Online Appendix 1 for:

Challenges in Digitalization for Holistic and Transparent Supply Chains during Crises

Table S1. Frequency of articles encountered and included in our analysis

Journal Title	Number of Articles
Journal of Marketing Education	1
Tourism and Hospitality Research	1
International Journal of Business and Management Future	1
International Journal of Urban Sciences	1
2020 International Conference on Decision Aid Sciences and Application (DASA)	1
Accounting, Auditing & Accountability Journal	1
Agribusiness	1
Agriculturae Conspectus Scientificus	1
Agricultural Systems	1
AgriGenderJournal of Gender, Agriculture and Food Security	1
Annals of Tourism Research	1
Applied Energy	2
Asian Business & Management	1
Australiasian Accounting, Business and Finance Journal	1
Benchmarking: An International Journal	1
Biomass and Bioenergy	1
Business and Economic Research	1
Business and Management Studies	1
Business Excellence and Management	1
BVIMSR's Journal of Management Research; Mumbai	1
Canadian Journal of Agricultural Economics	1
East African Scholars Multidisciplinary Bulletin	1
East Asian Economic Review	1
Ekonomia i Prawo. Economics and Law	1
Energies	1
Environment, Development & Sustainability	1
Environment, Development and Sustainability	1
Environmental and resource Economics	2
European Journal of Molecular and Clinical Medicine	1
European Journal of Research and Reflection in Management Sciences	1
Financial Innovation	1

Food Ethics	1
Foods	1
Global Journal of Flexible Systems Management	1
Gynecology and Obstetrics	1
Healthcare	1
Horn of Africa Journal of Business and Economics (HAJBE)	1
IEEE Access	1
IEEE Internet of Things Journal	1
IJRAR	1
Indian Journal of Extension Education	1
International Journal of Environmental Resesearch and Public Health	1
International Business Review	2
International Journal of Business Ecosystem & Strategy	1
International Journal of Contemporary Hospitality Management	1
International Journal of Economics and Financial Issues	2
International Journal of Financial Research	1
International Journal of Hospitality Management	1
International Journal of Infectious Diseases	1
International Journal of Information Management	1
International Journal of Innovative Science and Research Technology	1
International Journal of Intelligent Information Systems	1
International Journal of Logistics Research and Applications	2
International Journal of Multicultural and Multireligious Understanding	1
International Journal of Oil of Palm	1
International Journal of Operations & Production Management	1
International Journal of Operations and Production Management	1
International Journal of Organizational Innovation	1
International Journal of Pervasive Computing and Communications	1
International Journal of Physical Distribution & Logistics Management	1
International Journal of Production Research	1
International Journal of Productivity and Performance Management	1
International Journal of Research in Business and Social Science	1
International Journal of Sociology and Social Policy	1
International Journal of Supply and Operations Management	1
International Tax Review	1
Iranian Journal of Aquatic Animal Health	1
Journal of Agricultural & Food Industrial Organization	1
Journal of Air Transport Management	2
Journal of Business Research	4
Journal of Chinese Economic and Business Studies	1

Journal of Cleaner Production	1
Journal of Contemporary Issues in Business and Government	1
Journal of Economics and Business	1
Journal of Financial Regulation	1
Journal of Health Management	1
Journal of Industrial Information Integration	1
Journal of International Business Policy	2
Journal of International Conference Series	1
Journal of Knowledge Management	1
Journal of Manufacturing and Materials Processing	1
Journal of Manufacturing Systems	1
Journal of Organization Design	1
Journal of Politics & Governance	1
Journal of Public Value and Administrative Insight	1
Journal of Risk and Financial Management	1
Journal of Risk Research	1
Journal of Science and Technology Policy Management	1
Journal of Supply Chain Management	2
Journal of Sustainable Tourism	1
Knowledge and Process Management	1
Management & Marketing	1
Management of Environmental Quality	1
Management Research	1
Managerial and Decision Economics	1
Med	1
New Space*	1
International Review of Financial Analysis	1
OMICS: A Journal of Integrative Biology	1
Operations Management Research	1
Operations Research Perspectives	1
Procedia CIRP	1
Pure and Applied Biology	1
Regional Science Policy & Practice	1
Research Journal of Textile and Apparel	1
Resources, Conservation and Recycling	1
Sci	1
Science of The Total Environment	1
Social Sciences & Humanities Open	1
Sport in Society	1
Sustainability	8

Systems	1
Technological Forecasting and Social Change	1
Technology in Society	1
The European Journal of Development Research	1
The Gaze: Journal of Tourism and Hospitality	1
The International Spectator Italian Journal of International Affairs	1
The Journal of Applied Business and Economics	1
The Journal of Asian Finance, Economics and Business	1
The Journal of Rural Health	1
The Review of Corporate Finance Studies	1
The Strategic Journal of Business & Change Management	1
Tijdschrift voor Economische en Sociale Geografie	1
Tourism Management Perspectives	1
Transportation Research Part E: Logistics and Transportation Review	1
Turkish Journal of Computer and Mathematics Education	1
World Development	1
World's Poultry Science Journal	1
WSEAS Transactions on Business and Economics	1
ZoneModa Journal	1

