Los grafos trinomiales como metalenguaje de los problemas. *Matemáticas. Revista del Departamento de Matemáticas de la Universidad de Sonora, 17-18*, 51–59.
- Friel, S., Rachlin, S. and Doyle, D. (2001). *Navigating Through Algebra in Grades 6–8*. Reston, VA: National Council of Teachers of Mathematics.
- Fuson, K. (1998). *Children's Counting and Concept of Number*. New York: Springer Verlag.
- Galois, É. (1846). Œuvres mathématiques d'Évariste Galois. *Le Journal de Liouville, XI*, 381–444. [Reedición *Œuvres Mathématiques, Publiées en 1846 dans le Journal de Liouville, Suivies d'une étude par Sophus Lie*. Sceaux: Éditions Jacques Gabay, 1989.]
- Ginsburg, H., Inoue, N. and Seo, K. (1999). Young children doing mathematics: Observations of everyday activities. In J. V. Copley (ed.), *Mathematics in the Early Years* (pp. 88–99). Reston, Va.: National Council of Teachers of Mathematics, and Washington, D.C.: National Association for the Education of Young Children.
- Glassner, J.-J. (2000). *Écrire à Sumer. L'Invention du Cunéiforme*. Paris: Seuil.
- Grant, E. (1969). *Nicole Oresme, De Proportionibus and Pauca Respicientes*. Madison, Milwaukee and London: The University of Wisconsin Press.
- Grant, E. (1971). *Nicole Oresme and the Kinematics of Circular Motions*. Madison, Milwaukee and London: The University of Wisconsin Press.
- Greenes, C., Cavanagh, M., Dacey, L., Findell, C. and Small, M. (2001). *Navigating Through Algebra in Prekindergarten-Grade 2*. Reston, VA: National Council of Teachers of Mathematics.
- Hamilton, N. and Landin, J. (1961). *Set Theory and The Structure of Arithmetic*. Boston: Allyn and Bacon, Inc.
- Heath, Th. (1921). *A History of Greek Mathematics*. 2 vols. Oxford: Clarendon Press. [Reprinted in New York: Dover, 1981.]
- Høyrup, J. (1985). Varieties of mathematical discourse in pre-modern socio-cultural contexts: Mesopotamia, Greece, and the Latin Middle Ages. *Science and Society, XLIX*, 4–41.
- Høyrup, J. (1986). Al-Khwārizmī, Ibn Turk, and the Liber Mensurationum: On the origins of Islamic algebra. *ERDEM, 2*, 445–484.
- Høyrup, J. (1987). The formation of 'Islamic Mathematics'. Sources and conditions. *Science in Context, 1*, 281–329.
- Høyrup, J. (1991). 'Oxford' and 'Cremona': On the relations between two versions of al-Khwārizmī's Algebra. *Filosofi og videnskabsteori på Roskilde Universitetcenter*. 3. Række: Preprint og Reprints nr. 1.
- Høyrup, J. (1999a). The founding of Italian vernacular algebra. *Filosofi og videnskabsteori på Roskilde Universitetcenter*. 3. Række: Preprint og Reprints 1999 nr. 2.
- Høyrup, J. (1999b). VAT. LAT. 4826. Jacopo da Firenze, Tractatus algorismi. Preliminary transcription of the manuscript, with occasional commentaries. *Filosofi og videnskabsteori på Roskilde Universitetcenter*. 3. Række: Preprint og Reprints 1999 nr. 3.
- Høyrup, J. (2002a). *Lengths, Widths, Surfaces. A Portrait of Old Babylonian Algebra and Its Kin*. New York: Springer-Verlag.
- Høyrup, J. (2002b). Pre-Modern "Algebra": A concise survey of that which was shaped into the technique and discipline we know, *Quaderni di Ricerca in Didattica G.R.I.M.*, 11, <http://math.unipa.it/~grim/quaderno11.htm>.
- Hughes, B. (1981). *Jordanus de Nemore. De Numeris Datis*, Berkeley, CA: University of California Press.
- Hughes, B. (1986). Gerard of Cremona's translation of al-Khwārizmī's al-jabr: A critical edition. *Mediaeval Studies*, 48, 211–263.
- Ifrah, G. (1994). *Histoire Universelle des Chiffres. L'Intelligence des Hommes Racontée par les Nombres et le Calcul*. Paris: Robert Laffont.

