

แนวโน้มการศึกษาด้านมืดของบุคลิกภาพการทบทวนวรรณกรรมอย่างเป็นระบบโดยการวิเคราะห์โครงข่ายดัชนีวรรณกรรม

Dark Triad Trends in Personality Studies: Systematic Review with Bibliometric Network Analysis

ชินัน บุญเรืองรัตน์¹, Toe Toe Oo²

Chinun Boonroungrut¹, Toe Toe Oo²

บทคัดย่อ

ด้านมืดของบุคลิกภาพกลายเป็นหัวข้อที่นักจิตวิทยาทางสังคมและพัฒนาการให้ความสนใจมากขึ้น อย่างไรก็ตาม การศึกษาด้านนี้ยังคงอยู่ในระยะเริ่มต้นประมาณในช่วงไม่เกิน 10 ปี ที่ผ่านมา เพื่อสร้างภาพในงานที่นักวิจัยได้ศึกษาที่ผ่านมาเพื่อหาแนวโน้มและช่องว่างสำหรับการ ศึกษาในอนาคต การวิเคราะห์ดัชนีวรรณกรรมโดยอาศัยโครงข่ายจาก 377 บทความใน Web of Science และ 171 บทความใน Google Scholar จากปีพ.ศ. 2528 ถึง 2559 ผลการศึกษาพบว่า บุคลิกภาพด้านมืดมักจะถูกตีความจาก ลักษณะ 3 กลุ่มคือบุคลิกภาพแบบ หลงตัวเอง, บุคลิกภาพแบบโรคทางจิตและบุคลิกภาพแบบแผล่เหลี่ยม ตามลำดับ เพื่อที่จะระบุ แนวโน้มในการศึกษาบุคลิกภาพด้านมืดนี้มีความสัมพันธ์กับความแตกต่างระหว่างบุคคล, ความผิดปกติทางจิตและกิจกรรมในโลกออนไลน์ รวมทั้งพฤติกรรมที่เกิดจากความคิดสร้างสรรค์ อย่างไรก็ตาม เมื่อเปรียบเทียบตามเปอร์เซ็นต์ของคำสำคัญทั้ง 3 กลุ่มแล้วพบว่า Google Scholar มีจำนวนข้อมูล ด้านมืดของบุคลิกภาพมากกว่า 1 เท่าจากข้อมูลใน Web of Science และแนวโน้มของการศึกษาเปลี่ยนจากผู้ป่วยหรือผู้ที่มีความผิดปกติทางจิตไปสู่กลุ่มบุคคลทั่วไป รวมทั้งงานวิจัยด้านอื่นๆอย่างการบริหารจัดการและการเงินตั้งแต่ปี พ.ศ. 2555 เป็นต้นมา

คำสำคัญ : ด้านมืดของบุคลิกภาพ, การทบทวนเอกสารอย่างมีระบบ, ดัชนีวรรณกรรม, การวิเคราะห์โครงข่าย

Abstract

Dark triad personality has become one of the social and developmental psychologists researchers' have recently shown a heightened interest in; however, the field of studies is in its infancy, only starting in the last decade. To visualize what the researchers' have done to address a recent trend and close the gap of knowledge is the aim of the present study. A systematic review

¹ Ph.D. candidate in general psychology, School of Psychology, Central China Normal University email: b.chinun@gmail.com

² Assistance Lecturer in educational psychology, Department of Educational Psychology, Sagaing University of Education email: toe.oo@yahoo.com

with a bibliometric network analysis (1985-2016) was used with 377 articles from the Web of Science and 171 articles from Google Scholar. The results showed that dark triad personality was interpreted into 3 cluster triads; Narcissism, Psychopathy and Machiavellianism respectively. To address the trend of the study, dark triad studies have been associated with individual differences, psychological disorders and cyber activities including some inventory and creative behaviors; however, comparing the occurrence percentage, Google scholar's database provided a greater number of dark triad key terms than Web of Science. The study trend (since 2012) has changed from mental illness patients and abnormal psychology factors to various groups of normal people including management and finance.