Table S2. Count of articles included in our analysis, by journal

Journal Title	Total Citations from Select Journals
The Review of Corporate Finance Studies	308
International Journal of Production Research	222
IEEE Access	214
Foods	209
Journal of Business Research	132
International Journal of Sociology and Social Policy	95
Sustainability	84
International Journal of Information Management	79
International Journal of Environmental Research and Public Health	73
Journal of International Business Policy	67
Science of The Total Environment	65
Resources, Conservation and Recycling	56
Environment, Development and Sustainability	50
Journal of Risk Research	50
The Journal of Rural Health	48
International Journal of Logistics Research and Applications	46
Asian Business & Management	40
IEEE Internet of Things Journal	32
Applied Energy	30
International Journal of Operations and Production Management	26
International Journal of Operations & Production Management	25
Canadian Journal of Agricultural Economics	22
Environmental and resource Economics	22
nternational Review of Financial Analysis	20
International Journal of Economics and Financial Issues	16
Journal of Risk and Financial Management	16
The European Journal of Development Research	16
Gynecology and Obstetrics	14
International Journal of Pervasive Computing and Communications	14
Journal of Manufacturing Systems	14
Environment, Development & Sustainability	13
Journal of Cleaner Production	11
Journal of Supply Chain Management	11
Med	11

Journal of Marketing Education	10
Social Sciences & Humanities Open	10
International Journal of Infectious Diseases	9
Journal of Air Transport Management	9
Journal of Manufacturing and Materials Processing	9
Tourism Management Perspectives	9
Journal of Financial Regulation	8
International Journal of Financial Research	7
Tijdschrift voor Economische en Sociale Geografie	7
Agricultural Systems	6
International Journal of Research in Business and Social Science	6
Sport in Society	6
International Journal of Urban Sciences	5
Accounting, Auditing & Accountability Journal	5
Journal of Health Management	5
Sci	5
Horn of Africa Journal of Business and Economics (HAJBE)	4
International Journal of Organizational Innovation	4
Journal of Knowledge Management	4
Sustainability	4
World Development	4
International Journal of Productivity and Performance Management	3
Iranian Journal of Aquatic Animal Health	3
Management & Marketing	3
WSEAS Transactions on Business and Economics	3
Annals of Tourism Research	2
Biomass and Bioenergy	2
Business and Economic Research	2
Global Journal of Flexible Systems Management	2
IJRAR	2
International Business Review	2
International Journal of Intelligent Information Systems	2
Journal of Industrial Information Integration	2
New Space*	2
Operations Management Research	2
Pure and Applied Biology	2
Transportation Research Part E: Logistics and Transportation Review	2
International Journal of Business and Management Future	1
Agribusiness	1

AgriGenderJournal of Gender, Agriculture and Food Security	1
Australiasian Accounting, Business and Finance Journal	1
Benchmarking: An International Journal	1
Business and Management Studies	1
Business Excellence and Management	1
Ekonomia i Prawo. Economics and Law	1
Food Ethics	1
Journal of Chinese Economic and Business Studies	1
Journal of International Conference Series	1
Journal of Organization Design	1
Journal of Politics & Governance	1
Journal of Sustainable Tourism	1
Tourism and Hospitality Research	0
2020 International Conference on Decision Aid Sciences and Application (DASA)	0
Agriculturae Conspectus Scientificus	0
BVIMSR's Journal of Management Research; Mumbai	0
East African Scholars Multidisciplinary Bulletin	0
Energies	0
European Journal of Molecular and Clinical Medicine	0
Healthcare	0
Indian Journal of Extension Education	0
International Journal of Business Ecosystem & Strategy	0
International Journal of Contemporary Hospitality Management	0
International Journal of Hospitality Management	0
International Journal of Innovative Science and Research Technology	0
International Journal of Multicultural and Multireligious Understanding	0
International Journal of Oil of Palm	0
International Journal of Physical Distribution & Logistics Management	0
International Journal of Supply and Operations Management	0
International Tax Review	0
Journal of Agricultural & Food Industrial Organization	0
Journal of Contemporary Issues in Business and Government	0
Journal of Economics and Business	0
Journal of Science and Technology Policy Management	0
Knowledge and Process Management	0
Management of Environmental Quality	0
Management Research	0
Managerial and Decision Economics	0
OMICS: A Journal of Integrative Biology	0

Operations Research Perspectives	0
Regional Science Policy & Practice	0
Systems	0
Technological Forecasting and Social Change	0
Technology in Society	0
The Gaze: Journal of Tourism and Hospitality	0
The International Spectator Italian Journal of International Affairs	0
The Journal of Applied Business and Economics	0
The Journal of Asian Finance, Economics and Business	0
The Strategic Journal of Business & Change Management	0
Turkish Journal of Computer and Mathematics Education	0
World's Poultry Science Journal	0
ZoneModa Journal	0
East Asian Economic Review	0
European Journal of Research and Reflection in Management Sciences	0
Financial Innovation	0
Journal of Public Value and Administrative Insight	0
Procedia CIRP	0
Research Journal of Textile and Apparel	0
Grand Total	**2337**

Note: This Grand Total is summation of number of citations derived from the selected journals.

