JADT' 18

PROCEEDINGS OF THE
14TH INTERNATIONAL CONFERENCE
ON STATISTICAL ANALYSIS OF TEXTUAL DATA

JADT' 18

PROCEEDINGS OF THE
14TH INTERNATIONAL CONFERENCE
ON STATISTICAL ANALYSIS OF TEXTUAL DATA

(Rome, 12-15 June 2018)

Vol. I

UniversItalia
2018

PROPRIETÀ LETTERARIA RISERVATA
Copyright 2018 - UniversItalia - Roma
ISBN 978-88-3293-137-2

A norma della legge sul diritto d'autore e del codice civile è vietata la riproduzione di questo libro o di parte di esso con qualsiasi mezzo, elettronico, meccanico, per mezzo di fotocopie, microfilm, registra-tori o altro. Le fotocopie per uso personale del lettore possono tuttavia essere effettuate, ma solo nei limiti del 15% del volume e dietro pagamento alla SIAE del compenso previsto dall'art. 68, commi 4 e 5 della legge 22 aprile 1941 n. 633. Ogni riproduzione per finalità diverse da quelle per uso personale deve essere autorizzata specificatamente dagli autori o dall'editore.

Program Committee

Ramón Álvarez Esteban: Univ. of León, E
Valérie Beaudouin: Telecom ParisTech, F
Mónica Bécue: Poly. Univ. of Catalunya, E
Sergio Bolasco: Sapienza Univ. of Rome, I
Isabella Chiari: Sapienza Univ. of Rome, I
François Daoust, UQÀM, Montreal, CDN
Anne Dister, FUSL, Bruxelles / UCL, Louvain, B
Jules Duchastel: UQÀM, Montreal, CDN
Serge Fleury: Univ. Paris 3, F
Cédrick Fairon: UCL, Louvain, B
Luca Giuliano: Sapienza Univ. of Rome, I
Serge Heiden, ENS, Lyon, F
Domenica Fioredistella Iezzi, Univ. of Tor Vergata, I
Margareta Kastberg, Univ. of Franche Comté, F
Ludovic Lebart: CNRS / ENST, Paris, F
Jean-Marc Leblanc: Univ. of Créteil, F
Alain Lelu: Univ. of Franche Comté, F
Dominique Longrée, Univ. of Liège, B
Véronique Magri: Univ. of Nice Sophia-Antipolis, F
Pascal Marchand: Univ. of Toulouse, F
William Martinez: Univ. of Lisboa, P
Damon Mayaffre: CNRS, Nice, F
Sylvie Mellet: CNRS, Nice, F
Michelangelo Misuraca: Univ. of Calabria, I
Denis Monière: Univ. of Montréal, CDN
Bénédicte Pincemin: CNRS, Lyon, F
Céline Poudat: Univ. of Nice Sophia-Antipolis, F
Pierre Retinaud: Univ. of Tolouse, F
André Salem: Univ. Paris 3, F
Monique Slodzian: Inalco, F
Arjuna Tuzzi: Univ. of Padua, I
Mathieu Valette: Inalco, F

Organising Committee

Domenica Fioredistella Iezzi: Univ. of Tor Vergata, I
Sergio Bolasco: Sapienza Univ. of Rome, I
Livia Celardo: Sapienza Univ. of Rome, I
Isabella Chiari: Sapienza Univ. of Rome, I
Francesca della Ratta: ISTAT, I
Fiorenza Deriu: Sapienza Univ. of Rome, I
Francesca Dolcetti: Sapienza Univ. of Rome, I
Andrea Fronzetti Colladon: Univ. of Tor Vergata, I
Francesca Greco: Sapienza Univ. of Rome, I
Isabella Mingo: Sapienza Univ. of Rome, I
Michelangelo Misuraca: Univ. of Calabria, I
Arjuna Tuzzi: Univ. of Padua, I
Maurizio Vichi: Sapienza Univ. of Rome, I
Francesco Zarelli: ISTAT, I

Local Organisation

Francesco Alò, Giulia Giacco,
Paolo Meoli, Vittorio Palermo, Viola Talucci

Table of contents

Introduction XVII

Acknowledgements XIX

Invited Speakers

GERMAN KRUSZEWSKI
Memorize or generalize? Searching for a compositional RNN in a haystack
Adam Liška XXIII
BING LIU
Scaling-up Sentiment Analysis through Continuous Learning XXIV
PASCAL MARCHAND
La textométrie comme outil d'expertise :
application à la négociation de crise. XXV
GEORGE K. MIKROS
Author Identification Combining Various Author Profiles. Towards a Blended Authorship Attribution Methodology XXVI
ROBERTO NAVIGLI
From text to concepts and back: going multilingual
with BabelNet in a step or two XXVII

Contributors

MOTASEM ALRAHABI[1], CHIARA MAINARDI1
Identification automatique de l'ironie et des formes apparentées dans un corpus de controverses théâtrales 1
MOHAMMAD ALSADHAN, SASCHA DIWERSY,
AGATA JACKIEWICZ, GIANCARLO LUXARDO
Migrants et réfugiés : dynamique de la nomination de l'étranger 10
R. ALVAREZ-ESTEBAN, M. BÉCUE-BERTAUT, B. KOSTOV, F. HUSSON, J-A SÁNCHEZ-ESPIGARES
Xplortext, a R package. Multidimensional statistics for textual data science. 19
ELENA, AMBROSETTI, ELEONORA MUSSINO, VALENTINA TALUCCI
L'evoluzione delle norme: analisi testuale delle politiche sull'immigrazione in Italia 26

