

**PERSONAL IDENTITY THROUGH TIME: HISTORICAL FRAGMENTATION
AND THE CONCEPT'S EVOLUTION FROM A BIBLIOMETRIC PERSPECTIVE**

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Abstract

Research into the field of personal identity has seen exponential growth in recent years. There is, however, a lack of any systematic reviews that synthesise the advances that have been made. This paper aims to combine bibliometric and social network analysis (SNA) techniques to identify the principal actors (authors, institutions, documents, journals, countries, etc) and the main currents, research trends and their interrelations within the field of personal identity. The study analysed 998 research papers drawn from a search of the Web of Science database using the “Rstudio” environment and VOSviewer software. The results offer a revealing portrait of the evolution, connections and relations within the field, particularly the significant differences in the manner in which personal identity is approached within the disciplines of Psychology and Philosophy.

Key words: *identity, bibliography, education, youth.*

Introduction

The question of one’s individual identity has been a part of human experience since Antiquity. While this is a perennial question, persisting throughout the life of every individual, the period between late adolescence and early adulthood is a particularly important time for the psycho-social evolution and development of one’s own personal identity (Erikson, 2004; Schwartz et al., 2017). The establishment of one’s own personal values and goals, the discovery of personal meaning in life and the recognition of those elements which make one’s own self unique and irreplaceable are the central challenges of this time of life. Successfully meeting these challenges will have a significant impact on the future of the individual, especially in terms of their emotional wellbeing (Phillips et al., 2021); mental health (Côté, 2018); professional career (Mannerström et al., 2019); capacity for commitment (Jia et al., 2021); and resilience in the face of adversity (Calandri et al., 2020). All of these aspects are deeply associated with the objectives of the 2030 Agenda, specifically SDG 3, SDG 4 or SDG 13. Given the transcendental importance of

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personal identity for the wellbeing of individuals and considering that education primarily seeks the full development of the person, the construction of a solid personal identity must be a primary pedagogical goal for educators, particularly those involved in the transition stage between adolescence and early adulthood. While educational institutions are making significant efforts in this area (Brown & Shay, 2021), one of the greatest difficulties in designing activities and experiences that further the development of personal identity among young people is the highly fragmented nature of knowledge in this field.

State of the question: personal identity – a fruitful but fragmented field

Personal identity, understood as a set of personal values, beliefs and goals (Erikson, 2004; Hardy et al., 2017) has long been a subject of great interest across many disciplines and the subject of an increasing amount of scientific research in recent decades (Schachter & Galliher, 2018). However, the difficulties in conceptualising personal identity as a construct (Maslova et al., 2021), its profound interrelation with other processes of personhood (Schwartz et al., 2017) and the diversity of anthropological and philosophical conceptions (Wilde, 2021), hinder the establishment of a common language (Phoenix & Rattansi, 2005). Thus, personal identity is a broad and fruitful but nevertheless fragmented and unstructured field of study (Brown & Shay, 2021).

In addition to these difficulties, there is also a lack of any systematic reviews that avoid the author bias found in narrative reviews (Pae, 2015), the only reviews currently available to explore this field of study. By contrast there are many systematic reviews that synthesise the advances in specific areas of identity, such as professional (Volpe et al., 2019), educational (van Lankveld et al., 2017), gender (Blondeel et al., 2018), social (Bey et al., 2019), ethnic (Dizon et al., 2021) or religious identity (Héliot et al., 2020), among many others. Thus, given the lack of systematic reviews on the subject of personal identity, engaging in this field is particularly difficult and is mainly approached through narrative reviews in the fields of Psychology and Philosophy.

Approaching the concept of personal identity from the field of Psychology, a number of articles offer a broad overview of the evolution of the concept and the principal theories and leading authors (Luyckx et al., 2011; Schwartz et al., 2017). Of particular note is the monograph coordinated by Schacter and Galliher (2018), in which leading authors address the principal issues in the study of personal identity and future prospects for research. These articles offer a fuller understanding of the field of personal identity and its relation to issues and contexts related to politics (Alberts & Durrheim, 2018), mental health (Côté, 2018), youth radicalisation (Hihara et al., 2018); engagement in the online environment (Kay, 2018), affective connections

(Kerpelman & Pittman, 2018), community (Rogers, 2018) and culture (Syed & Fish, 2018). A reading of these articles not only provides a historical overview of the diverse currents in the field but also insight into aspects which have received limited attention.