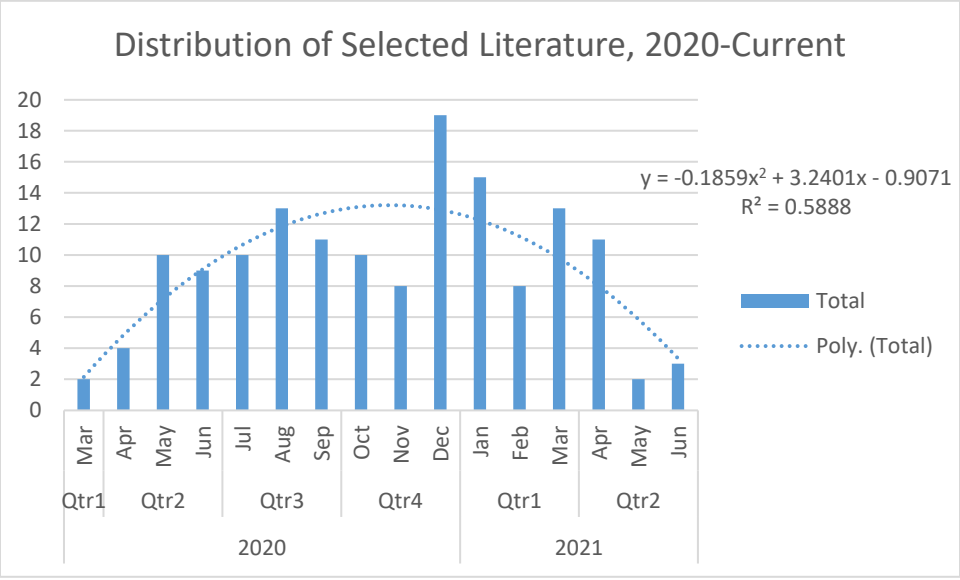


Figure S1. Distribution of select literature, 2020-current

Table S3. Frequency of key word concept occurrence in select literature, 2020-1st Half 2021

Frequency of Occurrence of Concepts – Key Words

Category	Selection %	Number Docs
covid	69.85294118	95
business fields	29.41176471	40
finance	29.41176471	40
economy	21.32352941	29
chain	19.85294118	27
economics	13.23529412	18
sustainability	12.5	17
digitalization	10.29411765	14
strategies	9.558823529	13
digitization	8.088235294	11
geographical location	7.352941176	10
business	6.617647059	9
resilience	5.882352941	8
asia	5.147058824	7
crisis	5.147058824	7
food	5.147058824	7
globalisation	5.147058824	7
social	5.147058824	7
technology	5.147058824	7
health	4.411764706	6
model	4.411764706	6
manufacturing	3.676470588	5
policy	3.676470588	5
supply	3.676470588	5
trade	3.676470588	5
culture	2.941176471	4
value	2.941176471	4
wealth	2.941176471	4
pandemics	2.205882353	3
perspective	2.205882353	3
privacy	2.205882353	3
sdgs	2.205882353	3
opportunities	1.470588235	2

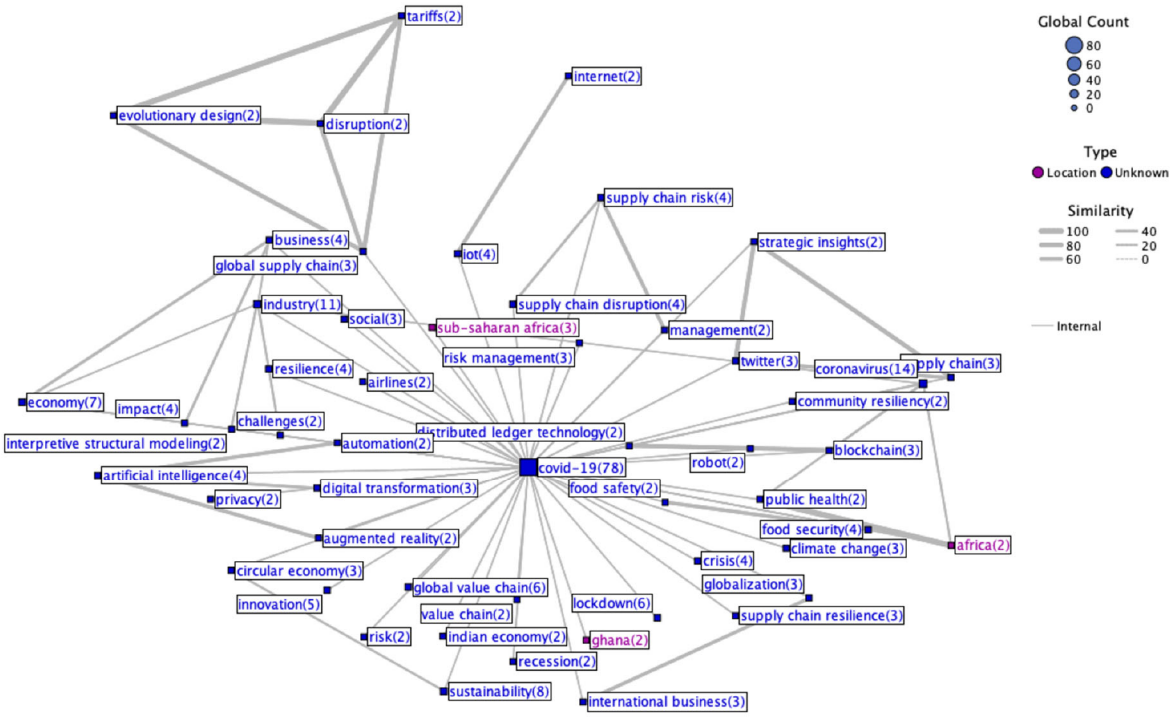


Figure S2. Key Words concept network.

Table S4. Frequency of occurrence of abstract term concepts.

Frequency of Occurrence of Concepts - Abstract		
Category	Selection %	Number Docs
covid	73.6486486	109
academics	66.2162162	98
economics	52.027027	77
measuring instrument	40.5405405	60
chains	35.8108108	53
economy	35.1351351	52
industry	35.1351351	52
impact	33.7837838	50
virus	30.4054054	45
education training and development	28.3783784	42
asia	27.027027	40
work	27.027027	40
results	26.3513514	39
careers	24.3243243	36
model	24.3243243	36
data	23.6486486	35
policies	22.2972973	33
occupation	18.9189189	28
administrator	14.8648649	22
food	14.1891892	21
disease	13.5135135	20
humans	12.1621622	18
enterprises	9.45945946	14
resilience	9.45945946	14
africa	6.08108108	9
region	5.40540541	8