MASSIMO ARIA, CORRADO CUCCURULLO
A bibliometric meta-review of performance measurement, appraisal, management research 35
LAURA ASCONE
Textual Analysis of Extremist Propaganda and Counter-Narrative: a quanti-quali investigation 44
LAURA ASCONE, LUCIE GIANOLA
Analyse de données textuelles appliquée à des problématiques de sécurité et d'enquête judiciaire 52
SIMONA BALBI, MICHELANGELO MISURACA, MARIA SPANO
A two-step strategy for improving categorisation of short texts 60
CHRISTINE BARATS, ANNE DISTER, PHILIPPE GAMBETTE, JEAN-MARC LEBLANC, MARIE PERES
Appeler à signer une pétition en ligne : caractéristiques linguistiques des appels 68
MANUEL BARBERA, CARLA MARELLO
Newsgroup e lessicografia: dai NUNC al VoDIM 76
IGNAZIA BARTHOLINI
Techniques for detecting the normalized violence in the perception of refugee / asylum seekers between lexical analysis and factorial analysis..... 83
PATRIZIA BERTINI MALGARINI, MARCO BIFFI, UGO VIGNUZZI
Dal corpus al dizionario: prime riflessioni lessicografiche sul Vocabolario storico della cucina italiana postunitaria (VoSCIP) 90
MARCO BIFFI
Strumenti informatico-linguistici per la realizzazione di un dizionario dell'italiano postunitario 99
ANNICK FARINA, RICCARDO BILLERO
Comparaison de corpus de langue « naturelle » et de langue « de traduction » : les bases de données textuelles LBC, un outil essentiel pour la création de fiches lexicographiques bilingues..... 108
FELICE BISOGNI, STEFANO PIRROTTA
Il rapporto tra famiglie di anziani non autosufficienti e servizi territoriali: un'analisi dei dati esploratoria con l'Analisi Emozionale del Testo (AET).... 117
ANTONELLA BITETTO, LUIGI BOLLANI
Esperienza di analisi testuale di documentazione clinica e di flussi informativi sanitari, di utilità nella ricerca epidemiologica e per indagare la qualità dell'assistenza..... 126
GUIDO BONINO, DAVIDE PULIZZOTTO, PAOLO TRIPODI
Exploring the history of American philosophy in a computer-assisted framework 134

MARC-ANDRE BOUCHARD, SYLVIA KASPARIAN
La classification hiérarchique descendante pour l'analyse des représentations sociales dans une pétition antibilinguisme au Nouveau-Brunswick, Canada 142
LIVIA CELARDO, RITA VALLEROTONDA, DANIELE DE SANTIS,CLAUDIO SCARICI, ANTONIO LEVA
Analysing occupational safety culture through mass media monitoring..... 150
BARBARA CORDELLA, FRANCESCA GRECO, PAOLO MEOLI,VITTORIO PALERMO, MASSIMO GRASSO
Is the educational culture in Italian Universities effective? A case study..... 157
MICHELE A. CORTELAZZO, GEORGE K. MIKROS, ARJUNA TUZZI
Profiling Elena Ferrante: a Look Beyond Novels 165
FABRIZIO DE FAUSTI, MASSIMO DE CUBELLIS, DIEGO ZARDETTO[1]
Word Embeddings: a Powerful Tool for Innovative Statistics at Istat 174
Gibbons A. (1985). *Algorithmic Graph Theory*. Cambridge University Press. . 182
VIVIANA DE GIORGI, CHIARA GNESI
Analisi di dati d'impresa disponibili online: un esempio di data science tratto dalla realtà economica dei siti di e-commerce 183
ALESSANDRO CAPEZZUOLI, FRANCESCA DELLA RATTA, STEFANIA MACCHIA,MANUELA MURGIA, MONICA SCANNAPIECO, DIEGO ZARDETTO
The use of textual sources in Istat: an overview..... 192
FRANCESCA DELLA RATTA, GABRIELLA FAZZI, MARIA ELENA PONTECORVO, CARLO VACCARI, ANTONINO VIRGILLITO
Twitter e la statistica ufficiale: il dibattito sul mercato del lavoro 200
SAMI DIAF
Gauging An Author's Mood Using Hidden Markov Chains 209
MARC DOUGUET
Les hémistiches répétés 215
FRANCESCA DRAGOTTO, SONIA MELCHIORRE
«Mangiata dall'orco e tradita dalle donne». Vecchi e nuovi media raccontano la vicenda di Asia Argento, tra storytelling e Speech Hate 223
CRISTIANO FELACO, ANNA PAROLA
Il *cosa* e il *come* del processo narrativo. L'uso combinato della Text Analysis e Network Text Analysis al servizio della precarietà lavorativa 233
ANA NORA FELDMAN
Hablando de crisis: las comunicaciones del Fondo Monetario Internacional242
VALERIA FIASCO
Brexit in the Italian and the British press:
a bilingual corpus-driven analysis 250
VIVIANA FINI, GIUSEPPE LUCIO GAETA, SERGIO SALVATORE
Textual analysis to promote innovation within public policy evaluation 259