The future prospects in the study of personal identity from a philosophical approach can be explored through a reading of a number of articles gathered in a monograph on phenomenology and personal identity (Čapek & Loidolt, 2021). This offers an overview of the principal currents and schools of thought in the field, illustrating the efforts made in recent decades to refine the definition of personal identity and distinctions from other concepts, such as self-awareness (Drummond, 2021); the importance of the experiential dimension of identity (Fasching, 2021); the conception and evolution of identity as a phenomenological dilemma (Crowell, 2021); the study of the impact of life decisions on the formation and transformation of identity (Crone, 2021); the analysis of the effects of aging on self-conception (Sternad, 2021); the role of various elements which configure personal identity as a narrative (Schmidt & Fuchs, 2021), intersubjectivity (Carr, 2021) and performativity (Wehrle, 2021); or the analysis of the role of negativity in the construction of personal identity (Matějčková, 2021).

These contributions illustrate that personal identity is a rich and prolific field of study while also underscoring the difficulty of any systematic organisation of the field that can integrate the advances in a number of disciplines and to understand the voices, themes and most significant interrelations within the field. The aim of this research project is to address this need for systematisation. We believe that Bibliometrics and social network analysis (SNA) can offer an integrated vision through the use of statistical and replicable models (Aria & Cuccurullo, 2017). Bibliometric analyses “explore the sum of publications that reveal the scientific production, research groups and areas of scientific enquiry by using prestigious research databases to classify selected indicators” (Rodríguez Fuentes & Gallego Ortega, 2019, p. 309). The combination of these analyses with a range of social media analysis techniques (Borgatti et al., 2018) can reveal thematic trends, groups of authors and collaborative networks as well as relations between people, groups and lines of research which may be difficult to detect and quantify using traditional methods of analysis.

Given the lack of these types of studies on personal identity, the aim of this paper is to explore the structure and research trends within this field in the last two decades, creating a conceptual framework that will clarify the principal voices, institutions and themes within the significant body of work produced during this time. The study will attempt to illustrate visually the relations and connections between agents and aspects within the field. We believe that identifying these aspects will help orient future research and educational

interventions to foster the development of solid personal identities able to meet the challenges of a global, digital and ever changing world.

Method

Design of the research

To meet this objective a bibliometric research project was proposed using a longitudinal, descriptive-retrospective method and bibliometric mapping, applying a number of techniques to analyse social networks (SNA) for the visualisation of the relationships between the principal actors and elements within the network. Taking previous bibliometric studies in the field of education as a reference (González-Mayorga et al., 2022; Marín-Marín et al., 2021) the following research questions were posed:

- Q1: Which actors have the greatest impact in the field (authors, institutions, journals, countries) and how have these evolved over time?
- Q2: What are the principal schools of thought in the analysed literature? What authors play a central role? Do authors from a specific discipline tend to have a more prominent role?
- Q3: What are the leading sources of documentation in this field of study?
- Q4: What are the collaborative networks between authors, countries and/or institutions? Are these between authors within the same discipline or are they interdisciplinary networks?
- Q5: How has this field of study changed over time?

To answer these questions, and following the recommendations of various authors (Donthu et al., 2021) the research project was structured into five phases: design of the research, data collection, analysis, visualisation and interpretation.

Data collection

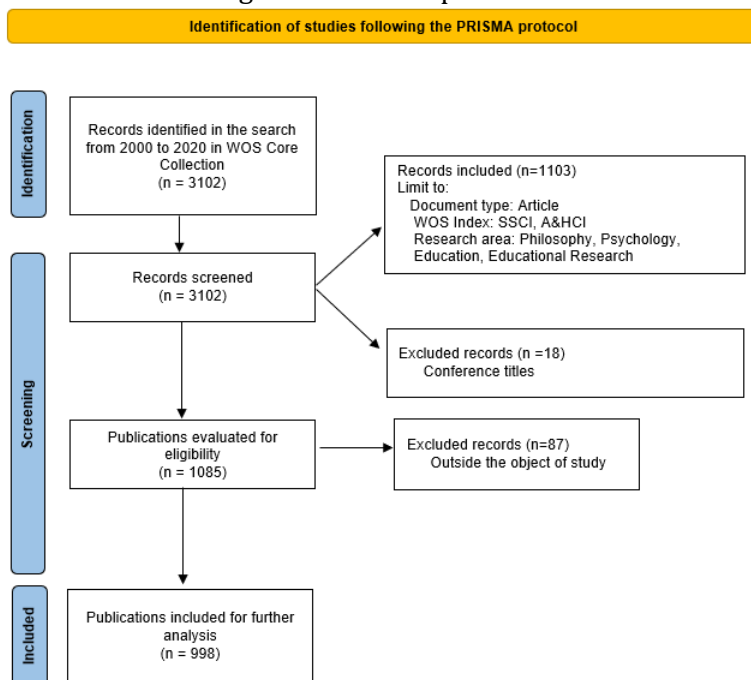
Bibliometric studies in the field of education make use of both the Scopus (Agbo et al., 2021) and Web of Science (WOS) (Marín-Marín et al., 2021) databases with illuminating results. Considering the effectiveness of both databases, as noted by a number of authors (Harzing & Alakangas, 2016), the present study made use of the more restrictive WOS database.