Keywords: Dark triad personality; Systematic Review; Bibliometric; Network Analysis

Humans have never been perfect. We are all compounded from many kinds of bad characters namely called 'Dark Triad'. In the dark traits of personality as described by three clusters of consisting of reckless and selfish psychopathy, grandiose and entailed narcissism, and strategically manipulative Machiavellianism (Jones, 2013). In the 10 years review of Furnham, Richards, and Paulhus (2013) explained the concepts and empirical studies into those three clusters of socially-aversive personality and also suggested the gap of knowledge for the further study. Although there are clearly citations to the first group of researchers such as Paulhus and Williams who raised the dark side studies in 2002 and now there are at least approximately 400 cited times, the literature in detail cannot be addressed but focused in various issues according to the researchers' interest.

As a result of the dark side of personality has had studying on human behaviors; many studies examine the relationship among the dark traits with multidiscipline ranging from healthcare disorders to creativity and morality

to religions (Jonason, Zeigler-Hill, & Okan, 2017). The original of dark triad concept is organized drawing between normal and abnormal personality. Although the terms between clinical and subclinical are contrasted, subclinical covers wide rage including extreme cases especially the concepts of Narcissism and Psychopathy. These two classifications and diagnosis are remaining as psychiatric disorder as personality disorder in the DSM-IV-TR (Furnham & Crump, 2005). Contrastingly, Machiavellianism had different etiology from philosophy of a political advisor named Nicolo Machiavelli. Various questionnaires on Machiavellianism represent cynical, unprincipled and key interpersonal success (Jones & Paulhus, 2014).

Nowadays, Dark Triad Personality researchers applied questionnaires with standard and validity measurements that have been documented in many variables. In contrast to Smith's positive psychology mapping (2008) can assume and draw understanding of human strengths and human flourishing (Figure 1) (Hefferon & Boniwell, 2011). The Dark side triads should be against those domains presum-

ably. In 10 year review of Furnham et al. (2013), 5 domains are explained in occupation, education, mating interpersonal and antisocial behavior. Within those five domains, there is less special attention. Nevertheless occupational,

educational and interpersonal behaviors are the researchers' major overlap outcome domains represented by the number of articles and researches.

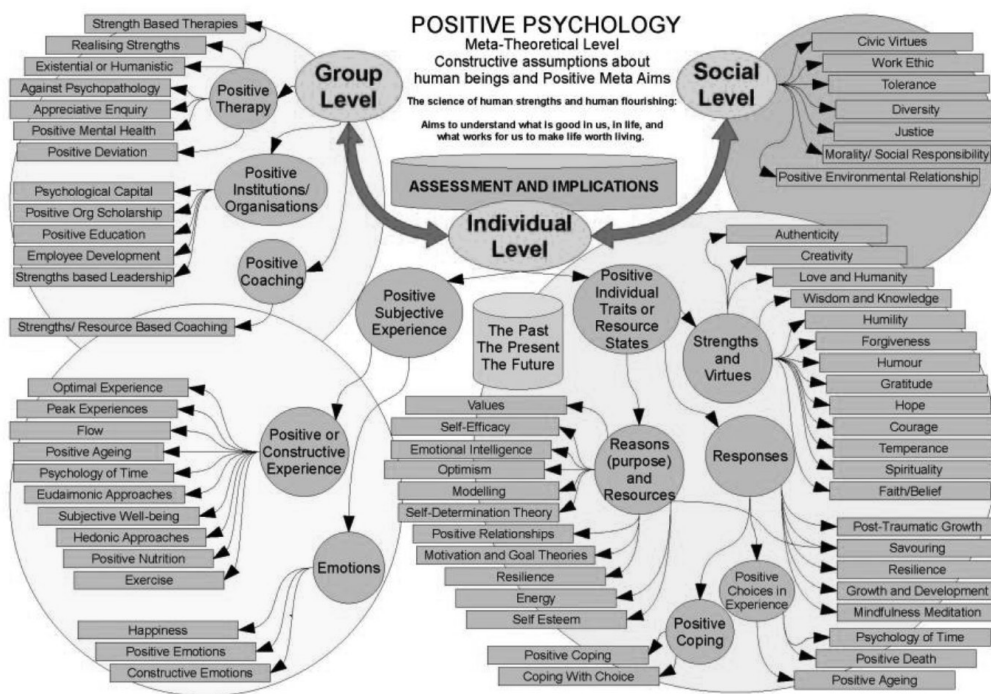


Figure 1: Smith's mid map of positive psychology (Hefferon & Boniwell, 2011)

