SCIENTOMETRICS AND BIBLIOMETRICS OF THE PERSON-CENTERED APPROACH AND GESTALT THERAPY FIELD IN BRAZIL: ANALYSIS OF AUTHORSHIP AND PRODUCTION NETWORKS

Scientometric and bibliometric of the Person-Centered Approach and Gestalt Therapy field in Brazil: analysis of authorship and production networks

Cientometría y bibliometría del campo del Enfoque Centrado en la Persona y Terapia Gestalt en Brasil: análisis de redes de autoría y producción

Resumo: Segundo uma perspectiva cientométrica, objetivamos analisar as produções e relações da Abordagem Centrada na Pessoa (ACP) e da Gestalt-Terapia, para entender como esse campo está organizado no Brasil. Inicialmente, explicamos as noções de cientometria e campo, segundo Bourdieu. Em seguida, apresentamos o método bibliométrico empregado conforme a linguagem R, a partir do seu pacote Bibliometrix e o que desenvolvemos como uma nova função para coletar metadados. Os resultados e discussões apontam para: uma ampliação de publicações entre 2008-2017, em decorrência das recentes expansões educacionais, de periódicos (virtuais) e eventos acadêmicos fenomenológicos; variedade de revistas de orientação humanista e geral, sendo as duas mais producentes sediadas em instituições gestálticas extra-acadêmicas; ocorrência da Lei de Lotka, em que poucas pessoas constantemente publicam muitos estudos sobre ACP e Gestalt-Terapia, enquanto muitos outros autores publicam ocasionalmente; fatores de dominância mesclados entre autores consolidados no campo e novas figuras de produção; existência de nove grupos isolados, dois pares de grupos inter-relacionados e uma predominância de grupos com produções pontuais. Concluímos com sugestões para outras pesquisas no campo e uma metanálise sobre a Gestalt-Terapia Centrada na Pessoa.

Palavras-chave: Bibliometria; Gestalt-Terapia; Indicadores Científicos; Psicologia Humanista; Terapia Centrada no Cliente.

Abstract: According to a scientometric perspective, we aim to analyze the productions and relationships of the Person-Centered Approach (PCA) and Gestalt-Therapy, to understand how this field is organized in Brazil. Initially, we explain the scientometry and field notions, according to Bourdieu. Then, we present the bibliometric method used according to the R language, from your package Bibliometrix and what we have developed as a new function for collect metadata. The results and discussions points to: publications extension between 2008-2017, as a result of recent educational expansions, (virtual) journals, and phenomenological academic events; variety of humanistic and general journals, being the two most productive ones linked to extra-academic gestalt institutions; occurrence of Lotka's Law, in which few persons constantly publish many studies on PCA and Gestalt-Therapy, while many other authors occasionally publish it; dominance factors mixed between authors consolidated in the field and new production figures; existence of nine isolated groups, two pairs of interrelated groups and a predominance of groups with few productions. We conclude with suggestions for further researches in the field and a meta-analysis on Gestalt-Therapy Centered in Person. **Keywords**: Bibliometric; Gestalt Therapy; Science Indicators; Humanistic Psychology; Client Centered Therapy.

Resumen: De acuerdo con una perspectiva cientométrica, tenemos como objetivo investigar las producciones y relaciones del Enfoque Centrado en la Persona (ECP) y de la Terapia Gestalt, para comprender como este campo está arreglado en Brasil. Al principio, explicamos los conceptos de cientometria y campo, según Bourdieu. Luego, presentamos el método bibliométrico empleado según el lenguaje R, a partir del paquete Bibliometrix, el que desarrollamos como una nueva función para recoger los metadatos. Los resultados y discusiones señalan para: una extensión de las publicaciones entre 2008-2017, en virtud de las recientes ampliaciones educacionales, de periódicos (virtuales) y eventos académicos fenomenológicos; una variedad de revistas de orientación humanista y general, siendo las dos con más producciones con sede en instituciones gestálticas extra-académicas; aparición de la Ley de Lotka, en que pocas personas constantemente publican muchos estudios, acerca del ECP y Terapia Gestalt, mientras muchos otros autores publican ocasionalmente; factores de dominancia mezclados entre autores consolidados en el campo y nuevas figuras de producción; la existencia de nueve grupos individuales, dos pares de grupos interrelacionados y una predominancia de grupos con producciones puntuales. Concluimos con sugerencias para otros estudios en campo y un metanálisis sobre la Terapia Gestalt Centrada en la Persona.