ALESSIA FORCINITI, SIMONA BALBI
A proposal for Cross-Language Analysis: violence against women and the Web 268
BEATRICE FRACCHIOLLA, OLINKA SOLENE DE ROGER
La verbalisation des émotions 276
LUISA FRANCHINA, FRANCESCA GRECO, ANDREA LUCARIELLO, ANGELO SOCAL, LAURA TEODONNO
Improving Collection Process for Social Media Intelligence: A Case Study . 285
ANDREA FRONZETTI COLLADON, JOHANNE SAINT-CHARLES, PIERRE MONGEAU
The impact of language homophily and similarity of social position on employees' digital communication 293
MATTEO GERLI
Looking Through the Lens of Social Sciences: The European Union in the EU-Funded Research Projects Reporting 300
LUCIE GIANOLA, MATHIEU VALETTE
Spécialisation générique et discursive d'une unité lexical L'exemple de *joggeuse* dans la presse quotidienne régionale 312
PETER A. GLOOR, JOAO MARCOS DE OLIVEIRA, DETLEF SCHODER
The Transparency Engine – A Better Way to Deal with Fake News 319
FRANCESCA GRECO, LEONARDO ALAIMO, LIVIA CELARDO
Brexit and Twitter: The voice of people..... 327
FRANCESCA GRECO, GIULIO DE FELICE, OMAR GELO
A text mining on clinical transcripts of good and poor outcome psychotherapies 335
FRANCESCA GRECO, DARIO MASCHIETTI, ALESSANDRO POLLI
DOMINIO: A Modular and Scalable Tool for the Open Source Intelligence 343
LEONIE GRÖN, ANN BERTELS, KRIS HEYLEN
Is training worth the trouble? A PoS tagging experiment with Dutch clinical records..... 351
FRANCE GUERIN-PACE, ELODIE BARIL
Les outils de la statistique textuelle pour analyser les corpus de données d'enquêtes de la statistique publique..... 359
SERGE HEIDEN
Annotation-based Digital Text Corpora Analysis within the TXM Platform 367
DANIEL HENKEL
Quantifying Translation : an analysis of the conditional perfect in English-French comparable-parallel corpus..... 375
DANIEL DEVATMAN HROMADA
Extraction of lexical repetitive expressions from complete works of William Shakespeare..... 384

OLIVIER KRAIF, JULIE SORBA
Spécificités des expressions spatiales et temporelles dans quatre sous-genres romanesques (policier, science-fiction, historique et littérature générale) 392
CYRIL LABBE, DOMINIQUE LABBE
Les phrases de Marcel Proust 400
LUDOVICA LANINI, MARÍA CARLOTA NICOLÁS MARTÍNEZ
Verso un dizionario *corpus-based* del lessico dei beni culturali: procedure di estrazione del lemmario 411
DANIELA LARICCHIUTA, FRANCESCA GRECO, FABRIZIO PIRAS, BARBARA CORDELLA, DEBORA CUTULI, ELEONORA PICERNI, FRANCESCA ASSOGNA, CARLO LAI, GIANFRANCO SPALLETTA, LAURA PETROSINI
"The grief that doesn't speak": Text Mining and Brain Structure 419
GEVISA LA ROCCA, CIRUS RINALDI
Icone gay: tra processi di normalizzazione e di resistenza. Ricostruire la semantica degli hashtag..... 428
LUDOVIC LEBART
Looking for *topics*: a brief review..... 436
GAËL LEJEUNE, LICHAO ZHU
Analyse Diachronique de Corpus : le cas du poker..... 444
JULIEN LONGHI, ANDRE SALEM
Approche textométrique des variations du sens..... 452
LAURENT VANNI[1], DAMON MAYAFFRE, DOMINIQUE LONGREE
ADT et deep learning, regards croisés. Phrases-clefs, motifs et nouveaux observables..... 459
LUCIE LOUBERE
Déconstruction et reconstruction de corpus... À la recherche de la pertinence et du contexte..... 467
HEBA METWALLY
L'apport du *corpus-maquette* à la mise en évidence des niveaux descriptifs de la chronologie du sens. Essai sur une Série Textuelle Chronologique du *Monde diplomatique* (1990-2008). 474
JUN MIAO, ANDRE SALEM
Séries textuelles homogènes..... 491
SILVIO MIGLIORI, ANDREA QUINTILIANI, DANIELA ALDERUCCIO, FIORENZO AMBROSINO, ANTONIO COLAVINCENZO, MARIALUISA MONGELLI, SAMUELE PIERATTINI, GIOVANNI PONTI SERGIO BOLASCO, FRANCESCO BAIOCCHI, GIOVANNI DE GASPERIS
TaLTaC in ENEAGRID Infrastructure..... 501
ISABELLA MINGO, MARIELLA NOCENZI
The dimensions of Gender in the International Review of Sociology. A lexicometric approach to the analysis of the publications in the last twenty years 509