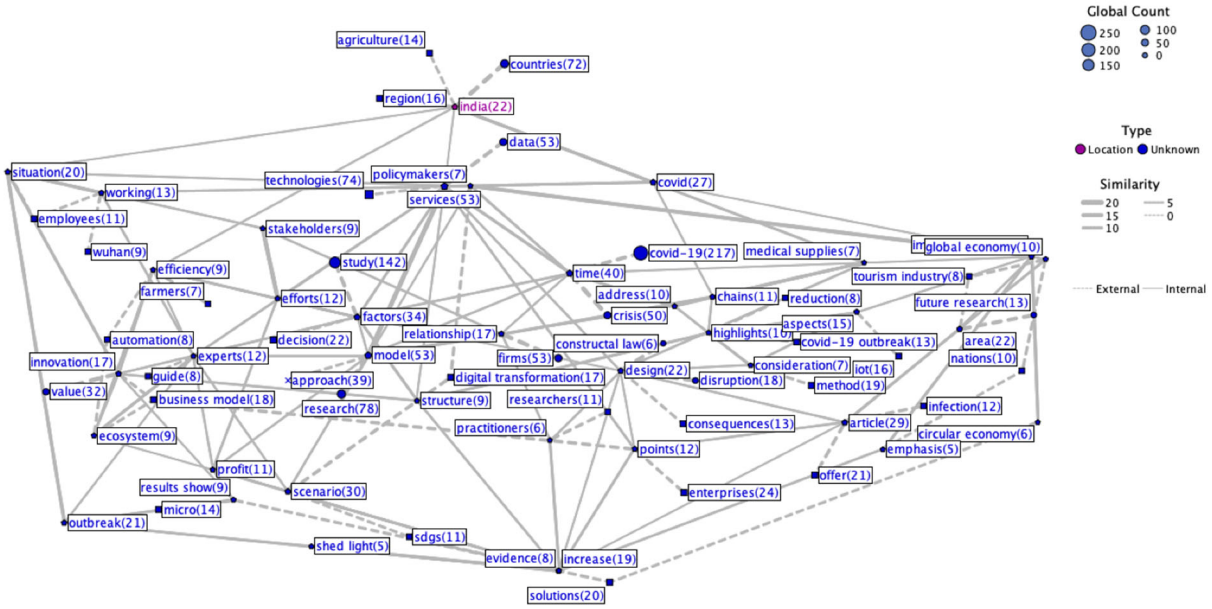


Figure S3. Concept network 1 for Artificial Intelligence concept cluster.

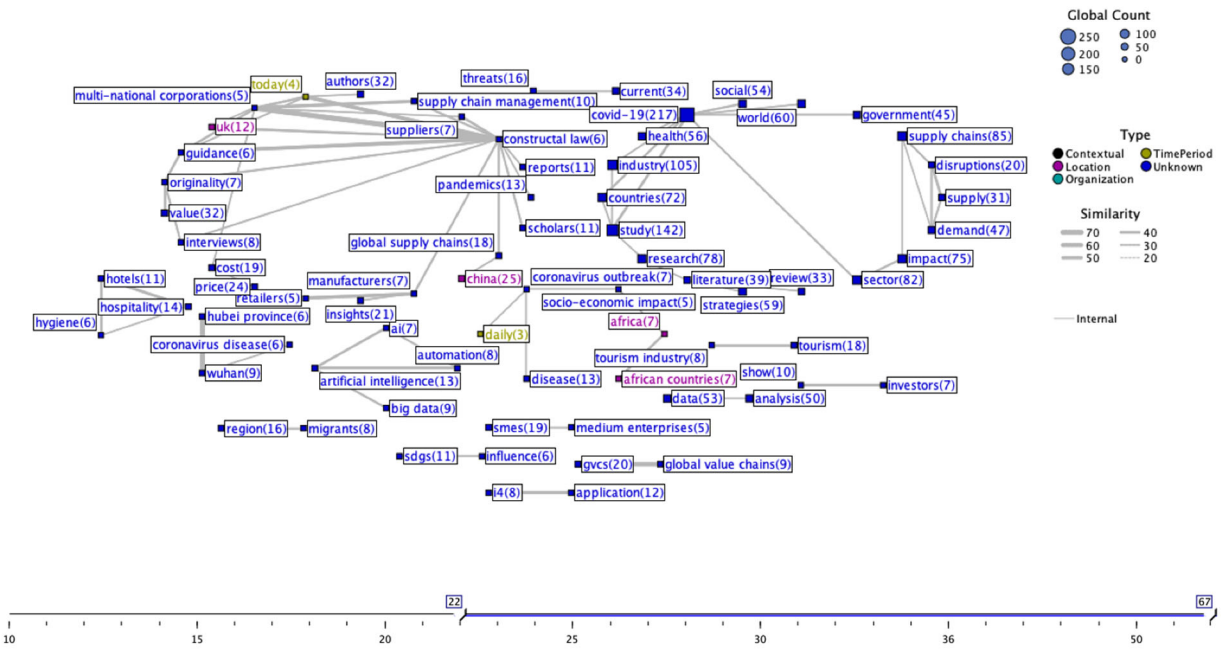


Figure S4. All concepts network, delimited to ties 22% and greater.