- Isbell, J. R. (1960). A definition of ordinal numbers. *American Mathematical Monthly*, 67(1), 51–52.
- Iwasaki, H. and Yamaguchi, T. (1997). The cognitive and symbolic analysis of the generalization process: the comparison of algebraic signs with geometric figures. In E. Pehkonen (ed.), *Proceedings of the Twenty First Annual Conference for the Psychology of Mathematics Education* (Vol. 3, pp. 105–112). Lahti, Finland.
- Jones, C. V. (1978). *On the Concept of One as a Number*. Doctoral dissertation, University of Toronto.
- Kalmykova, Z. I. (1975). Processes of analysis and synthesis in the solution of arithmetic problems. In J. Kilpatrick, I. Wirszup, E. G. Begle, and J. W. Wilson, J. (eds.), *Soviet Studies in the Psychology of Learning and Teaching Mathematics. Vol. XI. Analysis and Synthesis as Problem Solving Methods* (pp. 1–171). Stanford, CA: NCTM.
- Kaput, J. J. (1987). Representations systems and mathematics. In C. Janvier (ed.), *Problems of Representation in the Teaching and Learning of Mathematics* (pp. 19–26). Hillsdale, NJ: Lawrence Erlbaum.
- Kaput, J. J. (1989). Linking representations in the symbol systems of algebra. In S. Wagner and C. Kieran (Eds.), *Research Issues in the Learning and Teaching of Algebra* (Vol. 4, pp. 167–194). Hillsdale, NJ/Reston, VA: Lawrence Erlbaum Associates/National Council of Teachers of Mathematics
- Kasir, D. S. (1931). *The Algebra of Omar Khayyam*. New York, NY: Bureau of Publications Teacher College of Columbia University.
- Kieran, C. (1980). The interpretation of the equal sign: Symbol for an equivalence relation vs. an operator symbol. In R. Karplus (ed.), *Proceedings of the Fourth Conference of the International Group for the Psychology of Mathematics Education* (pp. 163–169). Berkeley, CA, University of California.
- Kieran, C. (1981). Concepts associated with the equality symbol. *Educational Studies in Mathematics*, 12, 317–326.
- Kieran, C. and Filloy, E. (1989). El aprendizaje del álgebra escolar desde una perspectiva psicológica. *Enseñanza de las Ciencias*, 7, 229–240.
- Kieran, C. and Sfard, A. (1999). Seeing through symbols: The case of equivalent expressions. *Focus on Learning Problems in Mathematics*, 21(1), 1–17.
- Kirshner, D. (1987). *The Grammar of Symbolic Elementary Algebra*. Doctoral dissertation, University of British Columbia, Vancouver.
- Klein, J. (1968). *Greek Mathematical Thought and the Origins of Algebra*. Cambridge, MA: MIT Press. [Reprinted in New York: Dover, 1992.]
- Krutetskii, V. D. (1976). *The Psychology of Mathematical Abilities in School Children*. Chicago: The University of Chicago Press.
- Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*. Chicago: The University of Chicago Press.
- Lagrange, J. L. de. (1899). *Œuvres*. Publiées par les soins de J.-A. Serret. Tome troisième. Paris: Gauthier-Villars. [Reprinted in Hildesheim and New York: Georg Olms Verlag, 1973.]
- Lakatos, I. (1976). *Proofs and Refutations*. Cambridge, UK: Cambridge University Press.
- Lee, L. (1996). An initiation into algebraic culture through generalization activities. In N. Bednarz, C. Kieran and L. Lee (eds.), *Approaches to Algebra. Perspectives for Research and Teaching* (pp. 87–106). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Levey, M. (ed.) (1966). *The Algebra of Abû Kâmil, in a Commentary by Mordecai Finzi*. Hebrew text and translation, and commentary. Madison, WI: The University of Wisconsin Press.
- Malara, N. and Navarra, G. (2003). *ArAl Projec. Atrithmetic Pathways Towards Favouiring Pre-algebraic Thinking*. Bologna: Pitagora Editrice.

- Marre, A. (1880). Notice sur Nicolas Chuquet et son Triparty en la science des nombres. *Bulletino di Bibliografia e Storia delle Scienze Matematiche e Fisice*, 13, 555—659 and 693—814.
