

Retraction

Retracted: Symbiosis Mechanism of Academic Journals and Discipline Construction in Chinese Colleges

Discrete Dynamics in Nature and Society

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

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- [1] W. Li and H. Gao, "Symbiosis Mechanism of Academic Journals and Discipline Construction in Chinese Colleges," *Discrete Dynamics in Nature and Society*, vol. 2021, Article ID 7703972, 8 pages, 2021.

Research Article

Symbiosis Mechanism of Academic Journals and Discipline Construction in Chinese Colleges

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Academic journals and discipline construction in colleges are two major drivers of scientific progress. There is a complex interactive mechanism between the two drivers. The synergy between the two is worthy of in-depth research. The research aims include better developing academic journals with discipline advantages and back-feeding discipline construction with academic journals. The symbiotic theory provides a new research perspective for the cooperation mechanism between college academic journals and discipline construction. Drawing on the symbiotic theory, this paper explores the root causes and interactive logic of the collaboration between college academic journals and discipline construction, from the angles of the symbiotic unit, symbiotic environment, and symbiotic model. The results show that the symbiosis between academic journals and discipline construction in Chinese colleges mainly relies on two essential parameters, namely, academic talents and research results; although colleges provide a positive environment, the symbiosis between the two factors mostly takes place on unofficial information platforms and cooperation mechanisms, for the relevant policies are relatively new and mostly discipline-oriented; the symbiosis between college academic journals and discipline construction is mutualistic but remains in the intermittent stage. Therefore, it is important to find a more effective symbiotic path for college academic journals and discipline construction, following their symbiotic law.

1. Introduction

Duderstadt defined college as a group of academic activities. Whether it is teaching, scientific research, or social services, higher education always stems from advanced and profound knowledge [1]. Academy is the most essential feature and a core function of colleges, regardless of the development and evolution of college functions. Since their birth, academic journals are the carrier to record the development of disciplines under the background of the times, an important hub for building an academic environment, and a key territory for academic evaluation. Disciplinary construction is the basic construction of talent training, scientific research, and service to society. “Knowledge,” “cultivating academic talents,” “creating a good academic environment,”

and so on are the main missions. Naturally, there are more complicated interactive mechanisms between academic journals and disciplines. It is of great significance to better develop academic journals with discipline advantages and back-feed discipline construction with academic journals.

Extensive studies have been conducted on the relationship between college academic journals and discipline construction. For instance, Yang and Liu [2] suggested that college academic journals can lead, drive, and accelerate the construction of first-class disciplines. Similarly, Zhang [3] believed that academic journals can serve, spread, and lead discipline construction. Chen et al. [4] clearly stated that high-quality scientific journals can promote discipline construction from multiple perspectives, e.g., talent training and scientific innovation, and running SCI- (science citation

index-) indexed journals will contribute to ESI (essential science indicators) disciplines [5]. In addition, Liu [6] systematically reviewed how the *Chinese Journal of Theoretical and Applied Mechanics* promotes the development of mechanics [6]. Zang and Zhu [7] compared the difference between colleges of Jiangsu Province and Hubei Province in the interaction between liberal arts academic journals and discipline construction. Liu et al. [8] explored the synergy model between Traditional Chinese Medicine (TCM) journals and online pharmacology. Tang et al. [9] surveyed the overall situation of how college scientific journals serve discipline construction and provided relevant suggestions.

Overall, the relationship between academic journals and discipline construction has been studied extensively from various angles, yielding fruitful results. However, most studies emphasize the interpretation of macro policies over the deep-seated issue: the root causes and interactive logic of the collaboration between college academic journals and discipline construction. Besides, the internal mechanism of the interaction has not been clearly understood. The in-depth cooperation mechanism between the two is not sufficiently clear, and it does not thoroughly analyze how academic journals have become important platforms and valuable resources for the development of disciplines, nor is it clear that the two are coconstructing research platforms, condensing academic directions, and transforming scientific research results. And the studies do not mention the long-term issues such as incorporating the development of academic journals into the evaluation of discipline construction.

Drawing on the classic symbiotic theory of social sciences, this paper probes deep into the root causes and interactive logic of the collaboration between college academic journals and discipline construction, from the angles of the symbiotic unit, symbiotic environment, and symbiotic model. The research purpose includes clarifying the essential role and positioning of academic journals to discipline construction on the academic level, optimizing the synergy mechanism, correcting the orientation on the practical level, making the two factors more integrated, and realizing both goals simultaneously: discipline construction and journal development.

2. Current Symbiosis Situation

Discipline construction is the lifeline of college development. Over the years, Chinese colleges have been pushing forward discipline construction. The focus of discipline construction gradually shifts from general disciplines, key disciplines, to first-class disciplines. Each stage of development is featured by inheritance and innovation [10, 11]. Following the law of sustainable development, every discipline has gone through the iterative update of knowledge and organizational structure (Figure 1).