Palabras clave: Bibliometria; Terapia de Gestalt; Indicadores de la Ciencia; Psicología Humanista; Terapia No Dirigida



Heitor Blesa Farias** (Universidade Federal de Minas Gerais)

* Psychologist, Doctor in Psychology, Professor at the Universidade Federal do Ceará. Institutional Address: Avenida da Universidade, 2762, Benfica, Fortaleza, Ceará, Brazil. CEP: 60.020-180. E-mail: pauloccbranco@gmail.com. Orcid: https://orcid.org/0000-0003-4071-3411

** Psychologist, Graduate Student in Psychology: Cognition and Behavior at the Universidade Federal de Minas Gerais. Institutional Address: Avenida Antônio Carlos, 6627, Pampulha, Belo Horizonte, Brazil. CEP: 31270-901. E-mail: h_heitor@hotmail.com Orcid: https://orcid. org/0000-0002-8090-4012





Introduction

With the internet and the information storage's technological progress, it is possible to observe the development of virtual databases (libraries) which bring together and make available various scientific journals that publish articles related to many fields of knowledge. From the 1990s and specially from the first decade of the 2000s until the present day there is a densification of informations which became free, public and available for sharing, accessing and promoting (Bufrem & Prates, 2005; Zambrano-Gonzalez, Ramiro-Gonzalez & Almanza, 2018). In this sense, an academic practice is constituted that regiments the criteria of validation for the circulation of this knowledge, everything according to editorial processes and periodical evaluations through the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). Therefore, there is a socio political dimension which goes through this whole picture (Silva, Hayashi & Hayashi, 2011), whether for its link with the Ministries of Education and Science and Technology in order to receive support regarding the organization, or for the social bias that composes the relationships between researchers, research groups and associations, which organize themselves to produce knowledge in a certain field of study.

As a development so to investigate the content of these informations, it is possible to perceive the propagation and the development of bibliographic/bibliometric methods (Bicudo, 2014; Pinheiro & Cruz, 2014) – such as the systematic literature review, the narrative review, meta-analysis, retro-analysis, mega-analysis, meta-synthesis – in order to gather and analyze data in databanks, with the purpose of quanti and qualitatively establishing statistic descriptions and inferences, so to consider how does a specific type of knowledge circulates in the scientific scene. Whereas in the current editions and volumes of psychology journals, it is increasingly possible to find articles which analyze the production of some knowledge, according to one of the mentioned methods – mainly systematic review.

This methodological tendency and the non-stopping accumulation of informations derived from constant publications turns the treatment and mapping of what is being produced and organized in terms of circulation of a certain psychological knowledge a much more complex work, specially when, not seldom, a specific knowledge is close to another (Bourdieu, 2004). In this case, we argue that the humanistic scene of production and circulation of scientific knowledge is not alien to this reality. Specially due to the reason that, in Brazil, it is common to associate, mix and articulate various and different philosophical and psychological-humanistic, phenomenological and existential tendencies around a common denominator (Holanda, 2014; Castelo-Branco, Matos, Sampaio & Amaral, 2017). Indeed, it is possible to notice this tendency in recent national works which systematically review the above mentioned tendencies in their applied fields, in the journals which publish them, and in their services of therapeutic approaches (Holanda & Karwowski, 2004; Holanda, 2009; Souza & Souza, 2011; DeCastro & Gomes, 2011; Castelo-Branco & Andrade, 2011; Scorsolini-Comin & Santos, 2013; Véras & Rocha, 2014; Sacomano & Faria, 2014; Castelo-Branco, Farias, Carpes & Leite, 2015; Scorsolini-Comin, 2015; Sacomano, Faria & Ferrete, 2016; Dourado, Moreira & Melo, 2016; Castelo-Branco, Farias & Leite, 2017; Castelo-Branco & Cirino, 2017a; Castelo-Branco & Carpes, 2017; Costa, 2017).

From this scientific combination, two approaches are officially considered humanistic according to the Division 32 of the American Psychological Association (APA), which are highlighted as representatives of this knowledge in the US and Brazil. We are making reference to the Person-Centered Therapy (PCT) and Gestalt-Therapy (GT), which were already studies in two systematic reviews that have described and thought about the circulation of this knowledge in Brazil (Castelo-Branco & Cirino, 2017a; Castelo-Branco & Carpes, 2017). Based on this, according to a scientometric and bibliometric perspective we have the objective of analyzing how the humanistic field of PCT and GT is being organized according to authors and groups that produce knowledge about them through article publication and scientific journals.

It should be also highlighted that scientometrics is a design of bibliometric research that is widely used in areas such as the Informational Science and that it can be used in the most diverse fields of scientific knowledge, including psychology (Krampen, 2016). In short, this perspective of research goes from the measurement and interpretation of semantic relations based in bibliographic materials available on the web, in order to understand the development of scientific activities. Thus, it should be understood that scientometrics implies a sociology of science which investigates the field of both production and circulation of knowledge, according to what their authors organize and disseminate (Bufrem & Prates, 2005; Silva et al., 2011).

According to Bourdieu (2004), the term *field* indicates a relative autonomy regarding an intellectual-scientific community, which relates to other broader social groups and influences. This community has rules and constitutive rituals of a relational system, with its own properties and acquired positions, which



give value to ideas, texts and practices of their agents, be them people, groups or schools of thought¹. Inside the field, in this humanistic case, there are authorities which gather a symbolic capital endowed with competence and search for legitimacy. This recognition only comes from the pairs that integrate the same ground and, additionally, who work for accumulation of symbolic capital to strengthen a field.