In line with previous studies (Segura-Robles et al., 2020), the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) method was applied in the selection of the articles included in the final sample of the study. Figure 1 shows the different steps of the selection process.

In October 2021 a search was conducted of the WOS with the term “personal identity”, restricting the search between the year 2000 and 2020 (2000-01-01 to 2020-12-31), and applying the exclusion and inclusion criteria to the results. The remaining publications were then manually

reviewed, with a reading of the title and abstract, eliminating those which fell outside the scope of the study. The final sample of the study consisted of a total of 998 articles. Before proceeding with the analysis of the data, a manual screening was made to avoid any bias in the results.

Figure 1: PRISMA protocol



Data analysis

Using the RStudio integrated development environment with the Bibliometrix package (Aria & Cuccurullo, 2017) descriptive analyses were made to measure the central data trends, providing an initial overview of the field and so respond to the first question of this study (Q1). Social network analysis (SNA) techniques were then used to evaluate the co-citation of authors (Q2) and documents to identify the principal documentary sources within the field (Q3). An analysis was also made of collaborative networks both between authors as well as universities and countries (Q4) and thematic analyses were also made (Q5). Finally, VOSviewer software (van Eck & Waltman, 2010) was used to create visual maps using the data.

Results

Descriptive analysis of the results

Following on Alnajem et al., (2021), a preliminary analysis was made of the search results in WOS. The general information of the articles studied is

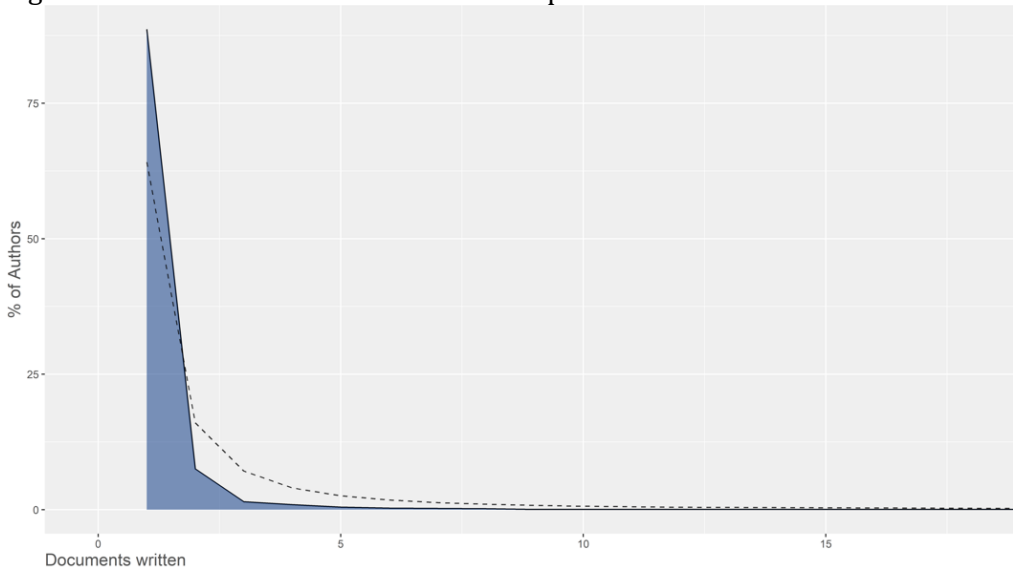
provided in Table 1. As can be seen, a total of 998 articles were analysed, corresponding to 1711 authors and published in 413 scientific journals between the years 2000 and 2020.

Table 1: General information of the articles

Item	Data
Articles	998
Time period	2000-2020
Journals	413
Mean citation per article	16.36
Total references	30,855
Authors	1,711
Collaboration index	2.79
Individually authored papers	546

The mean number of citations per article is 16.36. the collaboration index is 2.79. As is the case with disciplines related to the Humanities and Social Sciences this index tends to be lower than in the Natural Sciences (Larivière et al., 2006). It is assumed that this index would be substantially higher if the study included articles from the field of Medicine (Psychiatry). Of the articles included in the review, over half (54.7%) were written by a single author, suggesting that collaborative networks are not very extensive or consolidated. The visualisation of the production of scientific research (Figure 2), with the application of Lotka’s law (Da Silva et al., 2019), reveals a long tail, indicating that for some individual authors the field of personal identity is not their principal area of research (Alnajem et al., 2021).

Figure 2: Distribution of scientific research production.



As shown in Figure 3, there has been a very significant increase in the production of scientific research in the last two decades, especially since 2007, up 366.6% from 2000 to 2020. The period showing the greatest increase was between 2006 and 2016 with trends again rising in 2020. It remains to be seen if this trend will continue in the coming years.