Experimental Parameter Settings for IBM SPSS Modeler

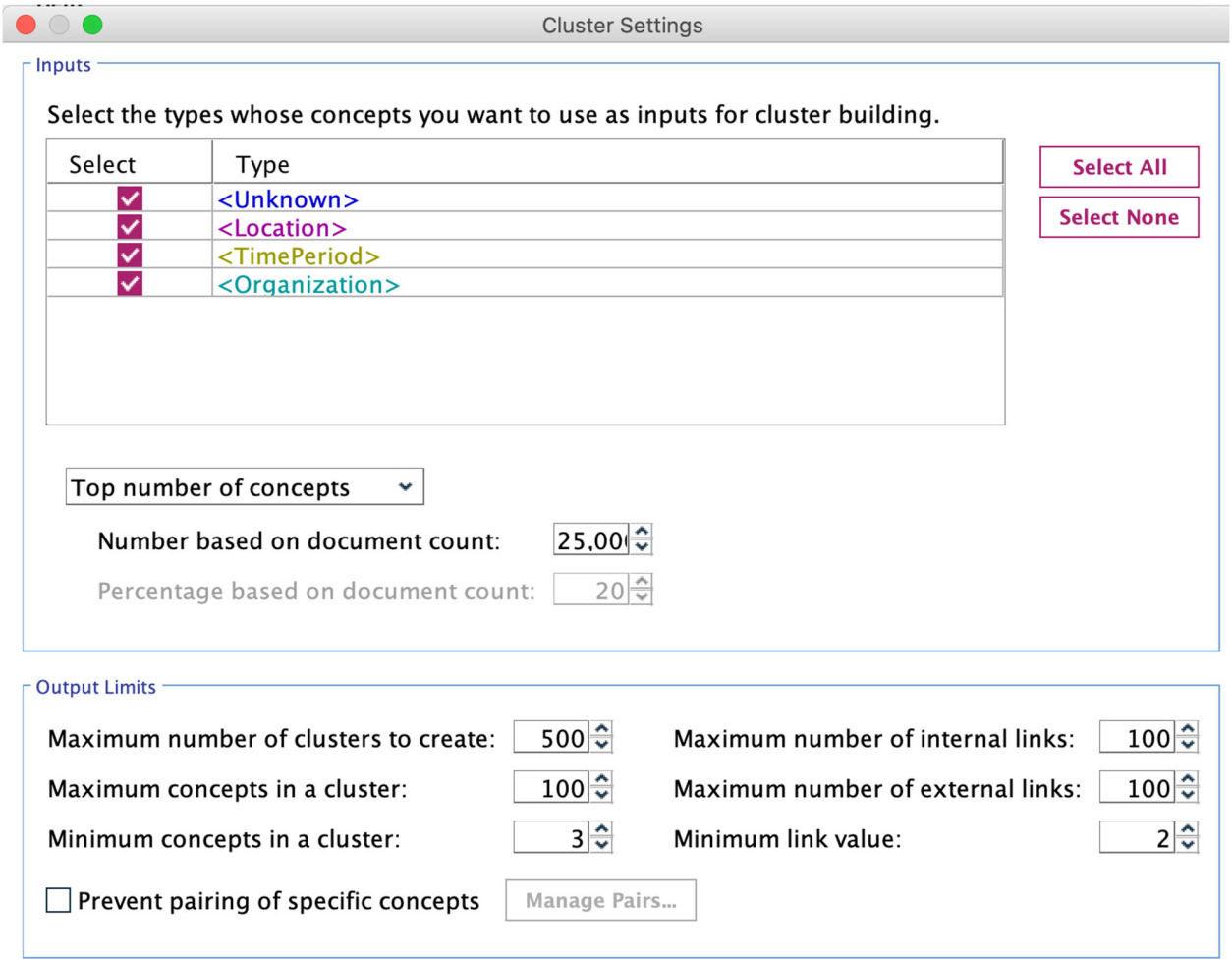


Figure S5. SPSS Modeler settings used in this analysis