Method

In order to produce a scientometrics of the academic works on Person-Centered Therapy and on Gestalt-Therapy as well as how their authors organize the field, we chose for the bibliometric method, according to a descriptive outline, in order to analyze the published papers in journals hosted in the following databases: the Scientific Electronic Library Online (SciELO) and the Portal de Periódicos Eletrônicos em Psicologia (PePSIC). Those databases were chosen for the following reasons: they were the virtual libraries used in systematic literature reviews employed by other researches which have analyzed the above mentioned approaches (Castelo-Branco & Cirino, 2017a; Castelo-Branco & Carpes, 2017); those are virtual databanks widely validated and spread in the national academic scene, in which SciELO congregates the highest number of open-access and free journals in the world (Packer, Cop, Luccisano, Ramalho & Spinak, 2014) and in which PePSIC is a source for the Virtual Library on Health - Psychology of the Latin-American Union of Psychology Organizations, which uses the same system as SciELO, however restricted to psychology journals. Both are distributed in Brazil, in Latin-American and lusophone countries, showing representativity regarding the circulation of articles in the national psychology.

In this sense, so to go forward in the studies of Castelo-Branco and Cirino (2017a) and Castelo-Branco e Carpes (2017), the articles were (re)gathered, articulated and updated (from 2014 to 2018), from the same keywords related to PCT² and to GT³, in the index of subjects of SciELO and PePSIC. Authorship, institutional affiliations, abstracts and keywords were stored and organized according to the bibliometric indicators of: 1) *scientific production*, computed by the number of published articles, journals, authorship and institutional affiliation; 2) *connection*, composed by the co-occurrence of authorship. In short, these bibliometric indicators represent the quantitative element of the analytical/descriptive process of the studied humanistic field, and the researchers' reflections imply a qualitative bias that contributes with inferences about the structure and organization of this field in its social, historical and political manifestations (Kobashi & Santos, 2008). Indeed, by crossing the gathered data, we have mapped an expression of the national humanistic field of PCT and GT.

To gather and analyze the bibliometric data, we have used the *Programming Language R* (3.5 version). *R* is a statistical, free, open-access and programmable software that provides many packages to be downloaded. From those we have employed the statistical package *Bibliometrix* (Aria & Cuccurullo, 2017) which had initially among its functions the possibility of importing bibliographic data from the Elsevier's SciVerse Scopus base, in order to map the scientific performances through the analysis of citations, partnership between authors and correlations of words/keywords used in the texts (Rodrigues & Ziegelmann, 2011). Considering the databases that we have selected, we have used another package named *R-SciELO*⁴, directed to importing the available data of this virtual bank. However, as a consequence of this research's purposes, it was necessary to develop a new application related to PePSIC, due to the inexistence of a R package to specifically do this. Overcoming this limitation, we have elaborated a function in order to import PePSIC's data. We would like to point out that one way of introducing this function in R is by inserting the following commands.

```
get_PepSic<- function(url)
{
    if (!is.character(url))
    stop("O 'link' deve ser um vetor de caracteres.")
    page <- rvest::html_session(url)
    if (httr::status_code(page) != 200)
    stop("Artigo nao encontrado.")
    article_id <- strsplit(url, "=|&")[[1]][4]
    sprintf("http://pepsic.bvsalud.org/scieloOrg/php/articleXML.php?pid=%s&lang=en",
        article_id) %>% get_xml_article()
```

¹ We would like to highlight that the notion of field employed in this research is restricted to the sociology of science thought by Bourdieu, and does not refer to the Field Theory developed by Kurt Lewin and adopted by the gestalt therapists.

² In SciELO: Carl Rogers, Terapia Centrada no Cliente, Abordagem Centrada na Pessoa, Terapia Não-Diretiva, Psicoterapia Humanista, Psicoterapia Humanista-Fenomenológica, Psicologia Humanista, Psicologia Humanística e Plantão Psicológico. In PePSIC: Carl Rogers, Carl Rogers's Theory, Teoria Rogeriana, Abordagem Centrada na Pessoa, Terapia Centrada no Cliente, Terapia Centrada en el Cliente, Terapia Centrada na Pessoa, Terapia Centrada em la Persona, Psicoterapias Humanistas, Psicologia Humanista, Psi

³ In SciELO: Gestalt-Terapia, Gestalt Terapia, Abordagem Gestáltica e Gestalt. No PePSIC: Gestalt-Terapia, Gestalt Terapia, Gestalt--Terapia de Curta Duração, Abordagem Gestáltica, Grupos Gestálticos, Gestaltpedagogia e "Gestalt".



Where the function *get_xml_article* was imported from the *R-SciELO* package and altered regarding the titles of the variables so the configuration of the imported data was compatible to the one demanded by the *Bibliometrix* package. The variable *url*, in the presented function, concerns the *link* of the article whose metadata of the PePSIC's bank one wants to collect. It should be also highlighted that these commands, until now unprecedented, can be applied to other types of scientometric and bibliometric researches in PePSIC.