To get the sense of the effect of the previous discourse, mapping analysis were used to construct in the present study to visualize and investigate the key-terms published in the personality domains. A systematic mapping study will classify the field of researches have done before which made summaries and evaluated the results based on reference cite data. This network-mapping diameter will calculate centrality that clarify three type of analysis; degree centrality, closeness centrality and

betweenness centrality. According to analysis-based centrality concept, (1) Degree centrality will explore impact units as nodes; in this case can be keywords on the studies field. Nodes and link between nodes showing relationship will represent researchers used keyword domains. (2) Closeness centrality analyzes and identifies closing nodes and their positions in mapping graph. (3) Betweenness centrality is analysis to be link between the group of nodes or individual nodes (Otte & Rousseau, 2002).

(1)

$$d(i) = \sum_j m_{ij}$$

$m_{ij} = 1$ when it shares connection to others, and 0 when it does not have any connection.

(2)

$$c(i) = \sum_j d_{ij}$$

d_{ij} represents the number of links from one to another.

(3)

$$b(i) = \sum_{j,k} \frac{g_{jik}}{g_{jk}}$$

g_{jk} represents the number of the shortest links from one (j) to another (k). g_{jik} is the shortest link from K to j passing another one.

According to Kitchemham and Charters' performance type of analysis that can be used especially to generate the overview of the interesting field (Keele, 2007). The researchers' trend of dark triad personality studies will be explored in the present study. In addition, the gap of knowledge can be investigated from the mapping the current state of research in the future.

In the present study, it aims to review systematically the trend of dark triad personality studies among the previous studies using the network analysis and explore two databases as a searching guideline use for researchers in social psychology.

Method

Databases

Search Strategy and Selection Criteria

The data was collected from two database platforms; Web of Science database (WoS) of Thomson Reuter and Google Scholar (GS). WoS, firmly ISI Web of Knowledge, and GS were found less overlap in citation in fact of GS produced as largely more than twice.

Contrastingly, WoS provided only citations to journal published in ISI listed journals (Meho & Yang, 2007); GS captured a wide range of academic works including book and book chapters, conference papers and doctoral dissertations. Working or conference paper and research in GS provides a more comprehensive picture of resent impact in Social Sciences and Humanities (Meho & Yang, 2006).

377 WoS articles were searched in the present study. Bibliographic data including title, keywords and abstract from All Databases and Core Collection have been analyzed. 171 GS articles were collected authors, titles and citation. Both database use time span from 1985 to 2016. Boolean logic search techniques with the 'dark* AND personality' search words were used from web of science either All Database or Core Collection. Only Articles in human behavior, sciences and psychology published were included. The emerging fading themes the WoS web-based algorithm implemented was used to make identification. Dark behaviors related to non-human activities are excluded. These search terms are appeared in search engine.

1) 'Dark AND personality' and 2)"dark triad personality" OR "dark triad of personality" OR "dark personality" OR "dark-triad personality" OR "dark triads personality" OR "dark triads of personality" OR "dark-triads personality" OR "dark side of personality"

Tool Used

VOS viewer application leading Bibliometric and Systematic mapping study (SMS) has mapped the network of published terms used in those databases. Bibliometric analysis classified the important data based on the number of occurrences and citation counts (Kear & Colbert-Lewis, 2011). Bibliometric analysis named hammer nails project, network analysis interface for literature studies and a cloud-based citation data service identified their in-degree, total citation count with PageRank scores had processed (Knutas, Hajikhani, Salminen, Ikonen, & Porras, 2015).

Haring's Publish or Perish application was run to sequence of publications with citation ranked from GS database (Harzing, 2010; Lacasse & Hodge, 2017). 50 top cited Researches articles with keywords were retrieved. WoS Literature systematic review identified an analysis on the reference topic terms provided

from Web of Science. The analysis ranked frequency the important journals, and studying keywords in the dataset based on the number of occurrences, citation and reference counts. The keyword citation network of the given records is created and used to identify the important papers according to their in-degree, total citation count and PageRank scores. Moreover, the analysis finds also often-cited references that were not included in the original dataset downloaded from WoS.

