# The contemporary development discourse:

# Analysing the influence of development studies' journals

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#### Abstract

The cross-disciplinary field of "development studies" involves a variety of scientific disciplines, mainly within the Social Sciences. Its cross-disciplinary character implies a complex process of forming a "development discourse" in which different disciplines are simultaneously proposing different —and sometimes contradictory— discourse components, and where there is —still—a "Western hegemony", despite the fact that research is mainly focused on the so-called "developing" countries.

Based on the theories of Michel Foucault, this paper studies the role and influence of academic journals in shaping the "contemporary development discourse" by means of identifying the main areas of research, the citation networks, and the most influential articles, countries and institutions. Our bibliometric analysis focuses in four "development" journals that are ranked in the *Social Sciences Citation Index* in the "subject category" of "planning and development": World Development, Development and Change, Third World Quarterly and European Journal of Development Research. The analysis for the period 2000-2015 produces four main results:

- The four journals coincide on various areas of common interest (related to aid, poverty, sustainability and development challenges), which share the same rules of formation of the development discourse.
- ii) Journals have a limited influence in shaping the development discourse because of their inability to generate "citation bursts", and the existence of a high proportion of "disconnected" articles that mostly receive self-citations.
- iii) There is a clear preponderance of the Anglo-Saxon academia in the scientific production.
- iv) In comparative terms, *World Development* stands out as the most influential journal in shaping the development discourse.

These results may be useful for authors and editors of development journals in order to paint a broader picture of the contemporary development discourse and to identify important editorial challenges and possible ways to strengthen the journals' coherence and influence in the formation of the development discourse.

**Key words.** Development discourse, development studies, World Development, Development and Change, Third World Quarterly, European Journal of Development Research.

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"I don't care who writes a nation's laws [...] if I can write its economics textbooks".

Paul A. Samuelson (1990: ix-x)

#### 1. Introduction

Development Studies (DS) is a cross-disciplinary field of study that involves a variety of scientific disciplines at different levels. While this feature might lead to ambiguity and difficulties in the dialogue across disciplines, it also helps to enable a broader understanding of the complex and multidimensional process of progress of human societies (Hulme and Toye, 2006; Sumner and Tribe, 2008; Monks *et al.*, 2017; Baud *et al.*, 2018; Tezanos and Trueba, 2018). Moreover, cross-disciplinarity involves further complexity in the process of forming a "development discourse", as different disciplines are simultaneously proposing different —and sometimes contradictory—discourse components.

The increasing integration of disciplines and discourse components in DS has been acknowledged in the renewed definition elaborated by the European Association of Development Research and Training Institutes (EADI), who considers DS as "[...] a multi- and interdisciplinary field of study that seeks to understand social, economic, political, technological, ecological, gender and cultural aspects of societal change at the local, national, regional and global levels, and the interplay between these different levels and the stakeholders involved" (Monks *et al.*, 2017: 13). Nevertheless, this definition is extremely wide-ranging and is not free from criticism; in particular, from a post-development perspective, the very concept of

"development" is criticised as being heavily charged with normative, practical and methodological assumptions that have "Eurocentric, depoliticising and authoritarian implications" (Ziai, 2013: 124; Ziai, 2016: 63). In fact, a distinctive feature of DS is the discursive domination of the conventionally called "Western modernity", which conveys an ethnocentric vision of development upon the so-called "developing world" (Escobar, 1995; Ziai, 2004; Rist, 2008; Ziai 2016).

Understanding the features of the contemporary 21<sup>st</sup> century development discourse is a matter of great interest for development researchers and it can be cleared up from a theoretical and empirical standpoint. Particularly, previous literature has not elucidated the role and influence of academic journals in shaping the development discourse, identifying the main research topics, and detecting the most influential countries, institutions and languages. Some of the matters that arise from this context include the following three unanswered questions: (i) to what degree are scientific journals leading the process of forming the development discourse? (ii) What are the main discourse components of DS in recent years? (iii) To what extent are the top scientific journals publishing research outputs that were produced in institutions outside the Anglo-Saxon academia, and especially those from the developing world?

This paper sheds some light on these questions by analysing the influence of four DS academic journals in shaping the contemporary development discourse. Our sample comprises four journals that are included in the *Social Sciences Citation Index* (SSCI) in the cross-disciplinary "subject category" of "planning and development". The selected journals are *World Development* (WD), *Development and Change* (D&C), *Third World Quarterly* (TWQ) and *European Journal of Development Research* (EJDR). Following this introduction, section 2 briefly reviews the formation process of scientific discourses in accordance with Foucault's pioneering ideas. Section 3 explains the main features of the development discourse and its rules of

formation within the so-called "post-development critique", which rests on the methodology developed by Foucault. It also provides an analytical framework for analysing the influence of academic journals in shaping the development discourse. Section 4 uses bibliometric techniques and qualitative analysis in order to identify the discourse components and commonalities in the four journals analysed during the period 2000-2015. Section 5 identifies the most influential papers within these four journals and explores the consequences in terms of geographic, institutional and linguistic preponderances in the production of knowledge. Finally, section 6 concludes and summarises the main findings and implications for the formation of the contemporary development discourse.

#### 2. The formation of scientific discourses

The process of forming scientific discourses has been studied since the mid-20<sup>th</sup> century (see, among others, Foucault, 1972; Cohen, 1973; Foucault, 1980; Gupta, 1982; Östling *et al.*, 2018). Particularly influential was the break through contribution of the French philosopher, Paul-Michel Foucault (1972, 1980). Motivated by the limited influence of the sociological sphere in the explanation of paradigmatic shifts, he claimed that the generation of knowledge transcends social factors or any bond with a particular scientific discipline. In his view, a discourse is "[...] a group of statements in so far as they belong to the same discursive formation" (Foucault 1972: 117). Hence the key issue for characterising a discourse is the detection of its "rules of formation", which are the conditions to which the components of the discourse (object, enunciative modalities, concepts and strategies) are subjected (Foucault, 1972: 38).

Examining this in more detail, the four components of a discourse —following Foucault (1972) and Ziai (2016: 40-45) — can be described as follows:

• The "object" of a discourse is precisely what is actually studied in a specific field of study.

In the particular case of DS, the object of the development discourse involves an aspiration

to an "ideal" of what we can generically conceive as a multidimensional process of progress of human societies. While the development discourse comprises both the so-called "developed countries" and "developing countries", the object of discourse has been traditionally associated with the latter group: those countries that experience problems and shortcomings (economic, social, political, institutional, environmental, etc.) that deviate them from the ideal. Thus, the discursive object in DS was originally related to geographic and socioeconomic units (States or regions) classified as "developing" (Ziai, 2016: 41). Nevertheless, the ongoing difficulty to reach the ideal of development, and the greater awareness of the "globalisation" of the development challenges, have motivated the emergence of a renewed discursive object (what we can call "global development", transcending the narrower focus on "developing countries"), with a comprehensive view of the development problems in a global framework.