It should also be clarified that the productions were selected according to the following inclusion criteria: be published in portuguese and in national journals, independent of the author's nationality; present as content any theoretical or practical discussion or research related to PCT and/or GT. Repeated articles were discarded and registered only once.

Despite some critiques which may be directed to the exposition, description and evaluation of the national humanistic field, in its patterns of performance and scientific impact, we would highlight that the proposed bibliometrics uses public data of open access, including, sometimes, visits to some Lattes' profiles, available in the Lattes Platform - another public and free access database managed by the National Research Council (CNPq). This implies the supposition that there is a mutual responsibility between authors which published and informed their knowledge in the above mentioned mechanisms of scientific disclosure/information and the researchers which used those sources (Silva et al., 2011).

Results and Discussion

In order to analyze how the mentioned humanistic field is organized in Brazil, we have initially admitted the amount of articles published on PCT and GT, from 1997 to 2018, as expressed in the table number 1. It should be highlighted that the year of 1997 refers to the period in which the oldest work was computed on the investigated bases; and the year of 2018 the current year, in which it was possible to collect the data.

Year	Frequency	%
1997	1	0.5
1998	1	0.5
2002	1	0.5
2003	1	0.5
2004	5	2.48
2005	4	1.98
2006	6	2.97
2007	8	3.96
2008	10	4.95
2009	21	10.39
2010	9	4.45
2011	12	5.94
2012	18	8.91
2013	9	4.45
2014	38	18.81
2015	19	9.40
2016	21	10.39
2017	15	7.43
2018	3	1.49
Total	202	100.00

 Table 1

 Published Articles about PCT and GT in Brazil.

Source: authors' own creation.



We have observed that from 2008 until 2017 there was a great increase of humanistic publications regarding PCT and GT, in the sense of existing a greater numerical constancy; while 2018 did not express this, probably for being the current year in which the data was collected (more specifically during july). Considering that this year was not over in the writing process of this article, and that many journals sometimes delay the publication of the edition/volume in the planned periodicity, we understand that this increase/constancy may continue despite the result that was indicated. Based on this, we infer that the investigated humanist field was organized in more productive terms from 2008 on. Some conditions might have collaborated with this phenomena.

Possibly, the first relates with the expansion of the university education in Brazil, that occurred between 1995 and 2010 (Mancebo, Vale & Martins, 2015), which fostered a considerable increase of: higher education institutes; graduate programs (master and doctoral); scientific journals (which became virtual and free for access only in the last decade); and public notices for fostering research. In this expansion lies surely many PCT and GT scholars, which found in this scene a fruitful space to improve and institutionalize themselves and develop their knowledge regarding those mechanisms of scientific formation and transmission.

The second, according to the studies of Castelo-Branco and Cirino (2017a) and Castelo-Branco and Carpes (2017), refers to the advent of the I South Brazilian Congress of Phenomenology, in 2009, currently linked to the Brazilian Congress of Psychology and Phenomenology, a still acting event which consolidated, so we claim, a physical and symbolic space of communion and discussion between researchers related to the national humanist field. Besides, there was the creation and consolidation of research groups linked to the National Association of Research and Graduate Studies (ANPEPP) - scientific and political organization of a notorious national recognition. We specifically point out to the working group *Psychology and Phenomenology* (in 2014 and 2016 under the coordination of the professors Adriano Holanda and Elza Dutra, and in 2018 under the coordination of the professors Adriano Holanda and Tommy Akira Goto). In these two groups it is possible to find various PCT and GT scholars, existing even other researchers of the field in various groups of the ANPEPP, such as, for example, the groups *History of Psychology, Psychology of Sport and Youth, Resilience and Vulnerability*.

In the meanwhile were still created organizations from other research groups (for example, linked to the Directory of Research Groups of CNPQ) and national events, impossible to be mentioned in the limits of this paper, however not less important for the consolidation of the mentioned field. What we intend with those examples, in short, is to argue that these two conditions are inserted in a change regarding the national academic culture that increases the imperative of organization and propagation of science.

In this direction, we will now specifically analyze a mechanism for knowledge propagation much acclaimed by the academic discourse, namely, the scientific journal. This is validated inside the field and endowed with the highest symbolic capital for being able to bring to authors access to a new and relevant knowledge, provided with scientific credibility by editors, authors and researchers of a certain area of knowledge (Bufrem & Prates, 2005). The journals are also under a constant evaluation by CAPES, which increases its credibility as a valid mechanism of organization and propagation in national science (Trzesniak, 2009). Thus, we present in the following the table 2, which indicates the scientific journals that published articles related to PCT and GT in the comprised period.

Journal	Frequency	%
Revista da Abordagem Gestáltica	67	33.17
IGT na Rede	39	19.31
Estudos e Pesquisas em Psicologia	23	11.39
Revista do NUFEN	20	9.9
Contextos Clínicos	6	2.97
Psicologia: Ciência e Profissão	5	2.48
Estudos de Psicologia (Campinas)	4	1.98
Temas em Psicologia	4	1.98
Arquivos Brasileiros de Psicologia	3	1.48
Psicologia em Estudo	3	1.48
Psicologia: Teoria e Pesquisa	3	1.48
Boletim de Psicologia	2	0.99
Imaginário	2	0.99
Journal of Human Growth and	2	0.99
Development	2	0.99
Revista da SPAGESP	2	0.99
Outros	17	8.42
Total	202	100.00
Source: authors' ow	vn creation	

Table 2			
National	Journals that	published Articles	on PCT AND GT

Source: authors' own creation.