Results

A total of 377 related articles were found in all database with topic and title keyword network showed 108 keywords from 9921 terms classified into 3 clusters (Figure 1); Cluster 1 (yellow & red nodes) is dominated by dark triad psychopathology, Cluster 2 (cyan nodes) was individual approach and in cluster 3 (green nodes) affect and response were mapped. The Node size represents number of occurrences and their links represent co-occurrence relationship. In Figure 1 indicated the dark triad with subclinical aspects has been beginning continually to study since 2010 although this topic has started since the last decade (cyan to red).

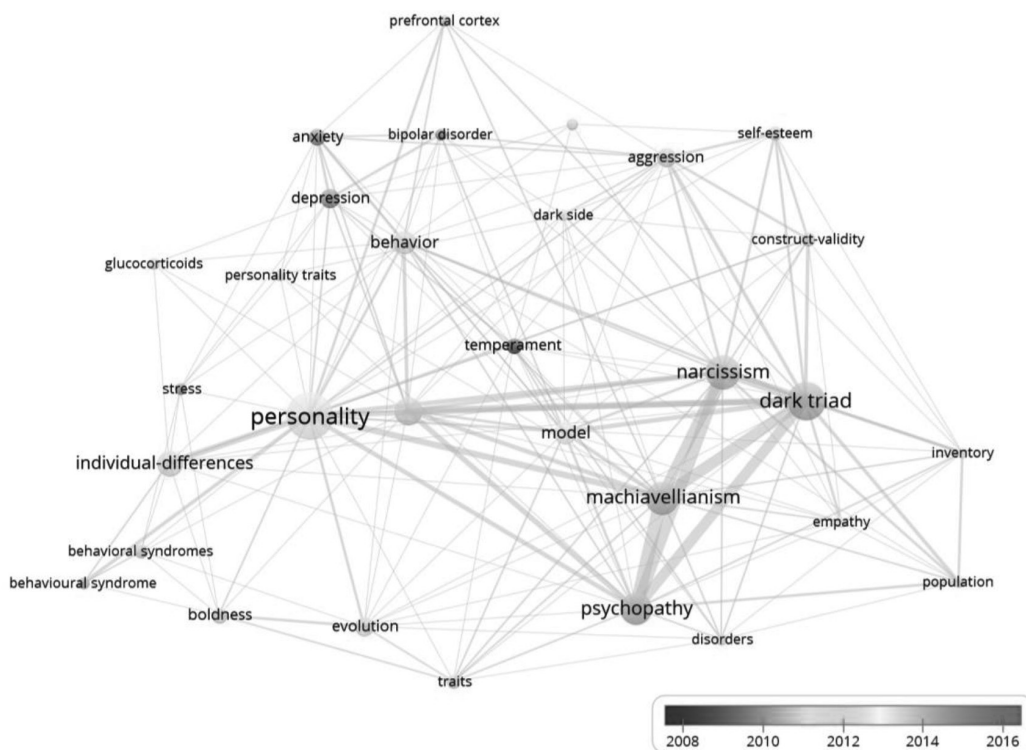


Figure 2 Titles and Abstract Keywords Network from Core Correction

In the top 50 GS cited articles, 224 keywords were found and categorized by year published; before 2009, 2009 – 2012 and after 2012. The number of articles showed that dark triad becomes increasing from 19, 32 and 114 respectively excluded 6 articles with no date reference. Comparing the occurrence percentage of the main 3 –cluster triads between WoS and GS showed that the number of articles in GS is more almost one time in those triads (figure 3). Half of the articles in GS were described in 3 clusters of dark triad personality leading topic same as the data in WoS compar-

ing between GS and WoS is 74% and 13.5% in Dark triad, 50% and 21.2% in Psychopathy, 46% and 18.3% in Machiavellianism, 44% and 23.1% in Narcissism (figure 4). The number of GS and WoS occurrence percentage are different significantly at level .03 ($t = 3.896$). Models and measurements like HEXACO and Big Five Model were applied in at least 18 GS articles. Moreover, keywords as prejudice social dominance, violence and twin study were found in GS. Interestingly, there were articles related innovative behavior and cyber activities such as Facebook and Twitter in this study.