ADIEL MITTMANN, ALCKMAR LUIZ DOS SANTOS
The Rhythm of Epic Verse in Portuguese From the 16th to the 21st Century514
DENIS MONIERE, DOMINIQUE LABBE
Le vocabulaire des campagnes électorales 522
CYRIELLE MONTRICHARD
Faire émerger les traces d'une pratique imitative dans la presse de tranchées à l'aide des outils textométriques 532
ALBERT MORALES MORENO
Evolución diacrónica de la terminología y la fraseología jurídico-administrativa en los Estatutos de autonomía de Catalunya de 1932, 1979 y 2006 541
CEDRIC MOREAU
Comment penser la recherche d'un signe pour une plateforme multilingue et multimodale français écrit / langue des signes française ? 556
JEAN MOSCAROLA, BORIS MOSCAROLA
Conclusion ADT et visualisation, pour une nouvelle lecture des corpus Les débats de 2ème tour des Présidentielles (1974-2017) 563
MAURIZIO NALDI
A conversation analysis of interactions in personal finance forums 571
STEFANO NOBILE
Analisi testuale, rumore semantico e peculiarità morfosintattiche: problemi e strategie di pretrattamento di corpora speciali..... 578
DANIEL PELISSIER
L'individu dans le(s) groupe(s) : focus group et partitionnement du corpus 586
BENEDICTE PINCEMIN, CELINE GUILLOT-BARBANCE, ALEXEI LAVRENTIEV
Using the First Axis of a Correspondence Analysis as an Analytical Tool. Application to Establish and Define an Orality Gradient for Genres of Medieval French Texts 594
CELINE POUDAT
Explorer les désaccords dans les fils de discussion du Wikipédia francophone 602
MATTHIEU QUIGNARD, SERGE HEIDEN, FREDERIC LANDRAGIN, MATTHIEU DECORDE
Textometric Exploitation of Coreference-annotated Corpora with TXM: Methodological Choices and First Outcomes 610
PIERRE RATINAUD
Amélioration de la précision et de la vitesse de l'algorithme de classification de la méthode Reinert dans IRaMuTeQ 616

LUISA REVELLI
Il parametro della *frequenza* tra paradossi e antinomie: il caso dell'*italiano scolastico* 626
PIERGIORGIO RICCI
How Twitter emotional sentiments mirror on the Bitcoin transaction network 635
CHANTAL RICHARD, SYLVIA KASPARIAN
Analyse de contenu versus méthode Reinert : l'analyse comparée d'un corpus bilingue de discours acadiens et loyalistes du N.-B., Canada 643
VALENTINA RIZZOLI, ARJUNA TUZZI
Bridge over the ocean: Histories of social psychology in Europe and North America. An analysis of chronological corpora 651
LOUIS ROMPRE, ISMAÏL BISKRI
Les « itemsets fréquents » comme descripteurs de documents textuels 659
CORINNE ROSSARI, LJILJANA DOLAMIC, ANNALENA HÜTSCH, CLAUDIA RICCI, DENNIS WANDEL
Discursive Functions of French Epistemic Adverbs: What can Correspondence Analysis tell us about Genre and Diachronic Variation? 668
VANESSA RUSSO, MARA MARETTI, LARA FONTANELLA, ALICE TONTODIMAMMA
Misleading information in online propaganda networks 676
ELIANA SANANDRES, CAMILO MADARIAGA, RAIMUNDO ABELLO
Topic modeling of Twitter conversations 684
FRANCESCO SANTELLI, GIANCARLO RAGOZINI, MARCO MUSELLA
What volunteers do? A textual analysis of voluntary activities in the Italian context 692
S. SANTILLI, S. SBALCHIERO, L. NOTA, S. SORESI
A longitudinal textual analysis of abstract presented at Italian Association for Vocational guidance and Career Counseling' Conferences from 2002 to 2017 700
JACQUES SAVOY
A la poursuite d'Elena Ferrante 707
JACQUES SAVOY
Regroupement d'auteurs dans la littérature du XIXe siècle 716
STEFANO SBALCHIERO, ARJUNA TUZZI
What's Old and New? Discovering Topics in the American Journal of Sociology 724
NILS SCHAETTI, JACQUES SAVOY
Comparison of Neural Models for Gender Profiling 733
LIONEL SHEN
Segments répétés appliqués à l'extraction de connaissances trilingues 740

SANDRO STANCAMPIANO
Misurare, Monitorare e Governare le città con i Big Data 748
FADILA TALEB, MARYVONNE HOLZEM
Exploration textométrique d'un corpus de motifs juridiques dans le droit international des transports 755
JAMES M. TEASDALE
The Framing of the Migrant: Re-imagining a Fractured Methodology in the Context of the British Media. 763
MARJORIE TENDERO[1], CECILE BAZART
Results from two complementary textual analysis software (Iramuteq and Tropes) to analyze social representation of contaminated brownfields 771
MATTEO TESTI, ANDREA MERCURI, FRANCESCO PUGLIESE
Multilingual Sentiment Analysis..... 780
JUAN MARTÍNEZ TORVISCO
A linguistic analysis of the image of immigrants' gender in Spanish newspapers..... 788
FRANCESCO URZÌ
Lo strano caso delle frequenze zero nei testi legislativi euroistituzionali..... 796
SYLVIE VANDAELE
Les traductions françaises de *The Origin of Species* : pistes lexicométriques . 805
PIERRE WAVRESKY, MATTHIEU DUBOYS DE LABARRE, JEAN-LOUP LECOEUR
Circuits courts en agriculture : utilisation de la textométrie dans le traitement d'une enquête sur 2 marchés 814
MARIA ZIMINA, NICOLAS BALLIER
On the phraseology of spoken French: initial salience, prominence and lexicogrammatical recurrence in a prosodic-syntactic treebank *Rhapsodie*.... 822