Again in line with the studies of Castelo-Branco and Cirino (2017a) and Castelo-Branco and Carpes (2017), the journal Abordagem Gestáltica, currently named Phenomenological Studies - Revista da Abordagem Gestáltica (Qualis CAPES Psychology B1), is the journal that most brings together works related to PCT and GT. This journal is allocated in the Instituto de Treinamento e Pesquisa em Gestalt-Terapia, in Goiânia, and is editorially oriented with focus and scope to publish articles related to the humanist, phenomenological and existential field. What draws attention and was not pointed out by the mentioned authors was the Journal IGT na Rede (Qualis CAPES Psychology B4), linked to the Institute of Gestalt-Therapy and Family Care, based in Rio de Janeiro. This journal has the focus and scope directed to specifically publish articles related to GT¹, different from the Phenomenological Studies - Revista da Abordagem Gestáltica. Different from the study of Castelo-Branco and Carpes (2017), we highlight that the journal IGT na Rede has not entered in the systematic review employed by those authors, for it was only recently indexed in PePSIC. For this reason, now, the Journal IGT na Rede is presented as new data. Although those two journals allow an academic impulse for the national humanistic field, it is interesting to note that both of them are not based in universities, whereas they are related to authors which are linked to them, to regulation agencies (such as CAPES), and indexers (such as PePSIC), which enable the propagation of national humanistic knowledge.

Indeed, it is evident a constitutive and historical tension that is familiar to the constitution and consolidation of the field in the US and Brazil, namely the conflict between the development of a knowledge inside the university (in an academic circuit) and outside it (in an extra-academic field). Humanistic exponents such as Carl Rogers (1961/2009) and Fritz Perls (1969/1979), for example, have observed this tension when erecting their knowledge. In a certain way, Rogers tended to the discourse of researches and foundations based in empirical studies, even after his retirement. Perls, on the other hand, was critical of the imperative of an empirical humanistic science, dedicating himself to propagate his legacy in an extra-academic scene, by consequence creating various GT institutes.

It is historically known that the reception of PCT and GT in Brazil (Gomes, Holanda & Gauer, 2004; Frazão, 2013; Castelo-Branco & Cirino, 2017b), went through this scenario, that is not necessarily concerned with the validation and dissemination of such humanistic knowledge according to scientific rules (empirical, experimental and also regarding journal publications). However, as if in a counterweight to that, we can currently observe in Brazil the emergence of many researchers/authors, journals, events and research groups that are concerned with institutionalizing and formalizing these humanistic approaches in an academic scientific framework. Curiously, were two training institutes in GT that have erected the above mentioned journals which are important mechanisms for circulation of humanistic scientific knowledge (i.e., with credibility inside the academic discourse of a valid academic knowledge), although they are allocated in extra-academic institutions.

This is the constitutive tension that remains in the national humanism. That seems to us paradoxal, for on the one hand this honors a humanistic tradition of science that requests for the scientific dictates to ground itself in a larger scene; and on the other hand, it attempts to constitute a knowledge outside the traditional scientific ties accused of reducing human experience (Krüger, 2014). In this paradox we claim to lie the potentiality and the curse of the humanistic field. Potentiality in the sense of finding creative forms of circulating inside and outside the academic/scientific field. Curse in the sense of generating a rupture inside the humanistic community in relation to what would be a valid knowledge or not; and of existing a certain distance between academic and non-academic humanists. We defend that his paradoxal dialogue must be maintained, for at the pace that a science consolidates itself, it demands more specialized work of scientific production as well as a relationship with the extra-academic field, which employs other abilities and competences to train psychologists and to re(produce) knowledge. From this emerge attempts to circulate humanistic knowledge in a space and/or in the other. The tension is in how to make this knowledge circulate between contrasting fields in terms of symbolic capital, since the responsibility for this balance falls on the humanistic communities and organizations which would need to abdicate from their preferences of what would be considered a valid knowledge or not.

In what concerns the journals *Estudos e Pesquisas em Psicologia* (UERJ), *Psicologia: Ciência e Profis-são* (CFP) and *Estudo de Psicologia* (PUC-Campinas), we indicate that despite the fact that these possess a general editorial orientation, they present a possibility for publications in PCT and GT. The *Revista do NUFEN* (UFPA), similarly to the *Phenomenological Studies - Revista da Abordagem Gestáltica*, presents an editorial orientation which focuses publications of humanistic, phenomenological and existential fields. Indeed, the researched humanistic field may circulate its knowledge in various journals specific to its area of knowledge or not. For clarification purposes, in the Table 2 we cave

¹ We consider that, according to the example of the journal Revista IGT na Rede, the creation of a journal with a specific editorial scope to publish articles in PCT would contribute to the dissemination and scientific strengthening of this approach in Brazil.



called Others all the journals which published only one article.