The "enunciative modalities" are features that underlie three operating questions: (i) who provides the discourse? (ii) Where does the discourse come? (iii) What is the position of the researcher and which language does he/she use? Following Foucault (1972: 55), the source of a discourse is not the consequence of any individual person (the "subject"), but the result of a set of discursive practices, which are established at various levels and thus explain the "dispersion of the subject and his discontinuity". In the particular case of the development discourse, the formation of enunciative modalities has been traditionally linked to "Western experts", as claimed by Ziai (2016: 31): "[...] the trusteeship for the development of the society is given to and taken over by the new elites of postcolonial states". This means scholars that are based in developed countries (universities, research centres, think tanks, etc.) and take a public position on how to address a development issue (Rist, 2008; Easterly, 2013). Thus a key element of an enunciative modality is the connection between the expert and their ideological proximity to a certain scientific paradigm of social progress, which

- implies, to some extent, the subordination of the person to a hegemonic conception of development.
- A "concept" is a particular characterisation of the object through a group of dynamic relations that involve an "interrelation between knowledge, meaning and power" (Sande Lie, 2008: 120). According to Foucault (1972: 56-58), the concept comprises forms of succession (the ordering of the statements), coexistence (interaction to other elements such as institutions, social groups and discursive practices) and interventions (techniques of writing). In the particular case of the development discourse, concepts characterise the object of analysis (the multidimensional process of development), and hence they depend on how the object is formally conceived over a period of time and by a certain group of specialists. Thus, development concepts may be associated with the lack of a dimension that is crucial for advancing in the development process, such as the lack of freedoms or economic resources (Ziai, 2016). On the contrary, development concepts may propose positive ideas such as "human development", "sustainable development" and "buen vivir". Moreover, the formation of a concept involves a dynamic process that means that development concepts are automatically renewed after a new development problem arises (Ziai, 2016). This is well exemplified through changing development ideas inside the United Nations, which are the consequence of shifting global concerns (Jolly et al., 2009).
- The "strategies" —also called "thematic choices" or "topics"— provide the inputs through which different remedies for development arise. Thus, they are highly sensitive to historical and social conditions. While concepts are a direct route to conceive the problem, strategies are mechanisms for tackling it. Strategies are an integral part of a discourse, even though they can be allocated in different discursive subsets. An illustrative example is the set of theories within modernisation and dependency approaches that reflects a diversity of strategies in the development theory as well. While the theories behind these two approaches share similarities, they offer differentiated treatment to the same development

problem. Therefore, there are incompatibilities in the search for solutions to promote development (Carter, 1997; Ziai, 2016). Examples of conflicting strategies for promoting development are abundant in the literature. Consider, for instance, Rostow's stages of growth, the modern neoclassical approach based on structural adjustment programmes, and alternative responses to development such as de-growth and post-development theories.

A further factor in the emergence of a scientific discourse, which complements the detection of discursive regularities, is the role of "non-discursive practices" (Foucault, 1972: 67-68, 157, 175). They involve external and hidden factors that influence the formation of the discourse, such as political events, institutions, economic practices and processes, either in the short or in the long term (e.g. the debt crisis of the 1980s or the 9/11 terrorist attacks). In sum, the analysis of both discursive and non-discursive practices is relevant for understanding a discourse formation.

All in all, a relevant conclusion of the Foucauldian theory is that the "unity" of a discourse is not determined by the existence of common objects, enunciative modalities, concepts and topics, but by the existence of common rules of formation of the discourse. Therefore, a particular discourse can be composed of several (and even contradictory) objects and concepts, and still share some rules of formation that determine the existence of a unique discourse.

### 3. The structure of the development discourse

Post-development analysts have studied the structure of the development discourse based on Foucault's (1972) methodology of "archaeology of knowledge", which claims that the emergence of a scientific discourse can be tracked over time. The roots of the development discourse go back to the colonial discourses and since then it has undergone upheavals without entailing a loss of many of its distinctive characteristics (Escobar, 1988; Ziai, 2016). For example, among other ideas, the dichotomic conception of the world (distinguishing between

"developed" and "developing" countries) remains in force (Nielsen, 2013; Tezanos and Sumner, 2013, 2015; Madrueño, 2017a, 2017b).

The relation between discursive practices (i.e. communicative practices that enable the formation of knowledge) and non-discursive practices (i.e. economic and/or political events) in the development discourse reflects the importance of historical conjunctions and institutional changes. This means that the discourse is not unrelated with the socio-political context. On the contrary, it involves structural considerations that determine the appearance of "discursive shifts" (Biccum, 2009). In both cases, discursive and non-discursive practices involve a constellation of linguistic, socio-economic and political elements that shape the formation of a discourse (Ziai, 2016).

As previously explained, following Foucault's (1972) methodology, the process of creating knowledge rests on the detection of the rules of formation of its components and their interrelation, which give consistency and coherence to a certain discourse. Therefore, to understand the development discourse it is necessary to identify its rules of formation. This has been done by the pioneer study carried out by Ziai (2016) in his recent book, *Development Discourse and Global History*.

As a starting point, Ziai (2016: 15) reinterprets Foucault's definition of "discourse" in a more practical manner:

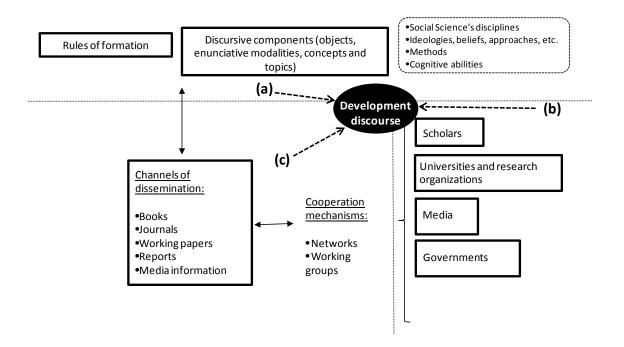
"[...] discourses are systems of meaning, in which certain relations between signifiers and signifieds are fixed, certain assumptions are considered true, certain mechanisms for the production of truth are accepted, certain elements are linked and in which certain rules guide the formation of objects, statements, enunciative modalities and topics. They constitute identities by providing the subjects with certain concepts and ways of speaking, certain types of constructing reality and producing statements. Discourses are open systems constituted by regularities, there are manifold overlaps between them and their number is limitless. Discourses are the result of individual and collective practices and thereby unstable and subject to historical change."

According to this author, it is possible to talk about the "discourse of development", in singular, because —besides the existence of a myriad of development theories and approaches— there are a number of assumptions and discursive regularities shared by all the different approaches. The following four assumptions are the most relevant of the development discourse (Ziai, 2013: 126-127; Ziai, 2016: 57-58):

- i. The existential assumption, which implies that "development exists" and it functions both as an "organising frame" that links the different dimensions —social, political, environmental, cultural, etc.— that compose the development process; and as a "conceptual frame" that allows us to categorise the different phenomena as manifestations of "developing" or "developed" societies.
- ii. The normative assumption, which states that "development is a good thing".
- iii. The practical assumption, which establishes that "development can be achieved".
- iv. The methodological assumption, which enables us to compare "units of analysis" according to their development levels (usually, countries or regions).