In 2018, our research team carried out a survey on the discipline and departments in 75 colleges directly under the Chinese Ministry of Education. The survey data carry the following statistical features:

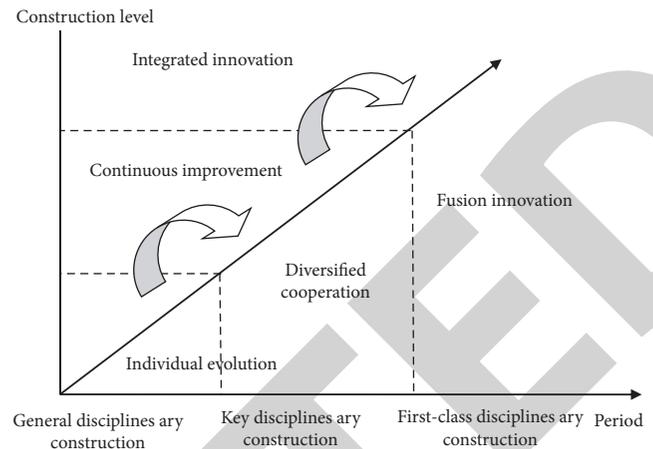


FIGURE 1: Evolutionary periods of discipline construction.

- (1) The 75 colleges run 1,477 first-level doctoral disciplines and 2,337 first-level master disciplines
- (2) The 75 colleges operate a total of 1,754 schools; i.e., each college has an average of 23 schools
- (3) The 75 colleges employ 156,390 full-time teachers; i.e., each college has an average of 2,085 full-time teachers

The discipline construction in China has been making sound progress, thanks to the cultivation of talents, the construction of bases, and the expansion of objectives.

To clarify the development state of college academic journals and discipline construction, our research team surveyed some colleges and analyzed the collected data (Table 1; Figures 2–4). The data analysis shows that (1) colleges run more academic journals than their first-class disciplines; (2) in general, colleges doing well in discipline construction (having lots of first-class disciplines) tend to run many academic journals; (3) overall, colleges doing well in discipline construction (having lots of first-class disciplines) tend to run high-quality journals; (4) other than Zhejiang University, each of the remaining 18 colleges has fewer SCI-indexed journals than Chinese Social Sciences Citation Index- (CSSCI-) indexed journals.

Two important facts can be inferred from the above analysis: first, the academic journals and discipline construction in Chinese colleges have a certain agglomeration effect and an obvious gradeability. Second, few academic journals sponsored by Chinese colleges are SCI-indexed or intentionally renowned; the discipline advantages are not prominent, as the SCI-indexed journals cover too few ESI disciplines.

To sum up, Chinese colleges have attached great importance to running academic journals based on key disciplines, and academic journals enjoy better technical tools and editors than ever. However, the academic journals are not highly matched with first-class disciplines. Their ability to report academic achievements is yet to be improved. In addition, academic journals face critical problems like weak influence and inaccurate positions. To optimize discipline

TABLE 1: Discipline construction in universities and number of sponsored academic journals.

Number	College name	Number of first-class disciplines	Number of academic journals	SCI	Chinese Science Citation Database (CSCD)	CSSCI	Number of high-quality academic journals
1	Peking University	41	56	2	13	9	24
2	Tsinghua University	34	62	3	8	10	21
3	Zhejiang University	18	33	5	16	3	24
4	Fudan University	17	43	1	9	6	16
5	Nanjing University	15	37	0	6	2	8
6	Renmin University of China	14	41	0	0	13	13
7	Beijing Normal University	11	33	1	2	7	10
8	Southeast University	11	11	0	1	2	3
9	University of Science and Technology of China	11	4	1	3	2	6
10	Sun Yat-sen University	11	28	0	5	4	9
11	Wuhan University	10	54	0	8	11	19
12	China Agricultural University	9	5	0	3	1	4
13	Huazhong University of Science and Technology	8	33	0	5	5	10
14	Beihang University	7	8	0	4	0	4
15	Sichuan University	6	40	1	16	3	20
16	Nankai University	5	16	0	1	3	4
17	Jilin University	5	38	3	8	8	19
18	Xiamen University	5	22	0	1	5	6
19	National University of Defense Technology	5	4	0	2	0	2

Note. This table only covers the Chinese colleges with at least 5 first-class disciplines and arranges them in descending order by the number of these disciplines.