Once we entered the analyses of the authors which have published on PCT and/or GT, we computed a total of 262 people. Here we noticed the manifestation of a recurrent phenomenon in scientometric and bibliometric analyses regarding the proportion between authorship and publication of articles in a certain field. This is the Lotka's law, executed through the function *lotka* () in the *Bibliometrix* package, expressed in the form of the Table 3 and the Figure 1, presented in sequence.

Number of Published Articles	Number of Authors	%	
1	221	84.35	
2	22	8.41	
3	7	2.67	
4	1	0.38	
5	3	1.15	
6	2	0.76	
7	2	0.76	
8	1	0.38	
9	2	0.76	
11	1	0.38	
Total	262	100.00	





Figure 1. Lotka's Law: representation of the proportion between authors and published articles. Source: authors' own creation.

According to bibliometric theory applied in scientometrics (Alvarado, 2002), Lotka's law presupposes that there is an inversely proportional, but non-linear, distribution regarding the entry of authors in scientific productions. This distribution is always decrescent exponential and is used to indicate that, in a certain field, many authors publish few articles, while others publish many. This can be observed by the Table 3 and Figure 1. In other words, the law establishes that every scientific field is defined by a great amount of authors which perform partial entries to a certain knowledge (in this case, a humanistic knowledge), to the extent that it is also established by few authors which present a larger and more constant production. To exemplify this point, according to the Table 3 we have pointed out that 221 authors (84,35%) have only published one article in relation to the total of the analyzed productions; and this number diminishes until reaching few other authors' ratio that published more.

As a consequence of this phenomenon, after the analyses of the obtained results through the *lotka()* function in the *Bibliometrix*, we deemed it would be better, for means of examination, to rank the ten first authors with the most productive and recurrent publications in the field, so to start verifying their relational nets of production. Thus, we present in the following the Table 4 which, according to scientometric and bibliometric logic (Aria & Cuccurullo, 2017), expresses the factor of dominance of authors.



Authors	Dominance Factor (FD)	Multiple Authors	First Author	Rank by Published Articles	Rank by FD
Érico Douglas Vieira	0,86	7	6	5°	1°
Paulo C. Castelo Branco	0,67	9	6	2°	2°
Anna Karynne da S. Melo	0,67	3	2	10°	3°
Emanuel M. Vieira	0,40	5	2	9°	4°
Virginia Moreira	0,22	9	2	3°	5°
Fabio Scorsolini- Comin	0,17	6	1	7°	6°
Jorge Ponciano Ribeiro	0,17	6	1	8°	7°
Mônica Botelho Alvim	0,14	7	1	6°	8°
Georges D. J. B. Boris	0,13	8	1	4°	9°
Adriano F. Holanda	0,09	11	1	1°	10°

Table 4
 Dominance Factor in Authors that Published on PCT and GT

Source: authors' own creation.

This table is ordered according to the first ten authors ranked by the Dominance Factor (FD), which means the number of times that a researcher has published as first author, divided by the total number of works in which he had authorship. This scientometric procedure, calculated via the function *dominance* () of the *Bibliometrix* package, was used to create an index of the ratio of how a determined author has published in partnership with other researchers. For clarity, the column entitled Multiple Authors indicates the total of articles produced by each author; the column named First Author, stands for the amount of articles in which the author has published as the first name between the partnerships¹. In the fifth column we have ranked the same ten authors by the total number of articles published in PCT and/or GT. After consulting their Lattes curricula, we have established a general descriptive framework with their characteristics of working in the field of PCT and GT, according to a selective reading of the informations that were contained there.

Virginia Moreira, Anna Karynne de Melo and Georges Boris are professors at UNIFOR and coordinators of the Laboratory of Phenomenological Humanistic Psychopathology and Clinic (APHETO), located at the same institution. These three authors specifically present different productions on PCT and GT. Virginia Moreira is mentioned as a prominent figure in the transmission of post-Rogerian PCT and phenomenological studies in Brazil (Gomes et al., 2004; DeCastro & Gomes, 2011; Castelo-Branco & Cirino, 2017a, 2017b). Georges Boris has contributed to GT with the translation of Perl's first work *Ego*, *Hunger and Aggression: A Revision of Freud's Theory and Method*, and with various studies about GT, PCT, clinic and psychopathology. Anna Karynne de Melo has works on GT, psychopathology, phenomenology and existentialism, besides being in touch with PCT. These three psychologists are responsible for educating many masters and doctors in those humanistic perspectives.

Jorge Ponciano Ribeiro (UnB) presents various studies on GT and its theoretical and clinical developments, besides being considered one of the forerunners in the implementation of this approach in Brazil (Suassuna & Holanda, 2009), educating many psychologists - including two authors that will be described in the following. Adriano Holanda (UFPR) is chief editor of the journal *Phenomenological Studies - Revista da Abordagem Gestáltica*, coordinator of the Laboratory of Phenomenology and Subjectivity (LabFeno) and who also develops various studies related to PCT and GT. Mônica Alvim (UFRJ) presents many works on GT, body and art, in the clinical and community context, maintaining the dialogue with merleau-ponty's phenomenology. Those three psychologists have also in common the education of many masters and doctors in those perspectives.