In the light of the previous explanations, **Figure 1** depicts an overall framework that conceives the process of formation of the development discourse in three interdependent and complementary levels:

Figure 1. Three interdependent levels in the formation of the development discourse



The first level (a) focuses on the <u>discourse formation</u> in which the four components of the development discourse (object, enunciative modalities, concepts and topics) operate in accordance with a certain set of rules of formation that determine the unity of the discourse. In the particular field of DS, several disciplines are contributing different (and sometimes substitutive) objects and concepts, which have led to an apparent disconnection between Social Science's disciplines —as if they were hermetic compartments— in their bid to exclusiveness (Braudel, 1968). This is notably the case when scholars share a certain narrative and jargon, for example, in the field of Economics, which relies on mathematical formalisms (Rodrik, 2016). Nevertheless, the disconnection across disciplines is only partial since there are communicating vessels (discursive practices) that do not allow their full independence. Even so, there are constant tensions among approaches, ideologies and beliefs, in which the role of dominance is a fundamental part of a dynamic conflict in order to preserve the supremacy in the production of knowledge. However, the resilience to dominant discourses is extensive to different cultures and languages, and, eventually, this

resilience can foster an intercultural dialogue outside the current mainstream, as in the case of alternative development concepts such as the Andean *buen vivir*. <sup>1</sup>

- As knowledge does not occur in a vacuum, the second level (b) identifies the <u>institutions and actors</u> responsible for creating and fostering knowledge, such as scholars, universities, research centres, governments, multilateral organisations and the media. Universities and scholars are two key elements in this process since they are at the heart of the scientific community. Furthermore, they cooperate with other organisations (both public and private), governments and the media, through either economic incentives (funding) or institutional and political commitments, among others. This means, for instance, that the scientific production of scholars is likely to end up feeding communication channels of governments, multilateral organisations and the media, at both national and international levels. While these structures echo the most visible narratives and views of the Academia, they create a self-reinforcing system in terms of discursive production, where it is difficult to establish the direction of causality. In this level, non-discursive practices are especially relevant.
- The third level (c) includes the <u>factors that add momentum</u> to the formation of the development discourse. A variety of channels contribute to disseminate the production of knowledge: books, journals, working papers, reports, media information, blogs, etc. Moreover, institutional communication and cooperation operates through academic networks. At this level, the interconnection between scientific networks and dissemination channels is critical for the orientation, quality and recognition of any academic output (through a number of strict rules, such as the publishing codes). All this is true of academic DS networks, particularly those of a cross-disciplinary nature, such as EADI and the Spanish Network of Development Studies (REEDES).

<sup>1</sup> For a more thorough discussion on *Buen vivir*, see Ziai (2015) and Gudynas (2014).

All in all, this analytical framework helps us to understand the context in which DS academic journals exert their influence in the formation of the contemporary development discourse — which is the aim of this paper. Obviously, there are many other interdependent forces that simultaneously shape the discourse (such as academic networks, research centres and other disseminations channels, to name a few), which are reflected in our framework but are not part of our empirical analysis and thus constitute potential future lines of research.

# 4. Evidence from four academic journals

In order to assess the contemporary development discourse we now focus on four academic journals: World Development (WD), Development and Change (D&C), Third World Quarterly (TWQ) and European Journal of Development Research (EJDR). All of them are peer-reviewed academic journals that deal with a broad range of development issues. In the end, we assume that peer-reviewed journals are representative of the knowledge production of DS, as they are an influential mechanism for disseminating the scientific development discourse.

The analysis includes 6,035 articles that were published between 2000 and 2015. We use the 'Web of Science' database (Clarivate Analytics, 2017) in order to retrieve complete information on abstracts, keywords, authors, institutional affiliations and cited references.

We perform a cluster analysis of the data using *CiteSpace 5.0.R2*, software that detects and displays patterns and trends in the scientific literature.<sup>2</sup> Identifying scientific trends involves considering three basic items (nodes, links and networks) that will be visualised through cluster views in the forthcoming graphs (see Figures 3 to 5):<sup>3</sup>

i. Nodes are depicted as dots, and each node's size shows how often an article or cluster has been cited overall. Hence, the larger the node, the greater its influence in terms of citations.

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<sup>&</sup>lt;sup>2</sup> See Chen (2014) for a complete manual on CiteSpace.

<sup>&</sup>lt;sup>3</sup> See Aigner *et al.* (2011) for a detailed explanation on how to interpret these parameters.

- ii. Links are lines that connect nodes (also called as "co-citation links").
- iii. The result of combining nodes and links are the different areas of research that are called networks (or clusters) of research. These networks are depicted in each graph by different coloured areas.

Moreover, the numbered labels in each graph represent the references that are highly cited and could be considered as "landmark topics". These numbers have a hierarchical order, where the largest research area is Cluster 1. The labels represent the citation context that involves information regarding citing articles' titles, keywords and abstracts.

This empirical procedure allows us to analyse two key aspects of the research networks. Firstly, the existence of "citation bursts", which are burst events where a particular publication captures an outstanding attention from its scientific community and thus reflects the acceleration of citations over a short period. Graphically, citation bursts are depicted as extraordinary large nodes. In order to test the existence of citation bursts we run the Kleinberg's burst detection algorithm (Chen, 2006: 364). Secondly, the empirical procedure allows us to examine the existence of "active areas of research" or "emerging trends", which consist of clusters that include several nodes with strong citation bursts.

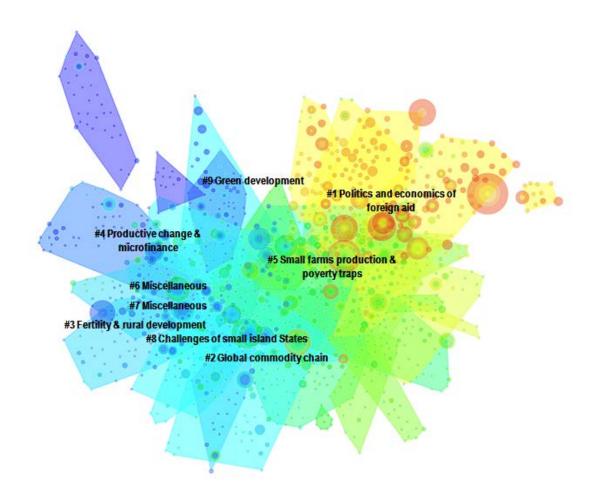
In order to select the most appropriate clustering procedure for our analysis, we previously implement two different procedures: the first provides nodes that are based on cited references; the second considers nodes as direct results of cited references and keywords. As these two procedures do not produce substantially different results, our research strategy adopts the second approach, which uses citations and keywords in order to detect discursive relations. Therefore, we assume that these two elements (cited references and keywords) provide useful information for the analysis of the development discourse and for identifying relevant footprints of the related research interests.

# 4.1 World Development

WD is a multi-disciplinary monthly journal, established in 1973. In the 2015 edition of the SSCI, it ranked fifth out of 55 journals in the subject category of "planning and development", thus being located in the first quartile (Q1).

For this journal, we collected 2,520 articles and, through successive iterations in our cluster analysis, we were able to obtain the network of co-cited references and the major areas of research based on our selection criteria (cited references and keywords) (Figure 2).