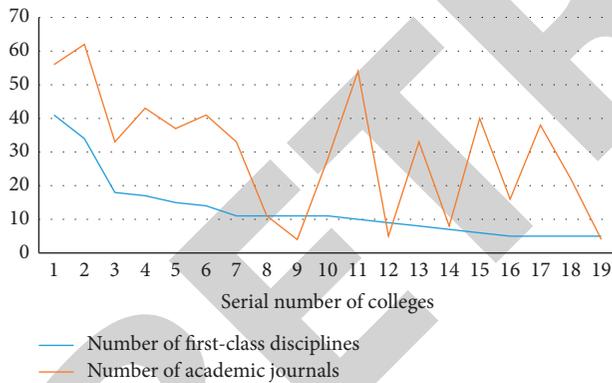


FIGURE 2: Relationship between the number of first-class disciplines and the number of academic journals.

construction and academic journals, it is a must to find a more effective path for the symbiosis between the two.

3. Three Symbiotic Elements

In 1879, German biologist Anton de Bary created the concept of symbiosis. Since the 1950s, the symbiosis theory has been applied to management, sociology, and many other fields. Symbiosis means two or more organisms coexist and coevolve according to a specific model of interdependence and interaction, for the purpose of survival. The symbiotic state (S) between them basically covers three elements: symbiotic unit (I), symbiotic model (W), and symbiotic environment (O) [12]:

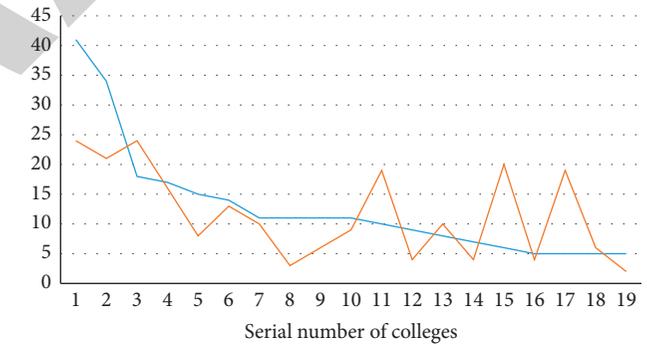


FIGURE 3: Relationship between the number of first-class disciplines and the number of high-quality academic journals.

$$S = f(I, W, O), \tag{1}$$

where I is the basis, W is the key, and O is the condition. Any symbiosis state (S) is a combination between I , W , and O . Theoretically, if I , W , and O can be expressed as a series of continuous values, then S will be changed by altering at least two of the three elements. That is, for $S_i = (I_i, W_i, O_i)$, $S_j = (I_j, W_j, O_j)$, if $S_i \neq S_j$, then at least $I_i \neq I_j$ and $W_i \neq W_j$. So far, the symbiotic theory has permeated a number of disciplines, suggesting that internal-external symbiosis is a major source of evolution or innovation [13]. The essence of symbiosis is mutual dependence

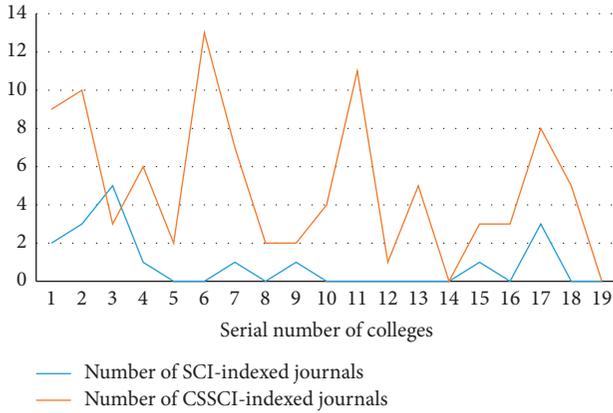


FIGURE 4: Relationship between the number of SCI-indexed journals and the number of CSSCI-indexed journals.

and mutual benefit and the pursuit of collaborative development through cooperation. Undoubtedly, the development of college academic journals and discipline construction hinges on their mutual dependence and mutual benefit.

3.1. Symbiotic Unit

3.1.1. Compatibility of Essential Parameters. The symbiotic unit (I) is the main body of symbiosis. As the basic unit of material generation and energy exchange, each symbiotic unit boasts strong resource complementarity. In this paper, there are two symbiotic units: college academic journals and discipline construction. The internal attributes of a symbiotic unit are reflected by essential parameters. The symbiosis state (S) between two symbiotic units is premised on the presence of at least one group of compatible essential parameters. These parameters can effectively manifest the flow and transformation of matter, energy, information, and talents between academic journals and disciplines, making it possible for the two to be compatible with each other. In general, an essential parameter can be described by input-output (Tables 2 and 3).

Let A be a college academic journal. Then, A can be described as $A = (Z_{a1}, Z_{a2}, \dots, Z_{ai})$, where Z_{ai} is an essential parameter of A . Similarly, discipline construction can be illustrated as $B = (Z_{b1}, Z_{b2}, \dots, Z_{bi})$, with Z_{bi} being an essential parameter of B .