- Mason, J. (1996). Expressing generality and roots of algebra. In N. Bednarz, C. Kieran and L. Lee (Eds.), *Approaches to Algebra. Perspectives for Research and Teaching* (pp. 65—86). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Matz, M. (1982). Towards a process model for high school algebra errors. In D. Seeman and J. S. Brown (eds.), *Intelligent Tutoring Systems* (pp. 25—50). New York: Academic Press.
- Mazzinghi, M. A. di. (1967). *Trattato di Fioretti*. (Arrighi, G. Ed.) Pisa: Domus Galileana.
- Nassar, A. (2001). *El Efecto de Enseñar Algunas Estrategias de Resolución de Problemas en la Actuación de los Alumnos del Nivel 3º de Secundaria al Resolver Problemas Verbales Algebraicos en Gaza (Palestina)*, Tesis doctoral. Universitat de València.
- Nemirovsky, R. (1996). Mathematical narratives, modeling and algebra. In N. Bednarz, C. Kieran and L. Lee (eds.), *Approaches to Algebra. Perspectives for Research and Teaching* (pp. 197—220). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Neugebauer, O. (1969). *The Exact Sciences in Antiquity*. New York: Dover.
- Peirce, C. S. (1931—58). *Collected Papers of Charles Sanders Peirce*. Edited by Charles Hartshorne and Paul Weiss (vols. 1—6) and by Arthur Burks (vols. 7—8). Cambridge, MA: The Belknap Press of Harvard University Press.
- Peirce, C. S. (1982-). *Writings of Charles S. Peirce: A Chronological Edition*, 6 vols. to date. Edited by Edward C. Moore, Max Fisch, Christian J. W. Kloesel et al. Bloomington: Indiana University Press.
- Pimm, D. (1987). *Speaking Mathematically. Communication in Mathematics Classrooms*. London: Routledge.
- Polya, G. (1957). *How to Solve It*. 2nd. edition. Princeton, NJ: Princeton University Press.
- Polya, G. (1966). *Mathematical Discovery. 2 vols*. New York: John Wiley and Sons.
- Puig, L. (1994). El *De Numeris Datis* de Jordanus Nemorarius como sistema matemático de signos. *Mathesis*, 10(1), 47—92.
- Puig, L. (1996). *Elementos de Resolución de Problemas*. Granada: Comares, col. Mathema.
- Puig, L. (1997). Análisis fenomenológico. In L. Rico (Ed.), *La Educación Matemática en la Enseñanza Secundaria* (pp. 61—94). Barcelona: ICE/Horsori.
- Puig, L. (1998). Componentes de una historia del álgebra. El texto de al-Khwârizmî restaurado. In F. Hitt (Ed.), *Investigaciones en Matemática Educativa II* (pp. 109—131). México, DF: Grupo Editorial Iberoamérica.
- Puig, L. and Cerdán, F. (1988). *Problemas Aritméticos Escolares*. Madrid: Ed. Síntesis.
- Puig, L. and Cerdán, F. (1990). Acerca del carácter aritmético o algebraico de los problemas verbales. In E. Filloy, and T. Rojano (Eds.), *Memorias del Segundo Simposio Internacional sobre Investigación en Educación Matemática* (pp. 35—48). Cuernavaca, Morelos: PNFAPM.
- Puig, L. and Rojano, T. (2004). The history of algebra in mathematics education. In K. Stacey, H. Chick, and M. Kendal (eds.), *The Teaching and Learning of Algebra: The 12th ICMI study* (pp. 189—224). Boston/Dordrecht/New York/London: Kluwer Academic Publishers.
- Radford, L. (2000a). The historical origins of algebraic thinking. In R. Sutherland, T. Rojano, A. Bell, and R. Lins (Eds.), *Perspectives on School Algebra* (pp. 13—36). Dordrecht/Boston/London: Kluwer Academic Publishers.
- Radford, L. (2000b). Signs and meanings in students' emergent algebraic thinking: A semiotic analysis, *Educational Studies in Mathematics*, 42(3), 237—268.
- Radford, L. (2003). On the epistemological limits of language. Mathematical knowledge and social practice in the Renaissance. *Educational Studies in Mathematics*, 52(2), 123—150.

- Radford, L. (2004). The Cultural-Epistemological Conditions of the Emergence of Algebraic Symbolism. Paper presented at the 2004 *History and Pedagogy of Mathematics Conference*, Uppsala, Sweden.