Figure 3: Annual scientific research



The prominence and impact of authors in terms of scientific research was analysed (number of individual and co-authored articles) according to their *h*-index (Hirsch & Buela-Casal, 2014). The specific discipline of the authors was also identified, using author profiles on Google Scholar, in order to determine the differences in production according to the field of study. Generally speaking, the most productive authors are from the field of Psychology (70%) although a comparison of author productivity by articles and by collaborative articles shows that authors in the field of Psychology have a greater tendency to co-author research while in Philosophy authors more commonly write individually. Thus, the productivity of authors in the field of Psychology, by co-authored articles, is lower than those from Philosophy.

Table 2: Most productive authors in the period

Author	Discipline	Number of articles	Author	Discipline	Co-authored articles
Schwartz SJ	Psychology	21	Beck S	Philosophy	9
Luyckx K	Psychology	12	Campbell S	Philosophy	7.5
Zamboanga BL	Psychology	10	Stokes P	Philosophy	7
Beck S	Philosophy	9	Belohrad R	Philosophy	6
Campbell S	Philosophy	8	Olson ET	Philosophy	5
Karwowski	Psychology	8	Duncan M	Philosophy	5

M					
Klimstra TA	Psychology	8	Johansson J	Philosophy	5
Crocetti E	Psychology	7	Karwowski	Psychology	4.92
			M		
Gómez A	Psychology	7	Langford S	Philosophy	4
Meca A	Psychology	7	Toner P	Philosophy	4

Notably, of the authors with the highest *h*-index, the top nine are from the field of Psychology, suggesting that the work in this area has greater impact in terms of the number of citations. This trend is also observed in the difference between the most prolific and most frequently cited journals while those publishing the highest number of articles are largely in the field of Philosophy, while the journals with the highest number of citations, according to the *h*-index, are largely (70%) from the field of Psychology.

Table 3: Journals with the highest number of published articles

Journal	Nº articles	Discipline
Philosophical Studies	30	Philosophy
South African Journal of Philosophy	15	Philosophy
Frontiers in Psychology	12	Psychology
Phenomenology and the Cognitive Sciences	12	Philosophy
Synthese	11	Philosophy
Australasian Journal of Philosophy	10	Philosophy
Erkenntnis	10	Philosophy
Philosophy and Phenomenological Research	10	Philosophy
Southern Journal of Philosophy	10	Philosophy
Continental Philosophy Review	9	Philosophy

Table 4: Journals with the highest number of citations, *h*-index

Journal	Nº articles	Discipline
Philosophical Studies	9	Philosophy
Journal of Experimental Social Psychology	8	Psychology
Frontiers in Psychology	6	Psychology
Journal of Youth and Adolescence	6	Psychology
Personality and Social Psychology Bulletin	6	Psychology
Journal of Adolescence	5	Psychology
Journal of Personality and Social Psychology	5	Psychology
Memory	5	Psychology
Mind	5	Philosophy
Nous	5	Philosophy

Finally, the production of scientific research by country was analysed. The United States, United Kingdom and Canada are the countries with both the highest production and number of citations. Spain has a significant amount of both production and citations. Surprisingly, Poland, a country that does not produce a great deal of scientific research shows a high number of

citations, suggesting that while not prolific these articles are of high quality and great interest for the scientific community.

Table 5: Most productive and highly cited countries

Country	Articles	Country	Citations
United States	600	United States	6,738
United Kingdom	161	United Kingdom	2,152
Australia	89	Canada	1,139
Canada	77	Netherlands	1,105
Germany	69	Spain	821
Netherlands	65	Australia	648

Analysis of co-citation networks

An analysis was made of co-citation, of authors, articles and journals, providing an illustration of the structure of the field and identifying the principal actors and most consistent relations (Gálvez, 2018). To construct the network, a minimum of 50 co-citations was established, resulting in 3,442 nodes distributed in 20 clusters (Figure 4).

Figure 4. Network of document co-citations.



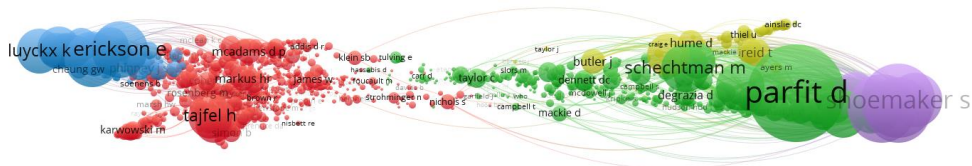
A close analysis of the various groups reveals a significant division between research articles in the field of Philosophy (right) and those in the field of Psychology (left), with few connections between these nodes. The most central documents within the field of Philosophy are: “Reasons and Persons” by Parfit, “Human animal identity” by Olson, “Personal identity” by Shoemaker, “Constitution Selves” by Schechtman, “Essays on Human understanding” by Locke and “A Treatise of Human Nature” by Hume. These findings are in line with those of various authors in their reviews, which show the preponderance of these authors in the field.