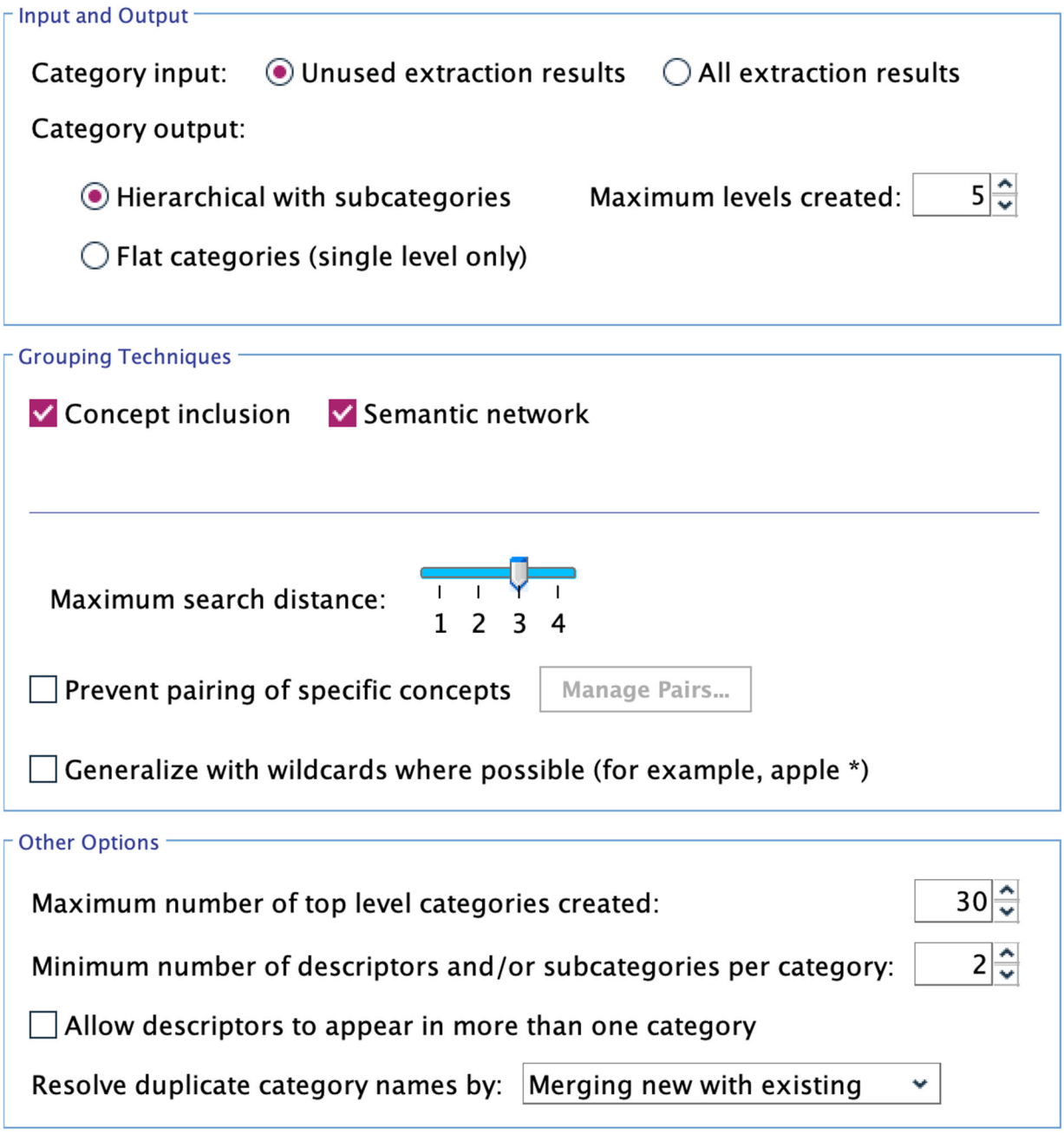


Figure S6. SPSS Modeler settings used in this analysis

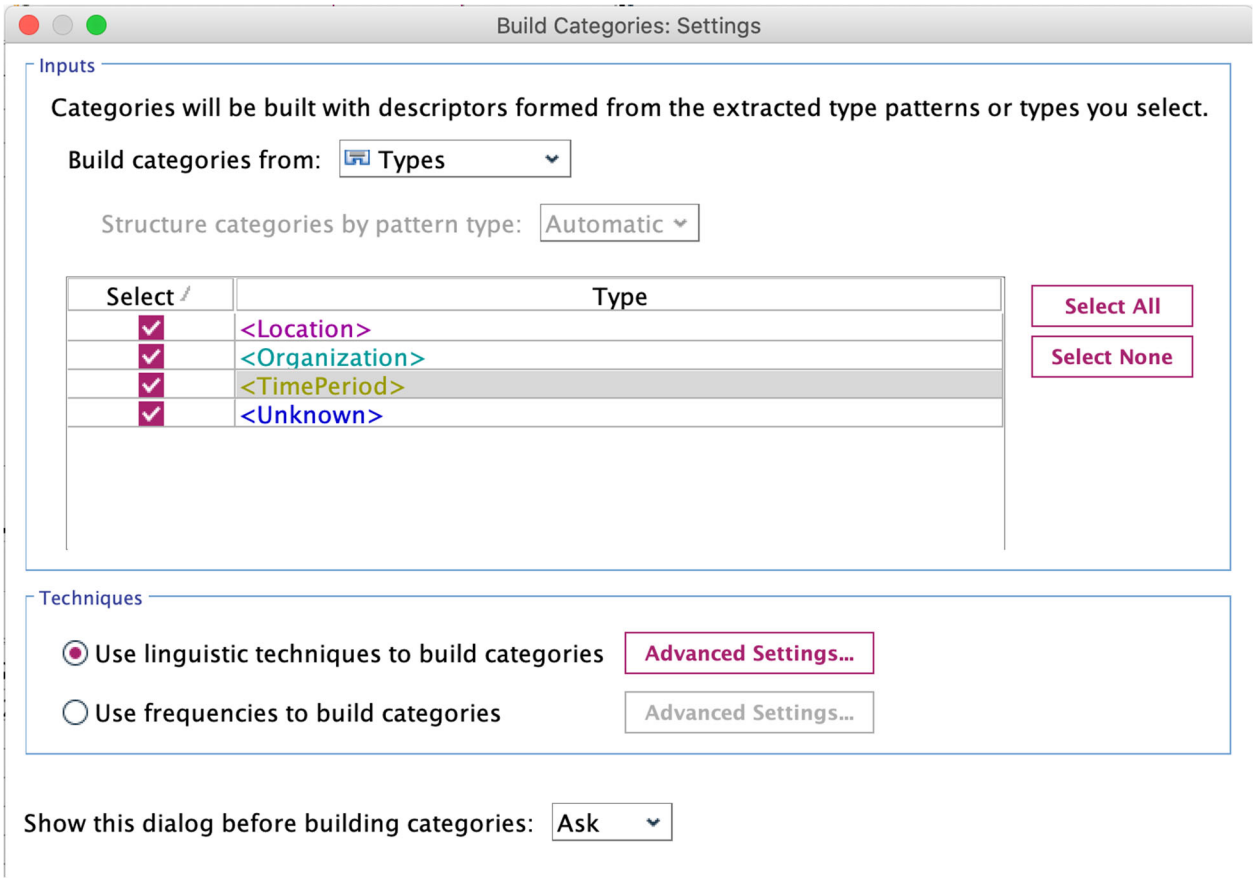


Figure S7. SPSS Modeler