Abstracts

FILIPPO CHIARELLO, GUALTIERO FANTONI, ANDREA BONACCORSI, SILVIA FARERI
What kind of contributions does research provides? Mapping issue based statements in research abstracts 833
FILIPPO CHIARELLO, GIACOMO OSSOLA, GUALTIERO FANTONI,ANDREA BONACCORSI, ANDREA CIMINO, FELICE DELL'ORLETTA
Technical sentiment analysis: predicting the success of new products using social media..... 835

FIORENZA DERIU, DOMENICA FIOREDISTELLA IEZZI
Citizens and neighbourhood life: mapping population sentiment in Italian cities 837
FRANCESCA DI CARLO, ROSY INNARELLA, BRIZIO LEONARDO TOMMASI
Vax network: profiling influential nodes with social network analysis on twitter 838
DAVIDE DONNA
Alteryx 840
VALERIO FICCADENTI, ROY CERQUETI, MARCEL AUSLOOS
Complexity of US President Speeches 841
PETER A. GLOOR
Measuring the Dynamics of Social Networks with Condor 842
IOLANDA MAGGIO, DOMENICA FIOREDISTELLA IEZZI, MATTEO FATIGHENTI
"BIG DATA" Words Trend Analysis using the multidimensional analysis of texts 844
MARIO MASTRANGELO
Itinerari turistici, network analysis e text mining 845
MARIA FRANCESCA ROMANO, GUIDO REY, ANTONELLA BALDASSARINI PASQUALE PAVONE
Text Mining per l'analisi qualitativa e quantitativa dei dati amministrativi utilizzati dalla Pubblica Amministrazione 847
ALESSANDRO CESARE ROSA
Taglio cesareo e Vbac in Italia al tempo dei Big Data: una proposta di ulteriore contributo informativo 849

Bridge over the ocean: Histories of social psychology in Europe and North America. An analysis of chronological corpora[1]

Valentina Rizzoli, Arjuna Tuzzi
University of Padova – valentina.rizzoli@phd.unipd.it; arjuna.tuzzi@unipd.it

Abstract
Since the European Association of Social Psychology (EASP - initially called European Association of Experimental Social Psychology) has been established in 1966, what was then considered "European" social psychology has been working to affirm its own identity by presenting a distinctive brand to the rest of the world in general and to North America in particular. This study aims to compare European and U.S. social psychology through the analysis of the papers published by two of the main journals in their field: The Journal of Personality and Social Psychology and the European Journal of Social Psychology. All the abstracts (from the first publication to the last one in 2016) of the two journals papers have been collected. By means of a (lexical) correspondence analysis (SPAD software), the existence of a latent temporal pattern in keywords' occurrences was explored. Furthermore, in order to detect, retrieve and compare the main topics the journals dealt with over time, an analysis implemented by means of Reinert's method was conducted (IRaMuTeQ and R software). Results show that even if there are some typical features that distinguish the "European" from the "American" social psychology some publication trends seem to converge. Results will be discussed also reflecting on the contribution of these methods in studying the history/ies of a discipline.

Keywords: diachronic corpora, chronological textual data, text clustering, correspondence analysis, Reinert's method, history of social psychology

1. Introduction

It is widely spread that what is called "the modern social psychology" came from Europe with the migration of scholars during the second world war,

[1]This study is a new development of a an interdisciplinary research project funded by the University of Padova, fund CPDA145940 (2014) "Tracing the History of Words. A Portrait of a Discipline Through Analyses of Keyword Counts in Large Corpora of Scientific Literature" (P.I. Arjuna Tuzzi).