In the field of Psychology (left) the most important and central documents within this node are: “Identity: Youth and crisis” by Erickson, with numerous connections with six different clusters; “Development and validation of ego-identity status” by Marcia, “Developmental Typologies of Identity Formation and Adjustment in Female Emerging Adults: A Latent

Class Growth Analysis Approach” by Luyckx et al., “Rediscovering the Social Group: A Self-categorization Theory” by Turner, “Social Psychology of intergroup relations” by Tajfel, as well as a number of articles by Schwartz. Furthermore, large thematic areas can be identified creating clusters within the network. Particularly prominent is the orange cluster which combines documents related to the development of identity with an Eriksonian approach. Articles are also grouped around the theme of social psychology and group behaviour (red cluster); with identity construction viewed through the lens of immigration or religiosity (yellow cluster); or the process of identity development (blue cluster). Finally, on the left of the network is a cluster without connections with any others and which groups articles dealing with the development of creativity (brown cluster). These clusters reveal the large thematic trends of research and interconnections between trends within the network.

Secondly, an analysis was made of the co-citation among authors in order to identify the intellectual structure of the field. To construct the network, a minimum of 25 co-citations was established to produce a network with 1,490 nodes divided into 5 clusters, shown in Figure 5.

Figure 5. Network of author co-citations.



Here again, there is a clear division between authors in the field of Philosophy (right) and Psychology (left). In yellow are the philosophical authors within the Anglo-Saxon tradition, following the postulates of Locke, who occupies a prominent place in the network with a total of 459 connections. Also part of this group, although less centrally, are the poststructuralist philosophers such as Butler. The green and brown nodes correspond to authors with a continental perspective, including such prominent authors as Parfit, Shoemaker, Schechtman and Olson. In a central position is the green cluster, representing a small group of authors, such as MacIntyre, Taylor and Ricoeur, who have endeavoured to synthesise previous philosophical trends. Their work focusses on the themes of virtue or the narrative character of identity and are closely associated with the field of Psychology. The blue cluster corresponds principally to authors with Eriksonian trends, including authors such as Berzonksy, Meeus, Marcia, Klimstra, Kurtines and Erikson himself, a central figure in the network with

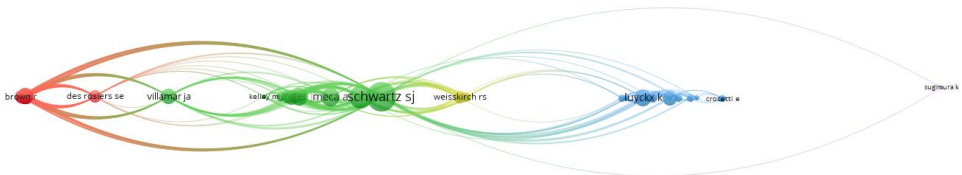
649 connections. This blue node is connected with prominent authors in the red node, such as Tajfel or McAdams, who, as mentioned, take a markedly social approach to the issue of personal identity.

Analysis of collaborative networks

Collaborative networks are drawn from an analysis of joint publications by authors within a specific field (Alnajem et al., 2021), allowing for the identification of groups of authors who produce collaborative research and thus may be considered as sharing a common school of thought. The descriptive analysis showed that, in the field of personal identity, research is primarily by individual authors rather than collaborative efforts. Thus, collaborative networks of authors were expected to be limited. Furthermore, given the comparison between individual and co-authored articles, it was expected that the majority of the authors within collaborative networks would be from the field of Psychology.

The mapping of the collaborative networks (Figure 6) confirmed this expectation. To construct the network, a minimum of 10 links was established, resulting in 139 nodes distributed in 5 clusters. As can be seen, a central position is occupied by Schwartz, showing collaborations with authors from all clusters. Furthermore, the various authors appearing in the map and their postulates suggest the phenomenon of homophily (Celis & Kim, 2018) in the network.

Figure 6. Collaborative networks of authors.



The collaborative networks between countries were analysed (Figure 7), revealing the predominant role of the United States, in terms of centrality and size. The principal networks, with the exception of Australia, are found in Europe (Denmark, Sweden, Netherlands, Spain, United Kingdom and Belgium), and North America (Canada and the United States).

Figure 7. Collaborative networks between countries.

Firstly, this analysis highlights the growing importance of this field of study, illustrated by the growing number of publications in recent years. It also shows the significant research being conducted in Spain in terms of both production and citations. Secondly, this analysis has identified the differences in scientific production, citations and publications within the two broad disciplines most closely associated with the question of personal identity: Psychology and Philosophy. Bibliometric analyses have revealed unexpected results, suggesting a very different and even contrary methods and means by which the two disciplines have approached the subject. While there is greater production in the field of Philosophy in terms of articles and publications, the area of Psychology has greater impact and reach, as indicated by the *h*-index of authors and publications. The analysis of co-citation, between authors and articles, shows a striking absence of connection between these two disciplines. The low rate of collaboration, the high proportion of papers written by individual authors, and the existence of collaborative networks almost exclusively limited to authors from the field of Psychology, are evidence of the highly fragmented nature of the field and the difficulty of creating spaces for interdisciplinary encounter and dialogue.