Figure 2. Research networks in WD



Between 2000 and 2015, we identify 156 clusters that represent a line of research. Of these, only 31 clusters (19.8 per cent) are above a certain threshold of homogeneity, which is measured through the silhouette score (see Table 1). The higher the silhouette score (values close to one), the more consistent the cluster. We have set up a co-citation reference criteria above 10 members (i.e. clusters that are composed of at least 10 nodes of citations). As for the rest (the remaining 125 clusters), there are 27 clusters that have a low level of representation regarding citation references (i.e. they have very few citations but a high level of homogeneity across citations). According to Chen (2014), this evidences that citations come from the same underlying author(s) or a single paper thus consisting of "self-citations".

Regarding the most homogeneous clusters, only nine of them are high-impact nodes to the extent that they have above 50 citation members. These are the Clusters 1 to 9.

Notably, despite WD's capacity to generate large nodes, we do not detect any citation burst, as there is a high dispersion of citations in the majority of the clusters in a timeline perspective. In any event, it should be noted that Cluster 1 has attracted the highest degree of attention, as it is composed of 103 nodes that aggregately received 482 citations for the entire period of study.

**Table 1** summarises the information of the most influential clusters in WD. In particular, it provides information on three statistics: the Term Frequency-Inverse Document Frequency (TFIDF), the Log-Likelihood Ratio (LLR) and the Mutual Information (MI). The three statistics reflect unique aspects of the clusters (see explanatory notes on Table 1). These specifications work as a guide for identifying areas of research and had to be complemented by a detailed examination of each cluster.

Table 1. Summary of the most influential clusters in WD

Cluster number	Number of nodes	Aggregate citations	Silhouette	Label
1	103	482	0,839	Politics and economics of foreign aid
2	71	198	0,835	Global commodity chain
3	68	182	0,910	Fertility & rural development
4	61	171	0,907	Productive change & microfinance
5	58	211	0,857	Small farms production & poverty traps
6	58	191	0,899	Miscellaneous
7	57	207	0,802	Miscellaneous
8	51	122	0,929	Challenges of small island States
9	50	211	0,887	Green development

Notes:

The Silhouette value is used for estimating the uncertainty involved in identifying the nature of a cluster. It represents the homogeneity of a cluster. The higher the value, the more homogeneous the cluster is and the more independent from other clusters. This value can range from -1 to +1. The analysis is also based on additional extracting methods: the Term Frequency–Inverse Document Frequency (TFIDF), which represents the most salient aspects of the clusters; the Log-Likelihood Ratio (LLR) and the Mutual Information (MI), which reflect the unique aspects of each cluster.

As for the largest **Cluster 1** (*politics and economics of foreign aid*), it deals with issues of aid allocation and effectiveness. These concerns are deployed across a variety of topics that

examine questions related to aid practices, aid quality, aid transparency and the relation between aid, governance and growth.

The most representative issue of **Cluster 2** is the *global commodity chain*, which is analysed through the implementation of technology transfer and the global value chain. Here, it is possible to observe a variety of topics regarding the changes in the manufacturing sector in different developing countries in Asia, Latin America and Africa. This involves the importance of the changing global geography, which is the consequence of new patterns of trade and investment.

Citing articles from Clusters 3 to 9 relied on a wide spectrum of socio-economic issues. Cluster 3 (fertility & rural development) focuses on fertility change and gender participation, as well as rural development and social science and development. Cluster 4 (productive change & microfinance) underlines macroeconomic and productive change from a national perspective. This group also includes the issue of microfinance. Cluster 5 (small farms production & poverty traps) focuses on the role of cash crop production in small farms and poverty traps. Cluster 6 (miscellaneous) emphasises a number of key aspects such as genetic resources, social capital and collective action. On the other hand, Cluster 7 (miscellaneous) focuses on poverty reduction and inequality as well as foreign aid and gender composition in the labour market. Cluster 8 (challenges of small island States) concentrates on the role of infrastructure, direct democracy and trade liberalisation. Similarly, it emphasises to some extent the realities of small island States. Lastly, Cluster 9 (green development) underlies the issue of protected areas, environmental income and the conservation of tropical forest.

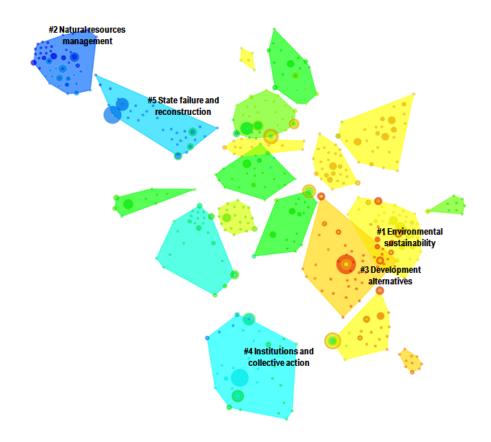
### 4.2 Development and Change

D&C, established in 1970, is an interdisciplinary and bi-monthly journal that ranks 12<sup>th</sup> out of 55 in the field of planning and development, according to the 2015 edition of the SSCI. It is hence located in Q1 after being in Q2 for two consecutive years (2013 and 2014).

Our analysis includes 1,644 articles published between 2000 and 2015. We identify 141 clusters that have a relatively low degree of dispersion across clusters and a high concentration of active nodes at the top. Among these 141 clusters, only 14.1 per cent (Clusters 1 to 20) contain at least 10 nodes of citations. Of the remaining 120 clusters, there are 27 clusters (19.1 per cent of the sample) with very few nodes and a high level of homogeneity, which most likely stems from the fact that these few and homogeneous citations come from the same authors.

**Figure 3** depicts the major areas of research. In comparison with WD, there is more dispersion among D&C's clusters, and clusters are composed of lower numbers of nodes of citations. Furthermore, the largest nodes of D&C are located in Clusters 5, 4 and 3.

Figure 3. Research networks in D&C



In terms of discursive components (see **Table 2**), **Cluster 1** (*environmental sustainability*) stresses the notion of biodiversity conservation and ecosystem service in relation to climate change.

Table 2. Summary of the most influential clusters in D&C

Cluster number	Number of nodes	Aggregate citations	Silhouette	Label
1	54	146	0,931	Environmental sustainability
2	45	120	0,982	Natural resources management
3	34	92	0,938	Development alternatives
4	34	102	0,978	Institutions & collective action
5	31	90	0,928	State failure & reconstruction

Note: see explanatory notes on Table 1.

Cluster 2 (natural resources management) highlights the interdependent relationship between environmental problems and peasant forest in the context of natural resource management. Closely connected with these components are the topics of global environmental discourses and community formation, seeking to recover the voices of the poor and the civil society, in particular in countries such as China, Philippines, Thailand, India, Indonesia, Nicaragua, Zimbabwe, Tanzania and Mozambique.

Cluster 3 raises a number of concerns related to *development alternatives*, which includes social movements, building local governance and pro-poor participation, among others. The latter is of particular importance regarding microfinance and women emancipation. Another important element is the issue of power and politics in emerging aid relationships. It is interesting to note that Clusters 1 and 3 are partially overlapped, which means that they generate citations across these clusters.

The influence of **Cluster 4** (*institutions & collective action*) is due to its emphasis on collective action and the role of institutions in addressing a variety of risks and vulnerabilities, such as violence, corruption, displacement, poverty and inequality. This cluster also identifies the concept of global governance and the neo-institutional perspective in dealing with developmental issues.