Érico Douglas Vieira (UFG) presents theoretical articulations applied between GT and psychodrama, besides having studies about psychological care and themes regarding gender. Emanuel Meireles Vieira (UFPA) develops theoretical, historical and empirical studies on PCT. Paulo Castelo Branco (UFBA) coordinates the Center for Studies of Humanistic Psychology (NEPH) and elaborates theoretical, historical and applied works on PCT, GT and Humanistic Psychology in general. Fabio Scorsolini-Comin (USP-RP/ UFTM) has studies about PCT and its interfaces with positive psychology and presents various researches on themes related to Health, Religion and Family.

¹ We understand that the first or main author is the one who develops the proposal and is the responsible for the largest part of the work, carrying out more activities than the other authors who have also actively participated in the process. Co-authorship, however, does not downgrade the authors involved in the research (Sampaio & Sabadini, 2009). Besides that, in scientometrics, the factor of dominance is a bibliometric criteria that is strictly linked to the first author of the published works (aria & Cuccurullo, 2017).



Based in this brief curricular description, we observe that two authors have productions that are more specific to PCT, three to GT and five have works related to both approaches. Based on this selected part, there are humanistic figures that for a long time are circulating and are already consolidated in the field (Virginia Moreira, Georges Boris, Anna Karynne de Melo, Jorge Ponciano Ribeiro, Mônica Alvim e Adriano Holanda) and the emergence of new authors (Emanuel Vieira, Paulo Castelo Branco, Fabio Scorsolini-Comin and Érico Douglas Vieira). That means that this data indicates that the field of PCT and GT, besides being already consolidated/kept by the works of certain humanistic figures, can also be expanding and renewing itself from the development of new working figures.

In order to identify those authors in the studied field, we have attempted to understand the inter-relations between them and other people, who relate among themselves so to produce knowledge in the field. For this we have used a scientometric procedure via *Bibliometrix*, that analyzes the collaboration network and connection between the authors, showed in the following Figure 2.



Figure 2. Relational cloud of collaboration and connection between authors of PCT and GT. Source: authors' own creation.

We would also highlight that this graphic was created according to the number of 205 authors, the total amount of researchers in collaboration, i.e., that published articles in partnership with other people. For descriptive feasibility, we have selected for our analyses the figures which are central for every production group, for we understand that they serve as indicators of relational centrality (Rodrígues, Morales & Inclán, 2011). Thus, we broke down the computed production groups.

Regarding the isolated groups, we have ranked the colors of every coalition, the names of the central authors (numbers according to the graphic) and their respective institutional affiliations: a) pink, Celana Cardoso de Andrade (4) from UFG; b) orange, Henriette Tognetti Penha Morato (161) from USP-SP; c) beige, Adriano Furtado Holanda (23) from UFPR; d) purple, Érico Douglas Vieira (5) from UFG; e) light green, Elisangela Böing (76) from UFSC; f) light grey, Marciana Gonçalves Farinha (166) from UFU; g) dark green, Nilton Júlio de Faria (35) from PUC-Campinas; h) dark grey, José Célio Freire (53) from UFC; i) yellow, Virgínia Elizabeth Suassuna Martins Costa (40) from the Instituto de Treinamento e Pesquisa em Gestalt--Terapia de Goiânia. Thus, there are nine isolated groups.

Regarding the inter-related groups, represented by the color light blue, there is Mônica Botelho Alvim (43) from UFRJ and Jorge Ponciano Ribeiro (15) from UnB. Both serve as mediating indicators between



their respective producing groups. In the group painted by the color dark blue is Virginia Moreira (11) from UNIFOR, who is partner with Anna Karynne de Mello (10) and Georges Boris (9), both also from UNIFOR. Georges Boris has production relations (connection) with Emanuel Meireles Vieira (143) from UFPA, who is the relation's indicator with the group, represented by the color red, centered around Paulo Coelho Castelo Branco (86) from UFBA. We have perceived, therefore, two pairs of inter-related groups. We infer that those inter-relations, curiously, occur due to local educational links. Monica Alvim was a master and doctoral student of Jorge Ribeiro at UnB and kept academic relationships, working with him. Virginia Moreira, Georges Boris, Emanuel Vieira and Paulo Castelo Branco are graduated in institutions from Fortaleza (UFC and UNIFOR), both as undergrad as well as graduate students. Both Brasília and Fortaleza were already pointed out as important national centers of respectively education and production of humanistic knowledge in GT (Castelo-Branco & Carpes, 2017) and PCT (Castelo-Branco & Cirino, 2017a).