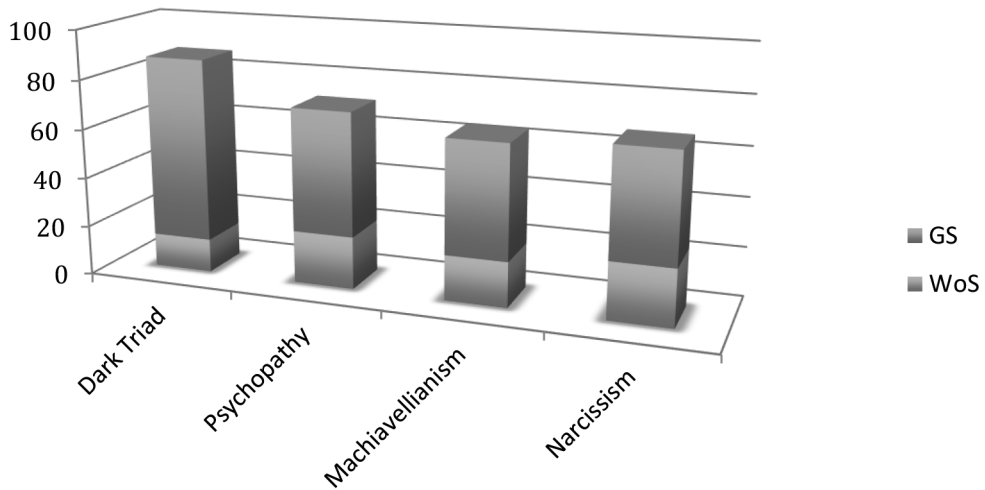


Figure 3. Most Occurrence in Dark Triad Percentage between WoS and GS

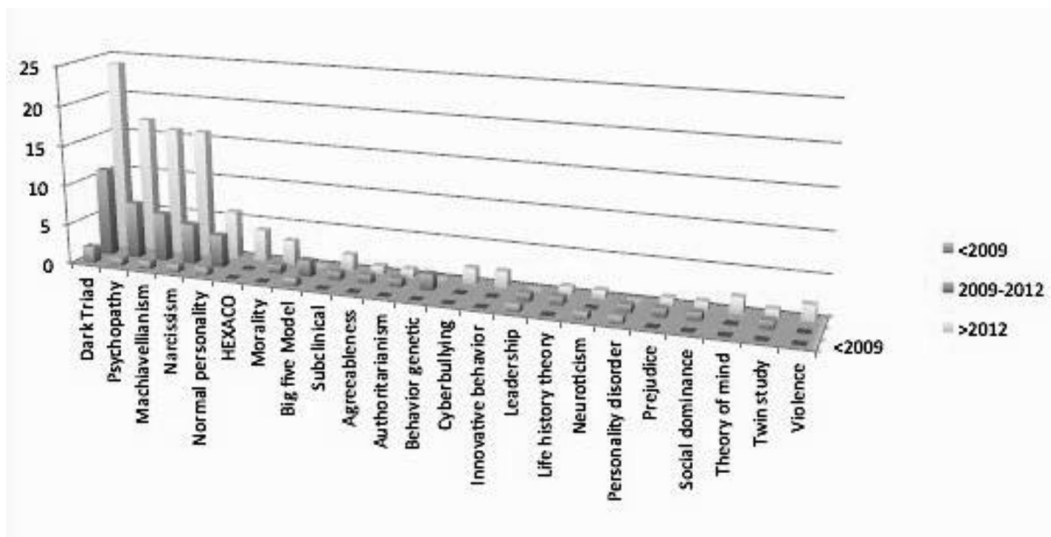


Figure 4. Keywords ranking from 50 top citation articles in GS

Discussions

Using the SMS and Bibliographic technique, the study examined key terms used in personality studies that can be categorized into main 3-cluster triads including individual differences and patient's appearances. The keywords have emerged in the present results

important research topics in the field of dark triad in the recent year. Much effort has been done to examine the relationship between personality and individual differences which link to some psychology disorders including personality triads as important big nodes among dark triad and disorders (Oluf & Furnham, 2015).