Though our analysis of co-citations we believe this research project has revealed the principal documentary sources of this field of study. We also believe that this analysis of co-citations illustrates not only the distinctive schools of thought but also the specific authors with the greatest connections across various groups. Identifying these prominent authors and their postulates may serve to create point of encounter among diverse trends and overcome the fragmentation within the field.

This analysis has aimed to clarify the panorama within the field of personal identity, revealing relations between different elements, authors and aspects which may be difficult to identify without the use of social media analysis techniques. However, future research should include other databases, such as Scopus or Pubmed, in order to validate and expand the results obtained in our research. Furthermore, it would be instructive to include other types of documents for this form of analysis in order to identify additional relations and connections which may have been overlooked in the initial bibliographic analysis of the field (book chapters, conference notes, etc).

References

1. Agbo, F. J., Oyelere, S. S., Suhonen, J., & Tukiainen, M. (2021). Scientific production and thematic breakthroughs in smart learning environments: a bibliometric analysis. *Smart Learning Environments*, 8(1), 1. <https://doi.org/10.1186/s40561-020-00145-4>
2. Alberts, C., & Durrheim, K. (2018). Future Direction of Identity Research in a Context of Political Struggle: A Critical Appraisal of Erikson. *Identity*, 18(4), 295–305. <https://doi.org/10.1080/15283488.2018.1523727>
3. Alnajem, M., Mostafa, M. M., & ElMelegy, A. R. (2021). Mapping the first decade of circular economy research: a bibliometric network analysis. *Journal of Industrial and Production Engineering*, 38(1), 29–50. <https://doi.org/10.1080/21681015.2020.1838632>
4. Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
5. Bey, G. S., Ulbricht, C. M., & Person, S. D. (2019). Theories for Race and Gender Differences in Management of Social Identity-Related Stressors: a Systematic Review. *Journal of Racial and Ethnic Health Disparities*, 6(1), 117–132. <https://doi.org/10.1007/s40615-018-0507-9>
6. Blondeel, K., de Vasconcelos, S., García-Moreno, C., Stephenson, R., Temmerman, M., & Toskin, I. (2018). Violence motivated by perception of sexual orientation and gender identity: a systematic review. *Bulletin of the World Health Organization*, 96(1), 29–41L. <https://doi.org/10.2471/BLT.17.197251>
7. Borgatti, S., Everett, M., & Johnson, J. (2018). *Analyzing Social Networks* (2nd ed.). SAGE Publications.
8. Brown, C., & Shay, M. (2021). From resilience to wellbeing: Identity-building as an alternative framework for schools' role in promoting children's mental health. *Review of Education*, 9(2), 599–634. <https://doi.org/10.1002/rev3.3264>
9. Calandri, E., Graziano, F., Borghi, M., Bonino, S., & Cattelino, E. (2020). The Role of Identity Motives on Quality of Life and Depressive Symptoms: A Comparison Between Young Adults With Multiple Sclerosis and Healthy Peers. *Frontiers in Psychology*, 11, 589815. <https://doi.org/10.3389/fpsyg.2020.589815>
10. Čapek, J., & Loidolt, S. (2021). Phenomenological approaches to personal identity. *Phenomenology and the Cognitive Sciences*, 20(2), 217–234. <https://doi.org/10.1007/s11097-020-09716-9>
11. Carr, D. (2021). Personal identity is social identity. *Phenomenology and the Cognitive Sciences*, 20(2), 341–351. <https://doi.org/10.1007/s11097-020-09702-1>