and started to develop mainly in the United States. Moscovici and Markova (2006) referred to an American indigenous tradition that compete with a newer Euro-American tradition, not intending to argue that there was a socio-psychological tradition born in Europe and brought to America; but a genuinely American tradition that began with the work of the immigrant Lewin and his new students. While there was a prosperous development of social psychology in U.S., in Europe there were scholars working on social psychology, but there was no European school (Moscovici, 1999). The establishment of the European Association of (Experimental) Social Psychology (EASP - initially EAESP) in 1966 has been fundamental in the development of a "European" social psychology. EASP represented a distinctive brand of the discipline to the rest of the world in general and to North America in particular, by providing a voice for a more "social" social psychology (http://www.easp.eu/about/?). To consider an "American" and a "European" social psychology as two completely separated and counterpoised entities would be wrong since there was a clear influence between them. Moreover, the first EASP meeting, which fostered the birth of EAESP, was an initiative of U.S. scholars (cf. Moscovici and Markova, 2006). By saying "American" social psychology we usually refer to the indigenous U.S. tradition explicated by Floyd Allport's work in 1924, which considers social psychology as part of general psychology and keeps more attention on the "individual". "European" social psychology usually refers to the Euro-American tradition, promoted by the EASP, that regards social psychology as strictly connected to close disciplines such as sociology and anthropology and accords a greater role to social and cultural aspects (http://www.easp.eu/about/?). This contribute consists in an empirical analysis that moves from the study of scientific production. Over time, scientific journals shape the history of a discipline as they include objects, fields of application and methods that contribute to delineate the trajectory of a discipline. Thus, an in-depth understanding of the past and the temporal evolution of a discipline can be achieved by analysing the scientific debate inside relevant scientific journals (Trevisani and Tuzzi, 2015; 2018). We have taken into account the European Journal of Social Psychology (EJSP) and the Journal of Personality and Social Psychology (JPSP). The former is an official publication of the EASP and worldwide represents the association's voice. The JPSP belongs to the American Psychological Association, that represents the most widespread community of psychologists in the United States, and not only: It is an important scientific reference that provides guidelines also in Europe. In terms of visibility and prestige, the JPSP is considered one of the most relevant journals of the field. The main aim is to observe and compare the trajectory of the two Journal publications and to reflect about

what contribution these methods can provide for the study of the history of a discipline. We particularly intend: 1) to portray the temporal pattern of the main concepts debated in the past and covered today by EJSP and JPSP; 2) to detect, retrieve and compare the main topics these journals dealt with over time.

2. Methods

All the available abstracts of the two journals have been included in two corpora and collected from different acknowledged sources compared with the website of the journals. As regards EJSP, a total of 2,559 items was collected, for a period of 46 years, from the very first in 1971, Volume No. 1, Issue No. 1 to the latest of 2016, No. 46, Issue No. 7. Regarding JPSP, an amount of 9,568 item was downloaded, for a period of 52 years, from 1965, Volume No. 1, Issue No. 1 to 2016, No. 111, Issue No. 6. Items without any abstract have been deleted (e.g., editorials, master heads, errata, acknowledgements). The EJSP corpus is composed of 2,195 abstracts, while the JPSP one of 9,536 abstracts.

To improve the homogeneity of the corpora we decided to privilege the British spelling (e.g., we replaced *analyzed* with *analysed)* in EJSP and those American in JPSP. Our corpora have been normalised only replacing uppercase with lowercase letters. The lexicometric measures showed that there is a good redundancy, that is fundamental to work with frequencies (Lebart, Salem, & Berry, 1998; Tuzzi, 2003; Bolasco, 2013).

Multi-words (MW) with frequencies ≥ 5 for the EJSP corpus and ≥ 10 for the JPSP one (it is consistently larger than the former) have been recognised, selected and considered as textual units. We resort to a procedure for automatic information retrieval that permits to recognise repeated informative sequences, e.g., an adjective followed by a noun as in "social psychology", that produce a MW (Pavone, 2010). Two encyclopaedias of social psychology (Manstead et al., 1995; Baumeister & Vohs, 2007) and index of keywords available in the downloading process provided further MWs.

In order to depict the structure of the association between years and words and to establish the existence of a chronological dimension, a (lexical) correspondence analysis (CA) has been conducted on two matrices: 5,784 words over 46 years (rows per columns) for EJSP corpus and 8,349 x 52 for JPSP. To detect a set of relevant topics included in the journals and observe their temporal development, an analysis implemented by means of Reinert's method (1986) has been conducted. Topics can be defined as "lexical worlds" (Reinert, 1993), that are groups of words referring to a class of meaning. The result, performed with a hierarchical descending classification, is a dendrogram that groups units into classes that mirror a similar lexical

context. Textual data were processed with the Taltac2 dedicated software and statistical analyses were conducted with SPAD, Iramuteq and R software packages.

3. Results

By means of CA we can observe the existence of clear-cut temporal dimension in both the corpora (Figure 1). The keywords which mainly contributed to the factorial solution show which concepts typifies each time-span.

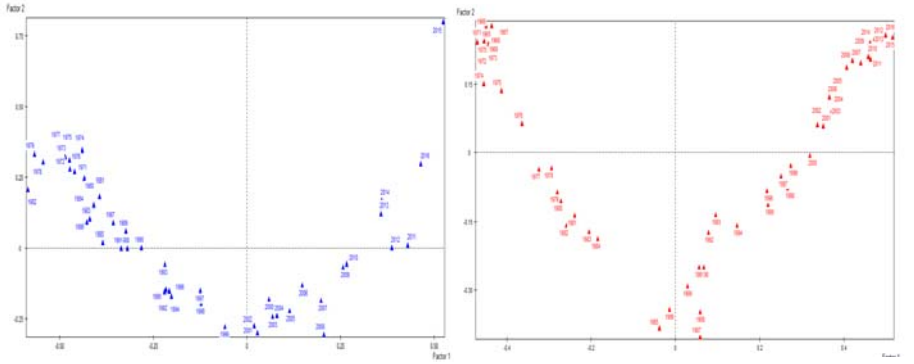

Figure 1 - First factorial plan of Correspondence Analysis of EJSP (left side) and JPSP (right side). Projection of years

In the EJSP (Figure 1, left side) the first period (1971-1990) is strongly characterised by words that refer to the experimental design. This is the period mainly concerned with the study of aggression, risk taking, dissonance, and attribution theory. The keywords of the subsequent period (nineties) seem to be related to social change, which is characterised by the study of social influence, categorization, and words referring to Moscovici and Tajfel's theories (that marked the European production: social representations, minority influence and minimal group paradigm). In the following years (2000s) we can observe that the attention has turned on the self, ingroup/outgroup relations and the social cognition with the study of stereotypes, emotions, motivation, agency/communion, and so on. In recent years (2011-2016) mainly social issues (e.g., gender, migration, environment, religion) and everyday life concerns are highlighted.