- Rashed, R. (ed.) (1984). *Diophante. Tome III. Les Arithmétiques. Livre IV, et Tome IV, Livres V, VI et VII*. Texte de la traduction arabe de Qustâ ibn Lûqâ établi et traduit par Roshdi Rashed. Paris: Les Belles Lettres.
- Rashed, R. and Vahebzadeh, B. (1999). *Al-Khayyâm mathématicien*. Paris: Librairie Scientifique et Technique Albert Blanchard.
- Rojano, T. (1985). De la aritmética al álgebra: un estudio clínico con niños de 12 a 13 años de edad. Unpublished Doctoral dissertation, Centro de Investigación y de Estudios Avanzados del IPN, D.F., México.
- Rosen, F. (1831). *The Algebra of Mohammed Ben Musa*. London: Oriental Translation Fund.
- Rotman, B. (1988). Toward a semiotics of mathematics. *Semiotica*, 72, 1–35.
- Rotman, B. (1993). *Ad Infinitum... The Ghost in Turing's Machine*. Stanford, CA: Stanford University Press.
- Rotman, B. (2000). *Mathematics as Sign. Writing, Imagining, Counting*. Stanford, CA: Stanford University Press.
- Russell, B. (1973). Is mathematics purely linguistic? In D. Lackey (Ed.), *Essays in Analysis* by Bertrand Russell (pp. 295–306). London: George Allen and Unwin Ltd.
- Schmandt-Besserat, D. (1992). *Before Writing. I. From Counting to Cuneiform*. Austin: University of Texas Press.
- Sesiano, J. (ed.) (1982). *Books IV to VII of Diophantus' Arithmetica in the Arabic Translation attributed to Qustâ ibn Lûqâ*. Berlin, Heidelberg, New York: Springer Verlag.
- Sesiano, J. (1993). La version latine médiévale de l'Algèbre d'Abû Kâmil. In M. Folkerts, and J. P. Hogendijk (Eds.), *Vestigia Mathematica. Studies in Medieval and Early Modern Mathematics in Honour of H. L. L. Busard* (pp. 315–452). Amsterdam and Atlanta, GA: Editions Rodopi B. V.
- Sigler, L. E. (1987). *Leonardo Pisano Fibonacci. The Book of Squares*. An annotated translation into modern English by L. E. Sigler. Orlando, FL: Academic Press.
- Sigler, L. E. (2002). *Fibonacci's Liber Abaci. A Translation into Modern English of Leonardo Pisano's Book of Calculation*. Translated by Laurence E. Sigler. New York/Berlin/Heidelberg: Springer Verlag.
- Stacey, K. (1989). Finding and using patterns in linear generalising problems. *Educational Studies in Mathematics*, 42(3), 379–402.
- Stevin, S. (1634). *Les Œuvres Mathématiques de Simon Stevin de Bruges*, edited by Girard. Leyden: Elzevirs.
- Szabó, Á. (1977). *Les débuts des mathématiques grecques*. Paris: Vrin.
- Taisbak, C. M. (2003). *Euclid's Data. The Importance of Being Given*. Copenhagen: Museum Tusulanum Press.
- Talens, J. and Company, J. M. (1984). The textual space: On the notion of text. *The Journal of the Midwest Modern Language Association*, 17(2), 24–36.
- Tannery, P. (Ed.) (1893). *Diophanti Alexandrini Opera Omnia cum Graecis Commentariis*. Edidit et latine interpretatus est Paulus Tannery. 2 vols. Stuttgart: B. G. Teubner. [Reprinted in 1974.]
- Thorndike, E. L. et al. (1923). *The Psychology of Algebra*. New York: The Macmillan Company.
- Usiskin, Z. (1999). Conceptions of school algebra and uses of variables. In B. Moses (ed.), *Algebraic Thinking, Grades K-12: Readings from NCTM's School-Based Journals and Other Publications* (pp. 7–13). Reston, VA: National Council of Teachers of Mathematics.
- Vallejo, J. M. (1841). *Tratado Elemental de Matemáticas, Escrito de Orden de S. M. para Uso de los Caballeros Seminaristas del Seminario de Nobles de Madrid y Demás Casas de*

- Educación del Reino. Cuarta Edición Corregida y Considerablemente Aumentada. Tomo I. Parte primera, que contiene la Aritmética y Álgebra.* Madrid: Imprenta Garrasayaza.