The groups represented by the color white are those which contain more than two authors that have published only one article, thus forming a link of co-authorship, but not enough for forming a network of inter-relations. They indicate, as was already discussed when Lotka's Law was introduced, the amount of punctual incursions of authors that published in partnership. Thus we understand that in the studied humanistic field there are few inter-related producing groups, what expresses isolation and concentration in certain humanistic figures that stimulate the productions of the field. This might occur, so we infer, by the distance between universities and by the lack of institutional partnerships and academic exchange in terms of production - despite the previously commented current academic and extra-academic scene, which might invoke many other relations not necessarily restricted to the production of articles (for example, participating in qualifying examinations, congresses/symposiums, organization of books etc.). Another possible inference is due to the absence of educational spaces of master and doctoral degrees with specific lines of research turned to the humanistic side of PCT and GT. There are professors who work with those approaches, but also work in broader research lines, generally related to phenomenology, clinic, health and society.

In the ideal plan for strengthening the group in its scientific production, it is expected that the numbered authors who are related to the central figures of every group, due to the education they had, become new central and inter-relational figures with other groups, in the sense of expanding the field by taking less punctual incursions. Another possibility of strengthening would be the organization and transmission of research lines turned to the education of researchers in humanistic psychology in graduate programs *stricto sensu*.

Final Remarks

According to a scientometric perspective, this article proposed to draw an analysis on how the field of PCT and GT is organized in Brazil according to the production of articles from 1997 to 2018, in order to understand how are those knowledges spread in the academic scene of publications in scientific journals. To do that, we have established a bibliometric methodological plan using the language R, from its package *Bibliometrix* for data analysis, and the package *R-SciELO* for gathering the online informations in SciELO's database. Inspired in this package and its methodology of gathering metadata, we have created and proposed a new function in the language R, attempting to gather PePSIC's metadata.

Thus, we have obtained and synthesized the following results and discussions. 1) There is an enlargement and constance of publications from 2008 to 2017 due to the recent political and educational developments regarding the expansion of universities (undergrad and graduate studies) and the current scientific academic organizations of events, journals (virtual) and humanistic and phenomenological research groups. 2) There is a variety of journals managed by CAPES with both humanistic and general tendencies that allow the circulation of PCT and GT. However, it should be highlighted that there is a historically constitutive tension between the academic/scientific and extra-academic organizations in spreading this knowledge. This is expressed by the journals Phenomenological Studies - Revista da Abordagem Gestáltica and the IGT na Rede, both being the most productive scientific national journals in the field, which are, however, hosted in humanistic and gestaltic extra-academic institutions. 3) We have noticed the existence of a common phenomenon to scientometrics, called Lotka's Law, which points out to an inversely proportional and non-linear distribution between the authors and the field's production. That is, few authors constantly publish many studies on PCT and GT, while many authors publish only occasionally few studies about those approaches. 4) Based on the dominance factor between authors who have published in partnership, by the rank of their productions and by the analysis of their Lattes curricula, we have briefly described how they organize their productions on PCT and GT. With this, we have observed the occurrence of humanistic figures already known in the field and also the emergence of new authors. 5) From the mapping of producing groups in the field, we have perceived the existence of nine isolated groups, two pairs of inter-related groups from the local educational links (in Brasília and Fortaleza) and the predominance of groups with punctual productions, due to Lotka's Law. This network shows that there are few producing inter-relations between the studied groups, and that there is a concentration of partnerships/productions around few humanistic authors, understood as central producing figures.



Thus, we concluded that scientometrics, beyond its applications and implications in Information Science, allows a fruitful view in understanding how does the humanistic field of PCT and GT is being organized in Brazil. However, we would like to highlight that the obtained results and the discussions here encouraged must be seen with care and as partial, for the present study presents limits by entering in this field just through the academic scope of scientific productions in national journals, indexed only in two databases between the years of 1997 and 2018 (until july). Besides, we did not go deep into the studies that articulate those two approaches, neither the themes and types of research and discussion which are developed in the computed productions, for we have focused on an analysis of the relations between authors that published in certain journals during a time. PCT and GT's humanistic field, as previously discussed, is not only organized and spread in the scene of scientific productions, as there are other bibliographic manifestations (books, thesis, dissertations), academic (congresses and symposiums) and extra-academic educational (centers/institutions)

One suggestion for overcoming those limits and better approach a broader understanding about the organization of the humanistic national field is to carry out ulterior scientometric and bibliometric researches about phenomenology and other humanistic, phenomenological and existential approaches, so to compare them to what was then obtained. Another recommendation refers to the proposition of a new (phenomenological) empirical research about the perceptions of the national humanistic field's organization starting from the experiences of the central figures and collaborators of the investigated production groups.

Although we have not focused on the possible articulations between PCT and GT, we understand that both blur Brazilian's humanistic psychology and that there are many possible dialogues between them, what amounts to the idea, possibility and circulation of person-centered gestalt therapy. In this way, facing the theoretical and practical contributions of those approaches, we indicate the necessity of more studies which develop articulations between them in order to understand in which way one knowledge can contribute to the other. At last, we indicate a meta-analysis of the first theoretical and practical results which are being produced in PCT and GT, so to assist in elaboration and systematizing this meta-approach.

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