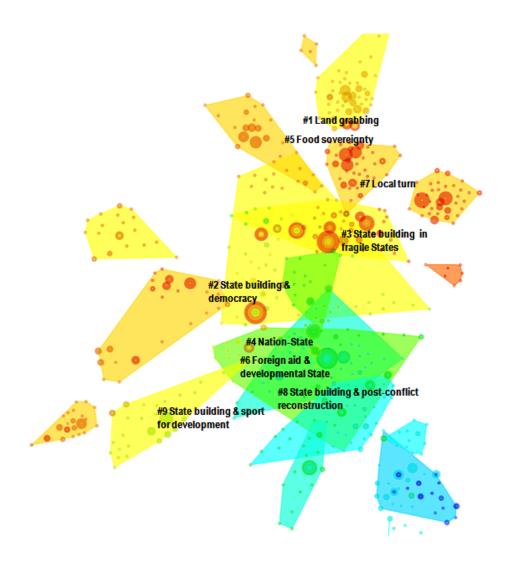
Finally, **Cluster 5** (*State failure & reconstruction*) highlights the problems of State collapse and failure in the context of reconstruction, peace-building and recovery. These include different mechanisms through which reconstruction can be strengthened, such as development assistance, policy conditionality, trade and capacity building.

# 4.3 Third World Quarterly

TWQ is a peer-reviewed journal, established in 1979. It ranks 19<sup>th</sup> out of 55 in the field of planning and development, according to the 2015 edition of the SSCI. This means that TWQ is located in Q2 after being in Q3 for five consecutive years (2010-2014).

Our sample contains 1,449 articles within the period 2000-2015 and the analysis identifies 146 clusters that have a relatively high degree of dispersion across clusters and highly concentrated active nodes at the top. **Figure 4** depicts these features, showing a relatively homogeneous map of clusters. However, only 6.2 per cent of the nodes have above 30 citation references; thus the capacity of this journal in generating prominent nodes is relatively low.

Figure 4. Research networks in TWQ



**Table 3** further identifies the components of TWQ's development discourse. The features of the most influential clusters are the following:

Table 3. Summary of the most influential clusters in TWQ

Cluster number	Number of nodes	Aggregate citations	Silhouette	Label
1	45	127	0,966	Land grabbing
2	43	113	0,924	State building & democracy
3	42	136	0,866	State building in fragile States
4	42	120	0,903	Nation-State
5	36	106	0,948	Food sovereignty
6	36	91	0,943	Foreign aid & developmental State
7	35	97	0,988	Local turn
8	34	85	0,915	State building & post-conflict reconstruction
9	30	78	0,945	State building & sport for development

Note: see explanatory notes on Table 1.

**Cluster 1** consists of theoretical and historical analysis of what **land grabs** represent in terms of international development accumulation and its impact on the dispossessed.

The issue of *State building*, *inter alia*, has received a differentiated treatment by the four clusters involved (2, 3, 8 and 9). In particular, it has been related to post-conflict recovery through democracy and peace, as well as the debate about the type of aid policy that should be implemented (Cluster 2). Something similar occurs with the issue of fragile States, although in this case it is connected to the role of international organisations (Cluster 3). The problem of post-conflict reconstruction places special emphasis on policy and governance reform, as well as participatory development at the regional and local levels (Cluster 8). Moreover, post-war reintegration and peace are conceived as possible outcomes of sport for development (Cluster 9).

The *nation-State* (Cluster 4) has been analysed from the point of view of geopolitics of development, hegemonic discourse and biopolitics, among others, which include the challenges of the global South in the neoliberal era.

**Food sovereignty** (Cluster 5) is treated through a variety of approaches, which involves the topics of transnational agrarian movements and agroecology, among others.

**Foreign aid** (Cluster 6) is seen through the lens of aid donors and their practices regarding development promotion. Likewise, this cluster includes analysis of the limits of the **developmental State** under global neoliberalism from a historical perspective, as well as other theoretical discussions that revisit the concept of developmental State.

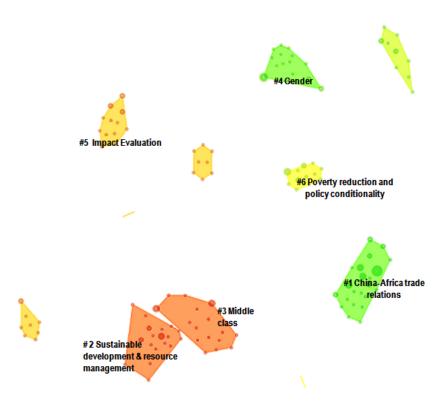
Finally, attention is placed to the *local turn* (Cluster 7) to clarify local governance in situations of political instability, particularly through critical positions.

# 4.4 European Journal of Development Research

EJDR, established in 1989, is a multi-disciplinary and bi-annual journal. In 2015 EJDR ranked 45<sup>th</sup> out of 55 journals (Q4) in the field of planning and development. We analysed the 422 articles published between 2000 and 2015.

**Figure 5** shows the 56 clusters generated by our analysis. Not only is the dispersion among clusters significantly higher than in the previous three journals, but these clusters are also less influential in terms of citations. Moreover, the journal shows a limited capacity to generate large nodes and there is a high concentration of citations in a limited number of clusters (only 12.5 per cent of them are composed of 10 or more nodes). Furthermore, the low number of citations and the high level of homogeneity of 14 clusters (25 per cent of the sample) reveal a high level of self-citations. Of the remaining clusters (62.5 per cent), there are no significant co-citation references.

Figure 5. Research networks in EJDR



**Table 4** provides information related to the top research interests in EJDR and the context in which clusters have been cited. **Cluster 1** (*China-Africa trade relations*) adheres to one geographical unit: the issue of Africa's development, which is analysed through the lens of the China-Africa trade relations. This involves a set of factors that define these relations, such as the role of private enterprises and the practices of the migrant community from China in advancing or discouraging Africa's economic development.

**Table 4.** Summary of the most influential clusters in EJDR

Cluster number	Number of nodes	Aggregate citations	Silhouette	Label
1	24	63	1	China-Africa trade relations
2	19	42	0,937	Sustainable development & resource management
3	16	36	0,897	Middle class
4	14	33	1	Gender
5	12	27	1	Impact evaluation
6	12	28	1	Poverty reduction & policy conditionality
7	10	23	1	Education policies for young people

Note: see explanatory notes on Table 1.

**Cluster 2** (*sustainable development and resource management*) tackles the issue of sustainability from various angles: in relation to governance and inclusiveness, strengthening the political capability, and the management of resources. This cluster is connected with other closely related notions, such as urban resilience and social accountability.

The topic of **Cluster 3** is the *middle class*, which is associated to the ideas of inclusive growth, inclusive development, poverty and inequality.

Moreover, as mentioned above, Clusters 4 to 7 have low levels of homogeneity. Nonetheless, we summarise some of their main features: addressing gender issues is a central concern of Cluster 3, where the problem of sex segregation is tackled through the promotion of female entrepreneurship. Cluster 4 focuses on impact evaluation in addressing development challenges. Cluster 5 establishes a relationship between poverty reduction and the practice of policy conditionality. Cluster 7 adheres to the issue of education policies for young people.