- Van Der Waerden, B. L. (1954). *Science Awakening I: Egyptian, Babylonian & Greek Mathematics.* Groningen: Noordhoff.
- Van Dooren, W., De Bock, D., Depaep, F., Janssens, D. and Verschaffel, L. (2003). The illusion of linearity: Expanding the evidence towards probabilistic reasoning. *Educational Studies in Mathematics*, 53, 113–138.
- Van Egmond, W. (1980). *Practical mathematics in the Italian renaissance. (A Catalog of Italian Abacus Manuscripts and Printed Books to 1600).* Firenze, Italy: Annali dell' Instituto e Museo di Storia della Scienza, fascicolo 1, Instituto e Museo di Storia della Scienza.
- Van Schooten, F. (1646). *Francisci Vietæ Opera Mathematica.* Lugduni Batavorum: Ex Officinâ Bonaventuræ & Abrahami Elzeviriorum.
- Ver Eecke, P. (1952). *Leonard de Pise. Le Livre des Nombres Carrés.* Traduit pour la première fois du latin médiéval en Français, avec une introduction et des notes par Paul Ver Eecke. Paris: Albert Blanchard.
- Ver Eecke, P. (1959). *Diophante d'Alexandrie. Les Six Livres d'Arithmétiques et le Livre des Nombres Polygones.* Traduit du grec, avec une introduction et des notes par Paul Ver Eecke. Paris: Albert Blanchard.
- Ver Eecke, P. (1973). *Leonardo de Pisa. El Libro de los Números Cuadrados.* Traducción de la versión francesa de Paul Ver Eecke de Pastora Sofia Nogués Acuna. Buenos Aires: Editorial Universitaria de Buenos Aires.
- Vergnaud, G. (1981). *L'Enfant la Mathématique et la Réalité.* Berne: Peter Lang.
- Vergnaud, G. (1982). A classification of cognitive tasks and operations of thought involved in addition and subtraction problems. In T. P. Carpenter, J. M. Moser, and T. A. Romberg (eds.), *Addition and Subtraction: A Cognitive Perspective* (pp. 39–59). Hillsdale, NJ: Lawrence Erlbaum.
- Verschaffel, L., Greer, B. and De Corte, E. (2000). *Making Sense of Word Problems.* Lisse: Swets & Zeitlinger.
- Von Neumann, J. (1923). Zur Einführung der transfiniten Zahlen. *Acta Litterarum ac Scientiarum Regiæ Universitatis Hungaricæ Francisco-Josephine, Sectio Scientiarum Mathematicarum, 1*, 199–208. [Translated as “On the Introduction of Transfinite Numbers” by J. Van Heijenoort. In J. van Heijenoort (Ed.), (1967). *From Frege to Gödel. A Source Book in Mathematical Logic, 1879-1931* (pp. 346–354). Cambridge, MA: Harvard University Press.]
- Vuillemin, J. (1962). *La Philosophie de l'Algèbre.* Paris: Presses Universitaires de France.
- Witmer, T. R. (ed.) (1983). *François Viète. The Analytic Art.* Kent, OH: The Kent State University Press.
- Wittgenstein, L. (1956). *Remarks on the Foundations of Mathematics.* Edited by G. H. von Wright, R. Rhees, and G. E. M. Anscombe. Oxford: Basil Blackwell. [Wittgenstein, L. (1984). *Bemerkungen über die Grundlagen der Mathematik.* Herausgegeben von G. H. von Wright, R. Rhees, and G. E. M. Anscombe. Suhrkamp: Frankfurt am Main.]
- Zazkis, R. and Liljedahl, P. (2001). Exploring multiplicative and additive structure of arithmetic sequences. In M. van den Heuvel-Panhuizen (Ed.), *Proceedings of the Twenty Fifth Annual Conference for the Psychology of Mathematics Education* (Vol. 4, pp. 439–446). Utrecht, The Netherlands.
- Zazkis, R. and Liljedahl, P. (2002). Generalization of patterns: The tension between algebraic thinking and algebraic notation. *Educational Studies in Mathematics*, 49(3), 379–402.
- Zermelo, E. (1909). Sur les ensembles finis et le principe de l'induction complète. *Acta Mathematica*, 32, 185–193.