As regards the JPSP (Figure 1, right side), in the first decade considered (1965-1976) the main contribution is given by words as reinforcement, verbal reinforcement, conditioning, and so on, that together refer to behaviourism. At the same time, we can observe the occurrence of words pertain to game's theories, conflict/cooperation as well as aggression and dissonance theory.

Also physiological measurements (e.g. heart rate) and experiments (experimental) are visible. The second period includes the last Seventies until the last Eighties. Its distinctive words are masculinity/femininity, and other terms that remind to motivational theories. Moreover, the presence of words related to personality is evident and becomes stronger in the following period, that includes the Nineties. In this period mood, personality, individual differences, memory and the self represent the main contribution. At the same time also issues about gender and women are noteworthy. The last period starts from the 2000s and shows many references to explicit/implicit, and intimate relationships. Moreover, further specific words about positive psychology (life satisfaction, goal pursuit, and so on) and culture (cultural, culture) are relevant.

The analysis conducted by means of Reinert's method enlightens the presence of nine different lexical worlds (79.64% of the abstracts have been classified) in EJSP (Figure 2).

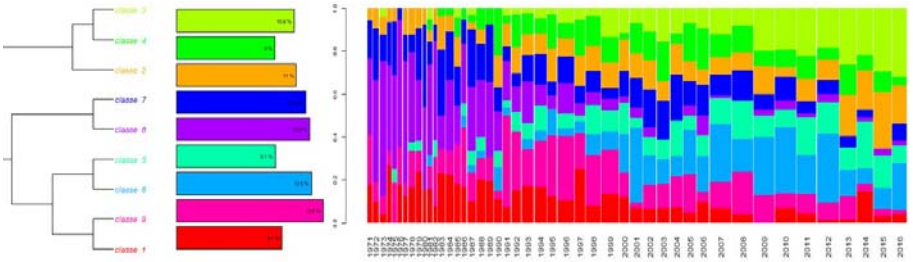

Figure 2 - EJSP classes and their distributions over years – Unsupervised clustering method

Following the classes order from the bottom to the top of Figure 2, a brief outline of their contents is provided below. Class 1 (red) concerns attribution and methodological issues (e.g., method, statistical, model). Class 9 (fuchsia) contains words related to impression formation, categorisation and stereotype. Both these classes show decreasing trends without disappearing. Class 6 (light blue) includes mainly words related to gender studies and implicit measures (e.g., prime, IAT). Class 5 (water blue) concerns moods and regulatory focus theory. These two classes show increasing trends. Class 8 (purple) concerns studies on aggression (in which mainly male/female as subjects involved in an experiment were compared). This class was initially hegemonic in the field and then disappeared along time. Class 7 (blue) includes game theories and studies on cooperation competition and shows a decreasing trend. Class 2 (orange) concerns politics and culture (mainly cross cultural studies) and it is an ever-present topic, as well as Class 4 (green) that concerns the social identity theory and ingroup/outgroup dynamics. Class 3, that concerns the applications of that theory (e.g., migration), shows a clear

increasing trend. As regards JPSP, the analysis shows the presence of eleven clusters (76,08% of the abstracts have been classified - Figure 3). Following the order of the classes from the bottom to the top of Figure 3: Class 7 (light blue) concerns consensus formations and attribution, and seems to be an ever-present topic. Class 6 (water blue) contains processes regarding memory, stereotypes and categorisation and it is particularly recurrent in the nineties and 2000s. Class 3 (grey) contains studies on self, emotion and motivation and shows a clear increasing trend, becoming one of the most relevant topics nowadays. Classes 11 (fuchsia), 10 (lilac), and 1 (red) concern, respectively, studies on aggression and physical measurements, on dissonance and opinion changes, and male and female involved in experimental studies. They were predominant in the first years considered and then disappeared. Class 9 (purple) concerns culture (mainly comparing west and east ones) and politics. It shows an increasing trend although it is not among main topics nowadays. Class 2 (orange) includes words regarding the measurements and their validity (e.g., scale, reliability, test retest) and shows a stable trend. Class 8 (blue) contains words relate to interpersonally differences (based on gender or studied with twin studies). It seems to remain constant even if with a slight decreasing trend. Class 5 (water green) is represented by words concerning health (mental and physical) and how to cope with related problems. Class 4 (green) concerns romantic and couple relationships. Both those classes show increasing trends.