settings used in this analysis

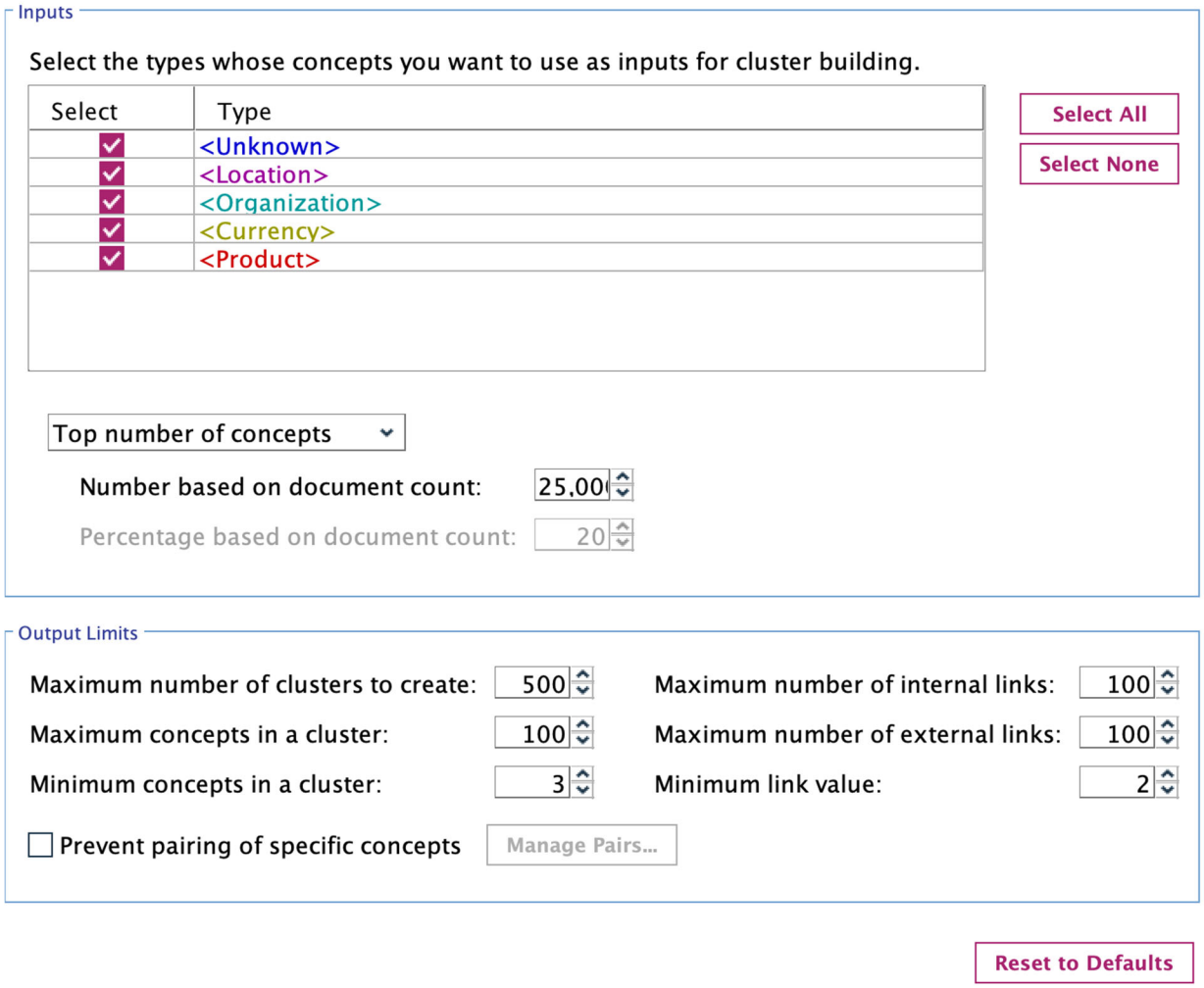


Figure S8. SPSS Modeler settings used in this analysis

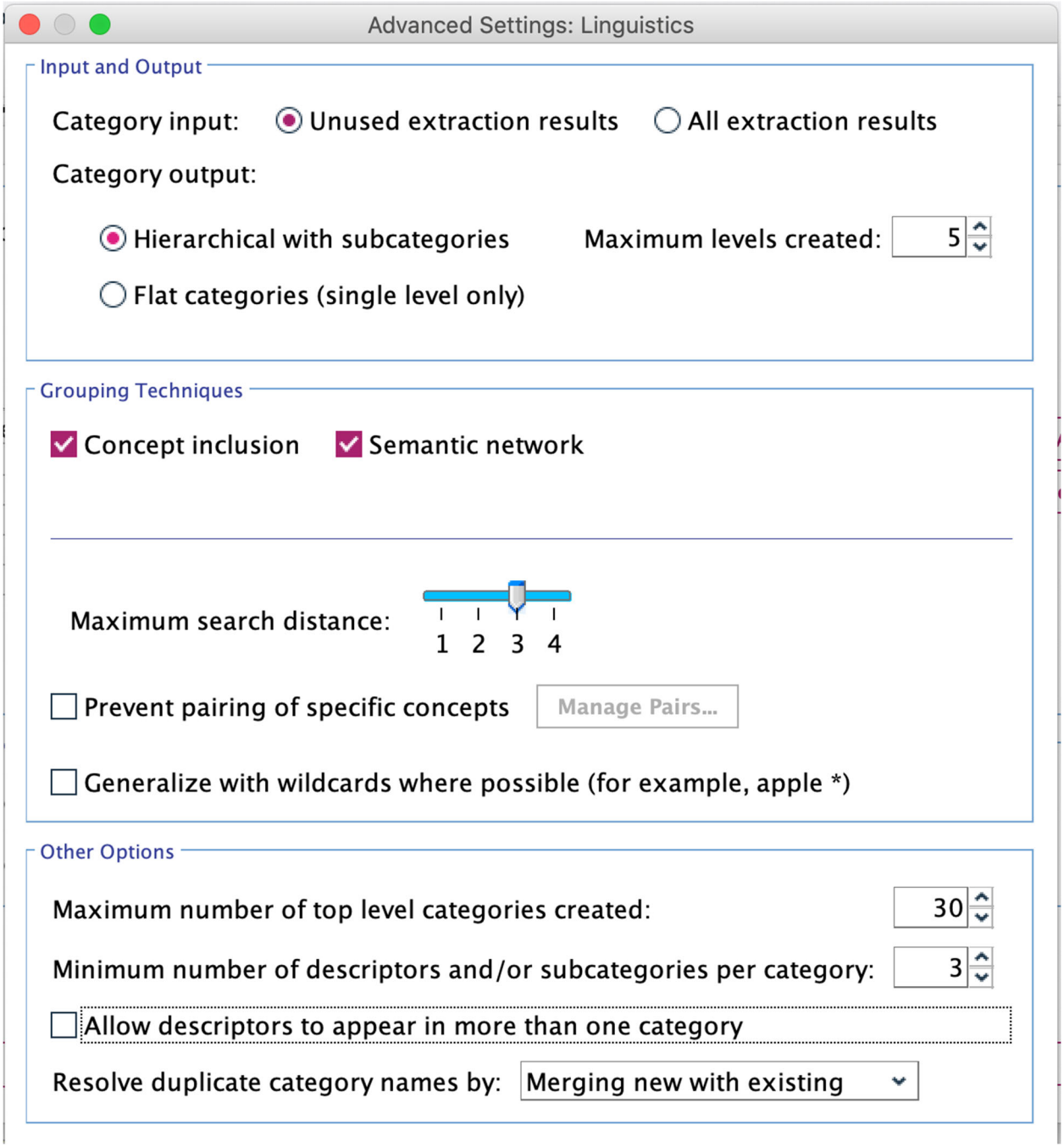