12. Celis, S., & Kim, J. (2018). The making of homophilic networks in international research collaborations: A global perspective from Chilean and Korean engineering. *Research Policy*, 47(3), 573–582. <https://doi.org/10.1016/j.respol.2018.01.001>
13. Côté, J. E. (2018). The Enduring Usefulness of Erikson's Concept of the Identity Crisis in the 21st Century: An Analysis of Student Mental Health Concerns. *Identity*, 18(4), 251–263. <https://doi.org/10.1080/15283488.2018.1524328>
14. Crone, K. (2021). Personal identity, transformative experiences, and the future self. *Phenomenology and the Cognitive Sciences*, 20(2), 299–310. <https://doi.org/10.1007/s11097-020-09699-7>
15. Crowell, S. (2021). On what matters. Personal identity as a phenomenological problem. *Phenomenology and the Cognitive Sciences*, 20(2), 261–279. <https://doi.org/10.1007/s11097-020-09695-x>
16. Da Silva, S., Perlin, M., Matsushita, R., Santos, A. A., Imasato, T., & Borenstein, D. (2019). Lotka's law for the Brazilian scientific output published in journals. *Journal of Information Science*, 45(5), 705–709. <https://doi.org/10.1177/0165551518801813>
17. Dizon, L., Selak, V., Ramalho, R., & Peiris-John, R. (2021). Factors influencing the negotiation of ethnic identity among 1.5 and second-generation Asian migrants: A mixed methods systematic review. *Journal of Adolescence*, 89, 95–112. <https://doi.org/10.1016/j.adolescence.2021.04.005>
18. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
19. Drummond, J. J. (2021). Self-identity and personal identity. *Phenomenology and the Cognitive Sciences*, 20(2), 235–247. <https://doi.org/10.1007/s11097-020-09696-w>
20. Erikson, E. (2004). *Sociedad y adolescencia*. Siglo XXI.
21. Fasching, W. (2021). The I: A dimensional account. *Phenomenology and the Cognitive Sciences*, 20(2), 249–260. <https://doi.org/10.1007/s11097-020-09697-9>
22. Gálvez, C. (2018). El campo de investigación del Análisis de Redes Sociales en el área de Biblioteconomía y Ciencias de la Información: un análisis de co-citación y co-palabras. *Revista General de Información y Documentación*, 28(2). <https://doi.org/10.5209/RGID.62834>
23. González-Mayorga, H., Vieira, M. J., & Vidal, J. (2022). uso de los resultados españoles de PISA en publicaciones científicas. *Revista de Investigación Educativa*, 40(1), 183–202. <https://doi.org/10.6018/rie.451201>
24. Hardy, S. A., Nadal, A. R. C., & Schwartz, S. J. (2017). The Integration of Personal Identity, Religious Identity, and Moral Identity in Emerging

Adulthood. *Identity*, 17(2), 96–107. <https://doi.org/10.1080/15283488.2017.1305905>

25. Harzing, A.-W., & Alakangas, S. (2016). Google Scholar, Scopus and the Web of Science: a longitudinal and cross-disciplinary comparison. *Scientometrics*, 106(2), 787–804. <https://doi.org/10.1007/s11192-015-1798-9>

26. Héliot, Y., Gleibs, I. H., Coyle, A., Rousseau, D. M., & Rojon, C. (2020). Religious identity in the workplace: A systematic review, research agenda, and practical implications. *Human Resource Management*, 59(2), 153–173. <https://doi.org/10.1002/hrm.21983>

27. Hihara, S., Sugimura, K., & Syed, M. (2018). Forming a Negative Identity in Contemporary Society: Shedding Light on the Most Problematic Identity Resolution. *Identity*, 18(4), 325–333. <https://doi.org/10.1080/15283488.2018.1524329>

28. Hirsch, J. E., & Buela-Casal, G. (2014). The meaning of the h-index. *International Journal of Clinical and Health Psychology*, 14(2), 161–164. [https://doi.org/10.1016/S1697-2600\(14\)70050-X](https://doi.org/10.1016/S1697-2600(14)70050-X)

29. Jia, F., Alisat, S., Algrim, K., & Pratt, M. W. (2021). Development of Religious Identity and Commitment During Emerging Adulthood: A Mixed-Methods Longitudinal Study. *Emerging Adulthood*, 9(3), 259–264. <https://doi.org/10.1177/2167696820949799>

30. Kay, A. (2018). Erikson Online: Identity and Pseudospeciation in the Internet Age. *Identity*, 18(4), 264–273. <https://doi.org/10.1080/15283488.2018.1523732>

31. Kerpelman, J. L., & Pittman, J. F. (2018). Erikson and the Relational Context of Identity: Strengthening Connections With Attachment Theory. *Identity*, 18(4), 306–314. <https://doi.org/10.1080/15283488.2018.1523726>

32. Larivière, V., Gingras, Y., & Archambault, É. (2006). Canadian collaboration networks: A comparative analysis of the natural sciences, social sciences and the humanities. *Scientometrics*, 68(3), 519–533. <https://doi.org/10.1007/s11192-006-0127-8>

33. Luyckx, K., Schwartz, S. J., Goossens, L., Beyers, W., & Missotten, L. (2011). Processes of Personal Identity Formation and Evaluation. In *Handbook of Identity Theory and Research* (pp. 77–98). Springer New York. https://doi.org/10.1007/978-1-4419-7988-9_4

34. Mannerström, R., Muotka, J., & Salmela-Aro, K. (2019). Associations between identity processes and success in developmental tasks during the transition from emerging to young adulthood. *Journal of Youth Studies*, 22(9), 1289–1307. <https://doi.org/10.1080/13676261.2019.1571179>