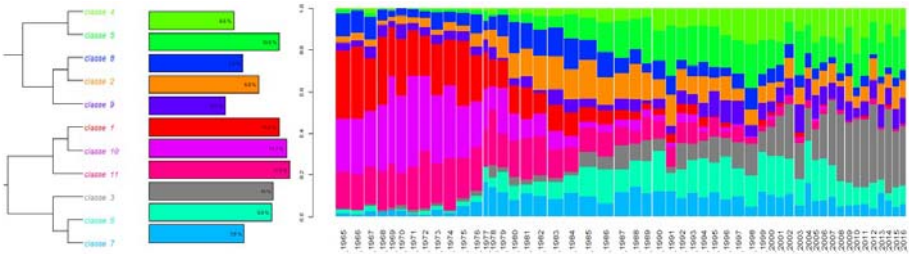

Figure 3 - JPSP classes and their distributions over years – Unsupervised clustering method

4. Discussion and conclusions

The aim of the present study is to compare American and European social psychology offering food for thought on the contribution of the methods used in studying the histories of a discipline. Thanks to these preliminary results we succeeded in highlighting the history of a discipline from the particular point of view of its effective scientific production.

In the first years considered, some similarities among the contents tackled in the two journals can be noticed (e.g., dissonance theory and aggression). The main differentiation that emerged concerns the stronger attention on

individual and personality in JPSP, on the one hand, and the different impact of Tajfel and Moscovici's contributions on the psychology of groups and Moscovici's works on social representations, on the other. This emerged as particularly evident in '80s and '90s. The predominant approach of social cognition seems to be a common feature, as well as methods and research design that mainly refer to the experimental method and topics concerning cross cultural studies and politics. As regards the topics identified, some common trajectories of publication were enlightened. They are, for example, Class 11 in EJSP and 8 in JPSP, concerning studies on aggression that were predominant in the first decades and later decline. Class 1 in EJSP and 7 in JPSP, as regards, studies on attribution. Also, class 2 in EJSP and 9 in JPSP, that are related to culture and politics. Similar contents but different trajectories are shown by Class 9 in EJSP and 6 in JPSP. The main difference between the journals is observed in JPSP Classes concerning personality, health, cope, and romantic and couple relationships (8, 5, 4), and EJSP Classes concerning ingroup/outgroup processes, and intergroup contact and applied concerns (4, 3).

It is worth mentioning the core of the difference between American and European social psychology: the attention on the individual in the American and on the social in the European one. That difference finds its way as a greater attention on social issues in EJSP and individual related studies (e.g. interpersonal relations, personality) in JPSP. Two histories of publications in social psychology have been traced, one North American and the other European. Their typical differentiation is historically well known in the community, but the empirical works that contributed to that debate are less. This is an example of the contribution that quantitative analysis of textual data can provide to the study of the history of a discipline, also known as digital history.

References

Allport, F. (1924). *Social Psychology*. Boston, MA: Houghton Mifflin.

Baumeister, R. F., & Vohs, K. D. (2007). *Encyclopedia of social psychology*. Thousand Oaks, CA: Sage.

Lebart, L., Salem, A., & Berry, L. (1998). *Exploring textual data*. Netherlands: Springer. doi:10.1007/978-94-017-1525-6

Manstead, A. S., Hewstone, M. E., Fiske, S. T., Hogg, M. A., Reis, H. T., & Semin, G. R. (1995). *The Blackwell Encyclopedia of Social Psychology*. Blackwell Reference/Blackwell Publishers.

Moscovici, S. (1999). Ringraziamento. In *Laurea Honoris Causa in Psicologia a Serge Moscovici*. Università degli studi di Roma "La Sapienza": Centro Stampa d'Ateneo.

Moscovici, S., & Markova, I. (2006). *The making of modern social psychology*. Cambridge: Polity.

Pavone, P. (2010). Sintagmazione del testo: una scelta per disambiguare la terminologia e ridurre le variabili di un'analisi del contenuto di un corpus. In S. Bolasco, I. Chiari, & L. Giuliano (Eds.) *Statistical Analysis of Textual Data: Proceedings of 10th International Conference Journées d'Analyse statistique des Données Textuelles*, 9-11 June 2010, Sapienza University of Rome, pp. 131-140. LED.

Ratinaud, P. (2014). Visualisation chronologique des analyses ALCESTE: application à Twitter avec l'exemple du hashtag# mariagepourtous. *Actes des 12es Journées internationales d'Analyse statistique des Données Textuelles*. Paris Sorbonne Nouvelle–Inalco.

Reinert, M. (1983). Une méthode de classification descendante hiérarchique: application à l'analyse lexicale par contexte. *Les cahiers de l'analyse des données*, 8(2), 187-198.

Reinert, M. (1993). Les «mondes lexicaux» et leur «logique» àtravers l'analyse statistique d'un corpus de récits de cauchemars. *Langage & Société*, 66, 5–39.

Trevisani, M., & Tuzzi, A. (2015). A portrait of JASA: The history of Statistics through analysis of keyword counts in an early scientific journal. *Quality and Quantity*, 49, 1287-1304.

Trevisani, M., & Tuzzi, A. (2018). Learning the evolution of disciplines from scientific literature. A functional clustering approach to normalized keyword count trajectories. *Knowledge-Based System*, 146, 29-141