# 4.5 Comparative analysis of the discursive formations

In the process of understanding the contemporary development discourse, our analysis of four academic journals (WD, TWQ, D&C and EJDR) identifies their research interests over the last 15 years. Research interests are concentrated in a relatively small group of clusters, as seen in **Table** 

**5**. There are also common areas of interest for the four journals analysed, which share the same rules of formation of the development discourse (as previously reviewed in section 3, they assume its four main assumptions). By examining this further, we find six common areas of interest.

**Table 5**. Comparative discursive formations in the four analysed journals

Journal	WD	D&C	TWQ	EJDR
	Rural development	Natural resources management (1996)	Nation-State (2002)	China-Africa trade relations
	Fertility change	Environmental sustainability (2009)	Land grabbing	Middle class
	Politics and economics of foreign aid (2007)	Institutions and collective action	Food sovereignty	Gender (2005)
	Small farms	State failure and reconstruction (1997)		Impact evaluation
	Genetic resources	Development alternatives (2009)	Local turn (2011)	Poverty reduction and policy conditionality (2005)
Discursive	Inequality		State building (in fragile states; post-conflict reconstruction, democracy and sport for development) (2008 /2009)	Education policies for young people
components	Infraestructure		Foreign aid & developmental State (2005)	
	Small island states			
	Tropical forest and protected areas			
	conservation (2008)			
	Gender and labour market (1998)  Poverty traps (2004)			
	Global commodity chain			
	Direct democracy			
	Environmental income (2008)			•
	Microfinance (1995)			
	Gender participation (1999)			
	Macroeconomic and productive			
	change (1995)			
	Poverty reduction (1999/2008)			

Firstly, there is the issue of aid, detailed in WD and TWQ, which has contributed to consolidate the topic of the politics and economics of foreign aid (aid allocation, effectiveness and conditionality). An important consideration is the timing. These topics emerged between 2005 and 2007, precisely when the international community propelled the "aid effectiveness agenda", thus demonstrating how context-sensitive the process of forming the development discourse is (and the importance of the non-discursive practices). Moreover, foreign aid is a traditional concern of the development discourse that follows its rules of formation: the need

for aid is justified in terms of the lack of resources in the developing regions (assuming the existential and the methodological assumptions). The topic of aid effectiveness adopts both the normative and the practical assumptions.

Secondly, the concern about poverty occupies a prominent place within the discourse components of two journals: WD and EJDR. While this topic has been the focus of attention in WD since 1999, EJDR has paid special attention to this subject since 2005. Nonetheless, there are important differences between these journals: in WD, the poverty analysis is associated with the ideas of poverty traps and poverty reduction, whereas EJDR's papers try to understand the reduction of poverty through the role of policy conditionality. Again, the topic of poverty is treated following the rules of formation of the development discourse: poverty is conceived as a prevalent problem (in opposition to the ideal that underlies the existential assumption) that affects developing countries (adopting the methodological assumption); hence, the goal of reducing poverty is understood as a necessary component of the development process (in accordance with the normative and practical assumptions).

Thirdly, the issue of sustainability has been a topic of interest within WD and D&C, in relation to environmental sustainability and environmental income. The latter addresses concerns linked to the management of natural resources and, in particular, the conservation of protected areas and tropical forests. These common features reveal a growing concern in the development discourse: the issue of sustainability and environmental protection (existential assumption), without which it would be impossible to achieve the Sustainable Development Goals (normative and practical assumptions) in both developed and developing countries (methodological assumption).

Fourthly, the nation-State has been a relevant issue for D&C and TWQ, but in this case it is viewed from renewed perspectives regarding the State building process in the contexts of

institutional fragility and post-conflict situations. Again, these discourse components clearly assume the rules of formation of the development discourse.

Fifthly, gender in development is addressed in WD and EJDR by means of studying both female entrepreneurship and female participation in the labour market. In these studies, women are seen as key drivers of prosperity and social inclusion.

Sixthly, development alternatives have been key topics of WD and D&C, highlighting a variety of development possibilities in which aspects such as microfinance, pro-poor participation and local governance emerge.

Finally, while there is a mixture of "traditional" and "cutting-edge" topics in these journals, there is no clear pattern to maintain the momentum of new discourse components. Examples of traditional topics of development are inequality, infrastructure and the nation-State, whereas new topics include genetic resources, small island States and the middle class. Moreover, although there are clear differences in the narratives among clusters —which are, in part, a consequence of the journals' editorial lines— none of the four journals have been able to generate citation bursts. As a result, they have not captured a great amount of attention from the DS scientific community over the last years.

While some journals, such as WD, are focused on more traditional development concerns, others have paved the road to concentrate on a mix between thematic axes in DS and cuttingedge issues that have come to dominate the heart of the global development agenda (e.g. State building, governance and sustainability), for example D&C and TWQ. Finally, EJDR offers a wide range of discursive narratives with no clear specialisation.

### 5. Most influential papers, countries and languages in development studies

As the citation networks of these four journals have been separately analysed, this paper will now aggregate all the articles published in the period 2000-2015 in order to find out which journals and articles were more influential. We proxy the influence of each paper by the number of citations that it received and we combined the top-10 most cited papers of the four analysed journals, summing up a total of 40 influential papers (**Table 6**).<sup>4</sup> According to this procedure, nine out of the top-10 most cited papers were published in WD, and the remaining one was published in TWQ. This result is congruent with their corresponding impact factors, which are higher for WD than for the other three journals.<sup>5</sup> Furthermore, the papers between the 11<sup>th</sup> and the 30<sup>th</sup> positions of the citations ranking were published in TWQ and D&C, and the least cited papers were all published in EJDR. Moreover, there is a high variability of citations across these 40 papers: although the average number of citations is almost 166, the standard deviation is 140.

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<sup>&</sup>lt;sup>4</sup> It should be taken into consideration that "older" papers are more likely to have received more citations; in fact, the top-10 papers of these four journals were all published before 2006.

<sup>&</sup>lt;sup>5</sup> However, it should be noted that SSCI's impact factors use citation windows of two or five years (i.e. the index only computes the citations to a paper in a restricted period of either two or five years), whereas we compute all the citations received by each paper since its year of publication (without any time constrain).