35. Marín-Marín, J.-A., Moreno-Guerrero, A.-J., Dúo-Terrón, P., & López-Belmonte, J. (2021). STEAM in education: a bibliometric analysis of performance and co-words in Web of Science. *International Journal of STEM Education*, 8(1), 41. <https://doi.org/10.1186/s40594-021-00296-x>

36. Maslova, E. S., Polomoshnov, A. F., Gabibov, A. B., & Polomoshnov, P. A. (2021). Problems of the formation of youth changeable personal identity in postmodern conditions. *Journal of Community Psychology*, 49(7), 2753–2763. <https://doi.org/10.1002/jcop.22533>
37. Matějčková, T. (2021). Saying no (to a story): personal identity and negativity. *Phenomenology and the Cognitive Sciences*, 20(2), 353–364. <https://doi.org/10.1007/s11097-020-09700-3>
38. Pae, C.-U. (2015). Why Systematic Review rather than Narrative Review? *Psychiatry Investigation*, 12(3), 417. <https://doi.org/10.4306/pi.2015.12.3.417>
39. Phillips, R., Connelly, V., & Burgess, M. (2021). Explaining the relationship between religiosity and increased wellbeing avoidance of identity threat as a key factor. *Journal of Beliefs & Values*, 42(2), 163–176. <https://doi.org/10.1080/13617672.2020.1799152>
40. Phoenix, A., & Rattansi, A. (2005). Proliferating Theories: Self and Identity in Post-Eriksonian Context: A Rejoinder to Berzonsky, Kroger, Levine, Phinney, Schachter, and Weigert and Gecas. *Identity*, 5(2), 205–225. https://doi.org/10.1207/s1532706xid0502_9
41. Rodríguez Fuentes, A., & Gallego Ortega, J. L. (2019). Análisis bibliométrico sobre educación especial. *Profesorado, Revista de Currículum y Formación Del Profesorado*, 23(1). <https://doi.org/10.30827/profesorado.v23i1.9156>
42. Rogers, L. O. (2018). Who Am I, Who Are We? Erikson and a Transactional Approach to Identity Research. *Identity*, 18(4), 284–294. <https://doi.org/10.1080/15283488.2018.1523728>
43. Schachter, E. P., & Galliher, R. V. (2018). Fifty Years Since “Identity: Youth and Crisis”: A Renewed Look at Erikson’s Writings on Identity. *Identity*, 18(4), 247–250. <https://doi.org/10.1080/15283488.2018.1529267>
44. Schmidt, P., & Fuchs, T. (2021). The unbearable dispersal of being: Narrativity and personal identity in borderline personality disorder. *Phenomenology and the Cognitive Sciences*, 20(2), 321–340. <https://doi.org/10.1007/s11097-020-09712-z>
45. Schwartz, S. J., Meca, A., & Petrova, M. (2017). Who Am I and Why Does It Matter? Linking Personal Identity and Self-Concept Clarity. In *Self-Concept Clarity* (pp. 145–164). Springer International Publishing. https://doi.org/10.1007/978-3-319-71547-6_8
46. Segura-Robles, A., Parra-González, M. E., & Gallardo-Vigil, M. A. (2020). Bibliometric and Collaborative Network Analysis on Active Methodologies in Education. *Journal of New Approaches in Educational Research*, 9(2), 259. <https://doi.org/10.7821/naer.2020.7.575>
47. Sternad, C. (2021). When time becomes personal. Aging and personal identity. *Phenomenology and the Cognitive Sciences*, 20(2), 311–319. <https://doi.org/10.1007/s11097-020-09726-7>

48. Syed, M., & Fish, J. (2018). Revisiting Erik Erikson's Legacy on Culture, Race, and Ethnicity. *Identity*, 18(4), 274–283. <https://doi.org/10.1080/15283488.2018.1523729>
49. van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
50. van Lankveld, T., Schoonenboom, J., Volman, M., Croiset, G., & Beishuizen, J. (2017). Developing a teacher identity in the university context: a systematic review of the literature. *Higher Education Research & Development*, 36(2), 325–342. <https://doi.org/10.1080/07294360.2016.1208154>
51. Volpe, R. L., Hopkins, M., Haidet, P., Wolpaw, D. R., & Adams, N. E. (2019). Is research on professional identity formation biased? Early insights from a scoping review and metasynthesis. *Medical Education*, 53(2), 119–132. <https://doi.org/10.1111/medu.13781>
52. Wehrle, M. (2021). 'Bodies (that) matter': the role of habit formation for identity. *Phenomenology and the Cognitive Sciences*, 20(2), 365–386. <https://doi.org/10.1007/s11097-020-09703-0>
53. Wilde, N. (2021). Personal identity: birth, death and the conditions of selfhood. *Continental Philosophy Review*. <https://doi.org/10.1007/s11007-021-09546-9>