The number of articles and keywords found between WoS and GS in the present study is not different from the previous articles for a definition of usage and citation (Franchet, 2010; Moed, 2012). GS database contents more and various types of writings that were similar with the comparison of dark triad, Psychopathy, Machiavellianism and Narcissism. Narcissism and Psychopathy were ranked in the most interesting of researcher according to the number of keywords addressed.

The findings reported in this study supports previous empirical studies showing the pathology personality is one conceptualized as constellations of normal personality traits leading to some impairments in interpersonal abilities (Jonason et al., 2017). The finding showed the emerging literature on the hybrid model of personality disorders. The finding also showed a perspective to this literature review because

some nodes overlapped each other. In the mapping, it also carry an possibility for further researcher to make predictor factors to some disorders at least some symptoms (Stead & Fekken, 2014). with integrating the future finding to the science of personality.

According to the present results, it has shown the development in this field of study since it first introduced by Paulhus in 2002 (Jones & Paulhus, 2014; Paulhus & Williams, 2002). To address the gap of knowledge, researches can develop measurements to study the underlying influences including to explore relationship of this dark triad personality to a variety of knowledge area, not only abnormal psychology but management and financial behavior. The further researches can prove and fulfill valuables in studying and making a better understanding of personality studies and social psychology.

References

- Franceschet, M. (2010). "A comparison of bibliometric indicators for computer science scholars and journals on Web of Science and Google Scholar". *Scientometrics*. 83(1): 243-258.
- Furnham, A., & Crump, J. (2005). "Personality traits, types, and disorders: an examination of the relationship between three self-report measures". *European Journal of Personality*. 19(3): 167-184.
- Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). "The Dark Triad of personality: A 10 year review". *Social and Personality Psychology Compass*. 7(3): 199-216.
- Harzing, A.-W. (2010). *The publish or perish book: Tarma software research Melbourne*.
- Hefferon, K., & Boniwell, I. (2011). *Positive psychology: Theory, research and applications*: McGraw-Hill Education (UK).
- Jonason, P. K., Zeigler-Hill, V., & Okan, C. (2017). Good v. evil: Predicting sinning with dark personality traits and moral foundations. *Personality and Individual Differences*, 104, 180-185.
- Jones, D. N. (2013). "What's mine is mine and what's yours is mine: The Dark Triad and gambling with your neighbor's money". *Journal of research in personality*. 47(5): 563-571.
- Jones, D. N., & Paulhus, D. L. (2014). "Introducing the short dark triad (SD3) a brief measure of dark personality traits". *Assessment*. 21(1): 28-41.
- Kear, R., & Colbert-Lewis, D. (2011). "Citation searching and bibliometric measures resources for ranking and tracking". *College & research libraries news*. 72(8): 470-474.
- Keele, S. (2007). Guidelines for performing systematic literature reviews in software engineering Technical report, Ver. 2.3 *EBSE Technical Report*. EBSE.
- Knutas, A., Hajikhani, A., Salminen, J., Ikonen, J., & Porras, J. (2015). *Cloud-based bibliometric analysis service for systematic mapping studies*. Paper presented at the Proceedings of the 16th International Conference on Computer Systems and Technologies.
- Lacasse, J. R., & Hodge, D. R. (2017). "Ranking Disciplinary Journals with the Google Scholar H-index". *Journal of Social Work Education*. 47(3): .
- Meho, L. I., & Yang, K. (2006). A new era in citation and bibliometric analyses: Web of Science, Scopus, and Google Scholar. *arXiv preprint cs/0612132*.
- Meho, L. I., & Yang, K. (2007). "Impact of data sources on citation counts and rankings of LIS faculty: Web of Science versus Scopus and Google Scholar". *Journal of the american society for information science and technology*. 58(13): 2105-2125.
- Moed, H. (2012). The use of big datasets in bibliometric research. *Research Trends*, 30, 31-33.
- Oluf, G.-A., & Furnham, A. (2015). *The relationship between bright-and dark-side personality traits*. *Personality and Individual Differences*, 87, 206-211.
- Otte, E., & Rousseau, R. (2002). "Social network analysis: a powerful strategy, also for the information sciences". *Journal of information Science*. 28(6): 441-453.

- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of research in personality*, 36(6): 556-563.
- Stead, R., & Fekken, G. C. (2014). *Agreeableness at the Core of the Dark Triad of Personality*. *Individual Differences Research*, 12.