**Table 6.** Most cited papers of WD, TWQ, D&C and EJDR. 2000-2015

Authors	Title	Journal	# citations	Authors' countries of affilation	Institutional affiliation
Stern, DI	The rise and fall of the environmental Kuznets curve	WD	628	USA	Rensselaer Polytech Inst
Agrawal, A	Common property institutions and sustainable governance of resources	WD	573	USA	Yale Univ
Pretty, J; Ward, H	Social capital and the environment	WD	464	UK	Univ Essex
Pagiola, S; Arcenas, A; Platais, G	Can payments for environmental services help reduce poverty? An exploration of the issues and the evidence to date from Latin America	WD	328	USA	World Bank
Sunderlin, WD; Angelsen, A; Belcher, B; Burgers, P; Nasi, R; Santoso, L; Wunder, S	Livelihoods, forests, and conservation in developing countries: An overview	WD	259	Indonesia, Norway, Netherlands, France, Brazil	CIFOR; Agr Univ Norway; Univ Utrecht
Mohan, G; Stokke, K	Participatory development and empowerment: the dangers of localism	TWQ	255	UK, Norway	Univ Portsmouth; Univ Oslo
Maloney, WF	Informality revisited	WD	254	USA	World Bank
Stiglitz, JE	Capital market liberalization, economic growth, and instability	WD	247	USA	World Bank
Agarwal, B	Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework	WD	246	India	Inst Econ Growth
Ribot, Jesse C.; Agrawal, Arun; Larson, Anne M.	Recentralizing while decentralizing: How national governments reappropriate forest resources	WD	242	USA, Nicaragua	World Resources Inst; Univ Michigan; Ctr Int Forestry Res
Blaikie, Piers	Is small really beautiful? Community-based natural resource management in Malawi and Botswana	WD	236	UK	Univ E Anglia
Fukuyama, F	Social capital, civil society and development	TWQ	204	USA	George Mason Univ
Mosse, D	Is good policy unimplementable? Reflections on the ethnography of aid policy and practice	D&C	194	UK	Univ London
Adger, WN; Benjaminsen, TA; Brown, K; Svarstad, H.	Advancing a political ecology of global environmental discourses	D&C	180	UK, Norway	Univ E Anglia; Agr Univ Norway; Univ E Anglia; Norwegian Inst Nat Res
de Haan, L; Zoomers, A	Exploring the frontier of livelihoods research	D&C	167	Netherlands	African Studies Ctr; Leiden Univ; Ctr Latin Amer Res & Documentat
Poteete, AR; Ostrom, E	Heterogeneity, group size and collective action: The role of institutions in forest management	D&C	158	USA	Univ New Orleans; Indiana Univ
Sikor, Thomas; Lund, Christian	Access and Property: A Question of Power and Authority	D&C	148	UK, Denmark	Univ E Anglia; Roskilde Univ
Cornwall, A; Brock, K	What do Buzzwords do for Development Policy? A critical look at 'participation', 'empowerment' and 'poverty reduction'	TWQ	147	UK	Univ Sussex, Inst Dev Studies
Molyneux, M	Gender and the silences of social capital: Lessons from Latin America	D&C	137	UK	Univ London
Nyers, P	Abject Cosmopolitanism: the politics of protection in the anti-deportation movement	TWQ	131	Canada	McMaster Univ
Corbera, Esteve; Brown, Katrina; Adger, W. Neil	The equity and legitimacy of markets for ecosystem services	D&C	130	UK	Univ E Anglia
Platteau, JP	Monitoring elite capture in community-driven development	D&C	130	Belgium	Univ Namur
Hickey, S; Mohan, G	Relocating participation within a radical politics of development	D&C	127	UK	Univ Manchester
Lund, Christian	Twilight institutions: Public authority and local politics in Africa	D&C	122	Denmark	Roskilde Univ Ctr
Barrientos, Stephanie; Smith, Sally	Do workers benefit from ethical trade? Assessing codes of labour practice in global production systems	TWQ	110	UK	Univ Sussex, Inst Dev Studies
Weiss, TG	Governance, good governance and global governance: conceptual and actual challenges	TWQ	103	USA	NYU
Briggs, J; Sharp, J	Indigenous knowledges and development: a postcolonial caution	TWQ	102	UK	Univ Glasgow
Escobar, A	Beyond the Third World: imperial globality, global coloniality and anti-globalisation social movements	TWQ	99	USA	Univ N Carolina
De Haas, H	International migration, remittances and development: Myths and facts	TWQ	93	Netherlands	Radboud Univ
Williams, G	Evaluating participatory development: tyranny, power and (re)politicisation	TWQ	86	UK	Kings Coll London
Thomas, M. A.	What Do the Worldwide Governance Indicators Measure?	EJDR	71	USA	Johns Hopkins Univ
Gu, Jing	China's Private Enterprises in Africa and the Implications for African Development	EJDR	56	UK	Univ Sussex, Inst Dev Studies
Kaplinsky, Raphael; Morris, Mike	Chinese FDI in Sub-Saharan Africa: Engaging with Large Dragons	EJDR	44	UK, South Africa	The Open University; Univ Cape Town
Mohan, Giles; Tan-Mullins, May	Chinese Migrants in Africa as New Agents of Development? An Analytical Framework	EJDR	32	UK	Univ Portsmouth
Kraetli, Saverio; Schareika, Nikolaus	Living Off Uncertainty: The Intelligent Animal Production of Dryland Pastoralists	EJDR	25	UK, Germany	IUAES Commiss Nomad Peoples; Inst Ethnol
Minniti, Maria	Female Entrepreneurship and Economic Activity	EJDR	22	USA	So Methodist Univ
Narula, Rajneesh; Driffield, Nigel	Does FDI Cause Development? The Ambiguity of the Evidence and Why it Matters	EJDR	20	UK	Univ Reading; Aston Univ
Giovannetti, Giorgia; Sanfilippo, Marco	Do Chinese Exports Crowd-out African Goods? An Econometric Analysis by Country and Sector	EJDR	20	Italy	Univ Florence
Lewis, David	International development and the 'perpetual present': Anthropological approaches to the re-historicization of policy	EJDR	18	UK	London Sch Econ
Vodopivec, Barbara; Jaffe, Rivke	Save the World in a Week: Volunteer Tourism, Development and Difference	EJDR	17	Netherlands	Leiden Univ

Source: authors' calculations using data from Clarivate Analytics (2017).

Note: the table includes citations of the top-10 most cited papers between 2000 and 2015 of four journals: WD, TWQ, D&C and EJDR. Countries are identified in terms of the authors' institutional affiliations. For those papers with co-authors from different countries, the total number of citations received by these papers is assigned to all countries.

These influential papers also deal with very different topics. According to the corresponding key words of the top-three papers of each journal, some journals seem to specialise in certain topics. On the one hand, WD's top-three papers deal with sustainability and environmental issues, and TWQ's top-three deal with governance and participatory development. On the other hand, the top-three papers of EJDR and D&C deal with miscellaneous topics: EJDR in relation to good governance and Chinese investment in Africa, and D&C in relation to aid policy, development management, resource-management and poverty.