Figure S9. SPSS Modeler settings used in this analysis

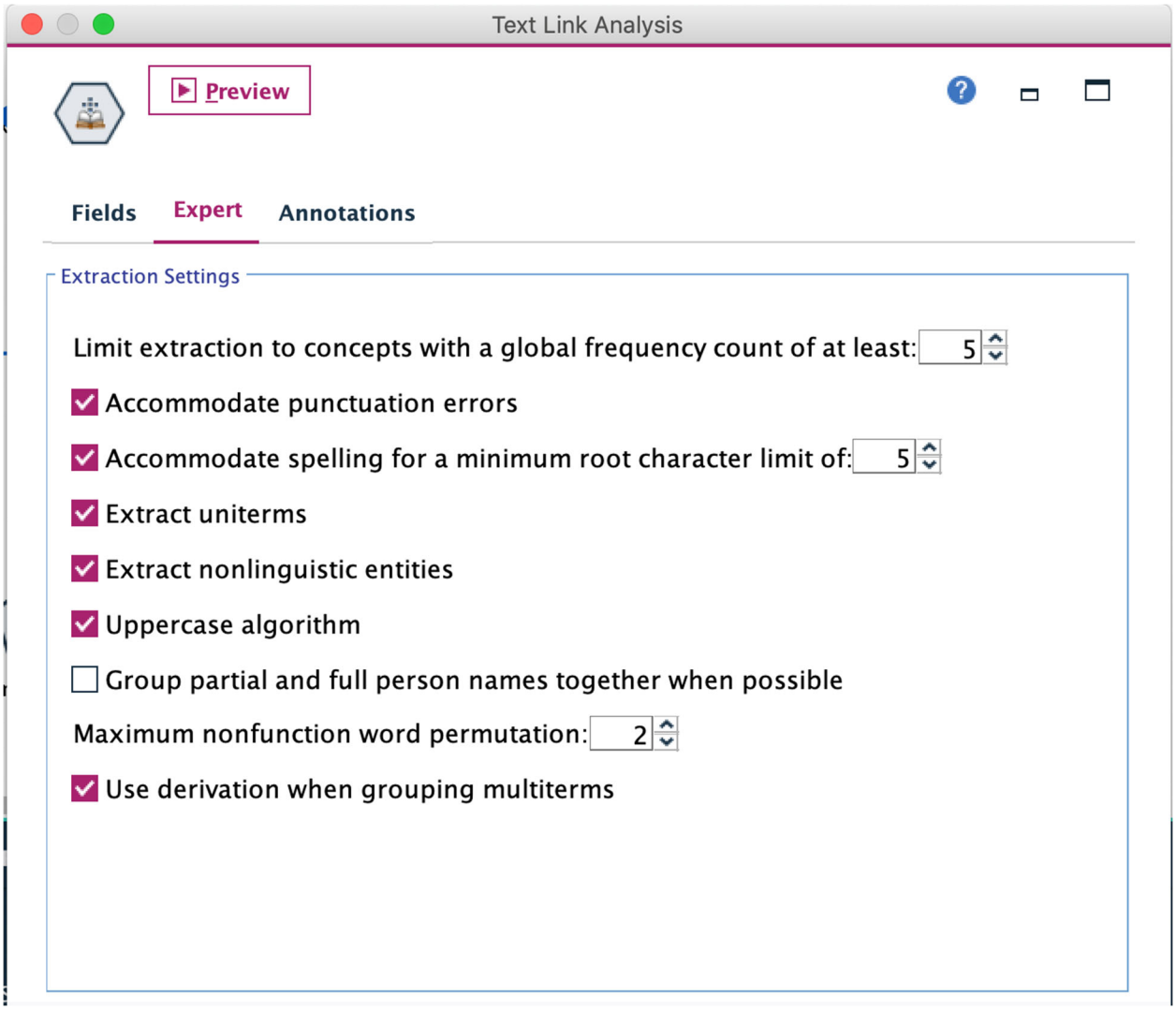


Figure S10. SPSS Modeler settings used in this analysis