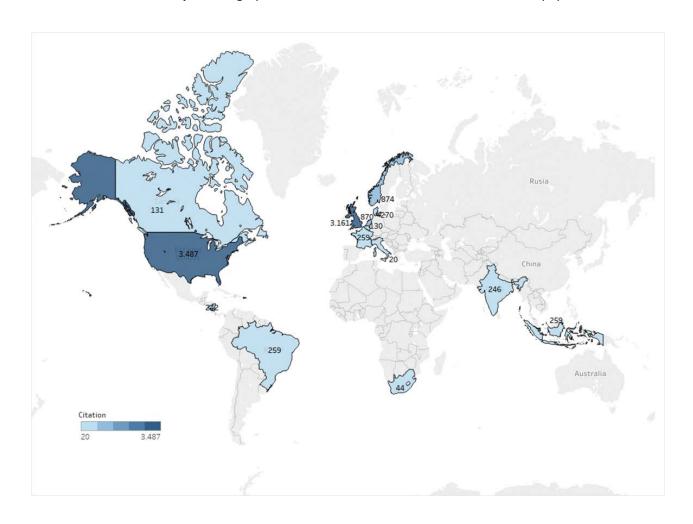
In terms of the institutional affiliation of the authors and their corresponding geographical locations (both aspects directly influencing the "enunciative modalities" of the development discourse, as previously explained in section 3), there is a clear bias towards the Anglo-Saxon academic world, with a few Universities and research centres leading the process (**Tables 6 and 7** and **Map 1**). In particular, the most influential institutions, in terms of the production of several highly cited papers, are three British universities (University of East Anglia, University of Sussex's Institute of Development Studies and University of London) and a US-based multilateral organisation (The World Bank). In aggregate terms, the USA and UK's researchers are responsible for 34% and 31%, respectively, of the total citations. The remaining third of citations is scattered across other 12 countries that have marginal participations on citations, with the exception of Norway and The Netherlands. Moreover, there is also an overwhelming majority of developed countries involved in the scientific production of these papers (only five of the 15 countries are developing countries). All 40 papers were published in English, thus reinforcing the Anglo-Saxon preponderance and bias in DS.

**Table 7.** Geographical distribution of citations of the most cited papers

Number citations	Participation on citations (%)	Countries
3.487	34,01	USA
3.161	30,83	UK
874	8,53	Norway
870	8,49	Netherlands
270	2,63	Denmark
259	2,53	Brazil
259	2,53	France
259	2,53	Indonesia
246	2,40	India
242	2,36	Nicaragua
131	1,28	Canada
130	1,27	Belgium
44	0,43	South Africa
20	0,20	Italy

Source: authors' calculations using data from Clarivate Analytics (2017)

 $\textbf{Map 1.} \ \ \textbf{Geographical distribution of citations of the most cited papers}$ 



Source: authors' elaboration with data retrieved from Clarivate Analytics (2017)

### 6. Conclusion

DS is a cross-disciplinary field of study that involves a variety of scientific disciplines, mainly within the Social Sciences. This cross-disciplinary character entails a complex process of forming the development discourse in which different disciplines are simultaneously proposing different (and sometimes contradictory) discourse components, and where there is (still) a "Western hegemony" in the production of knowledge despite the fact that most of the research is focused on analysing development challenges in the so-called "developing" countries.

As previous literature has not clarified the role and influence of academic journals in shaping the development discourse, this paper tries to shed some light on this issue, identifying the main areas of research and detecting the most influential countries, institutions and languages.

In order to do so, we review the pioneer contribution of the French philosopher of Science, Michel Foucault, which explains the "rules of formation" and the components of a scientific discourse. We also summarise the rules of formation of the "development discourse" following the studies carried out by Ziai (2013, 2016). According to this author, the adoption of four relevant assumptions (the existential assumption, the normative assumption, the practical assumption and the methodological assumption) allow us to talk "in singular" about the development discourse.

In the light of the previous explanations, we built an overall framework that formulates the process of formation of the development discourse in three interdependent and complementary levels: i) the discourse components (object, enunciative modalities, concepts and topics) and rules of formation; ii) the <u>institutions and actors</u> responsible for creating and fostering knowledge (such as scholars, universities, research centres, governments, multilateral organisations and the media); and iii) the <u>factors that add momentum</u> to the formation of the development discourse (such as the dissemination channels and academic DS networks). This analytical framework helps us to understand the context in which DS academic journals exert

their influence in the formation of the contemporary development discourse. Obviously, there are many other interdependent forces that simultaneously shape the discourse (such as other disseminations channels, academic networks and research centres, to name a few), which are reflected in our framework but are not part of our empirical analysis and thus constitute potential future lines of research.

Our sample comprises four journals that are included in the SSCI in the cross-disciplinary "subject category" of "planning and development". The journals are WD, D&C, TWQ and EJDR. The analysis produces six main findings for the period 2000-2015, which aided our understanding of the influence of these journals in shaping the contemporary development discourse:

Firstly, the journals coincide on various areas of common interest. In particular, they highlight issues related to aid, poverty, sustainability and development challenges, which also have a strong bearing on key contemporary development notions, such as aid effectiveness, governance, political capability and policy conditionality. A relevant result is that all these issues follow the "rules of the development discourse" —i.e. they adopt the four assumptions pointed out by Ziai (2013, 2016).

Secondly, despite being highly influential academic journals in the field of DS, the analysis uncovers the lack of evidence regarding the existence of "active areas of research" (which consist of clusters that include several nodes with strong "citation bursts"), a result that might be explained by several reasons: it is a consequence of the relatively low level of citations received by each journal, which is a common feature of cross-disciplinary fields of study in the Social Sciences. At the same time, it responds to a certain discursive relativism, which is a portrait of our present-day world. And it is also due to the growing public concern about a wide (and constantly growing) range of development issues; a complexity that is clearly represented

in the global development agenda (with the 169 goals and different topics covered by the Sustainable Development Goals), which blurs the influence of specific development topics.

Thirdly, some journals have a high level of dispersion across clusters. This lack of connection (which is true for D&C and EJDR in particular) exposes a certain level of fragmentation in the production of knowledge due to the low level of citations across clusters.

Fourthly, there is a high proportion of articles (between 18% and 34%, depending on the journal) that are "disconnected" to the rest of the citation networks generated in that journal because they contribute to different topics and they mostly receive "self-citations". According to our estimations, self-citation patterns may affect 17.5% of WD's articles, 19.9% of D&C, 26% of TWQ and 33.9% of EJDR. This result is related to the previous one and suggests an insufficiently clear editorial specialisation of the journals, which prevents them from building stronger clusters of citations and thus limits their influence in the formation of the development discourse.

Fifthly, in comparative terms, WD stands out as the most influential of the four journals analysed in the process of forming the development discourse. This is not only because this journal receives the highest number of citations (i.e. it has the largest nodes), but also because of its lower proportion of self-citation articles. Nevertheless, according to our tests, not even WD was able to generate citation bursts throughout the analysed period.

Sixthly, we find a strong geographical, institutional and linguistic bias in the scientific production in DS, which reveals a clear preponderance of the Anglo-Saxon Academia: USA and UK-based researchers are clearly leading the field).

These results may be useful for both development researchers and editors of development journals who wish to have a broader picture of the contemporary development discourse. In particular, for the editors of the four journals examined, the analysis identifies important challenges that need to be tackled with in order to increase their influence in the formation of

the development discourse. These challenges include the difficulty of generating citation bursts and active areas of research, the high proportion of self-citations, and the unclear editorial specialisation of some journals.

All in all, the incapability to generate active areas of research in the last 15 years is a clear constraint to influencing development discourse. This indicates the relevance of other discursive forces operating outside the academic journals that have not been considered in this paper. Disentangling these forces is a good platform for future research. In any event, the historical preponderance of some disciplines, in particular mainstream Economics, languages, particularly English, and countries, mainly Western scientific leading countries, are plausible causes preventing the emergence of discursive bursts in contemporary DS, which should be unveiled.

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