According to the symbiotic theory, two symbiosis units must have at least one group of compatible essential parameters, i.e., at least one $Z_{ai} = \varphi(Z_{bi})$. Drawing on the actual situation of Chinese colleges, and referring to Tables 2 and 3, it can be learned that academic journals transform energy, material, and information (e.g., manuscripts, human resources, and capital) into outputs like research papers and academic talents. This process reflects the transfer and transform of the internal energy of academic journals during the operation. As for discipline construction, teachers and capital inputs can be converted into outputs like personnel training, research results, and subjects.

The typical essential parameters of college academic journals and discipline construction mainly interact in two ways.

First, academic talents, as an important output of academic journals, belong to the teachers' input of discipline construction: $Z_{a6} = \varphi(Z_{b1})$. Broadening subject field and promoting academic exchanges, two other outputs of academic journals, are important inputs of discipline construction: $Z_{a7} = \varphi(Z_{b3})$ and $Z_{a8} = \varphi(Z_{b3})$.

Second, research results (especially academic papers), as an important output of discipline construction, are a key input of academic journals: $Z_{b5} = \varphi(Z_{a1})$; personnel training, as a major output of discipline construction, provides academic journals with reviewers, editors, and readers: $Z_{b4} = \varphi(Z_{a2})$.

3.1.2. Appropriate Correlation. Through the analysis of essential parameters, it can be further assumed that the symbiotic correlation δ_{ab} between the primary essential parameter Z_a of academic journals (A) and that Z_b of discipline construction (B) satisfies

$$\delta_{ab} = \frac{dZ_a/Z_a}{dZ_b/Z_b}. \quad (2)$$

Both academic journals and discipline construction focus on academic research. They are naturally correlated in terms of the production of academic papers, the training of academic talents, and the promotion of academic exchanges. The resource interaction between the two is extremely complex, showing a symbiotic correlation δ_{ab} (Figure 5).

3.2. Symbiotic Environment

3.2.1. Main Symbiotic Environment. In general, there is a certain positive symbiotic environment (O) between academic journals and discipline construction in Chinese colleges. But the environment is not sound enough to sufficiently excite symbiotic units. The symbiotic efficiency between academic journals and discipline construction remains low, and the allocation of resources is not sufficient. The main symbiotic environment falls into three categories: the policy environment (O_1), the online environment (O_2), and the spatial location environment (O_3).

On the policy environment (O_1), almost every college has formulated some policies to encourage the cooperation and symbiosis between academic journals and discipline construction. Nevertheless, the policies are mostly discipline-oriented, emphasizing how academic journals should serve and cooperate with the development of disciplines. There is no policy on how disciplines should improve the social and economic benefits of academic journals. Unlike schools and administrative departments, the journal departments are in a marginal position and not highly valued by colleges. Scarcely any colleges have introduced strategic policies or measures to promote the symbiosis between academic journals and discipline construction. Even if a few such policies have been prepared, it is still too early to observe their implementation effects.

TABLE 2: Essential parameters of college academic journals.

Academic journals	Inputs				Outputs			
Essential parameters	Z_{a1}	Z_{a2}	Z_{a3}	Z_{a4}	Z_{a5}	Z_{a6}	Z_{a7}	Z_{a8}
	Manuscripts	Human resources	Capital	Other resources	Research papers	Academic talents	Broadening subject field	Promoting academic exchanges

TABLE 3: Essential parameters of discipline construction.

Discipline construction	Inputs			Outputs		
Essential parameters	Z_{b1}	Z_{b2}	Z_{b3}	Z_{b4}	Z_{b5}	Z_{b6}
	Teachers	Capital	Other resources	Personnel training	Research results	Subjects

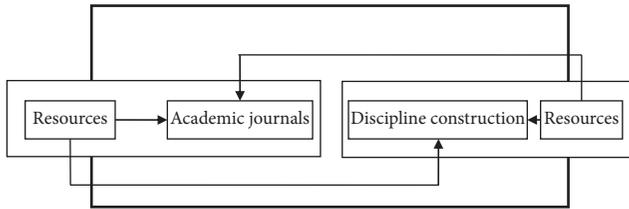


FIGURE 5: Resource interaction between academic journals and discipline construction.

On the online environment (O_2), academic journals and many disciplines have established diversified unofficial information platforms and cooperation mechanisms, aiming to expand their respective development space. Despite the lack of supportive policies from colleges, these platforms and mechanisms lay a good foundation and accumulate valuable experience for the symbiosis between the journals and disciplines. Driven by the strong desire for symbiosis, the two factors have implemented various forms of cooperation.

On the spatial location environment (O_3), the operation of college academic journals and discipline construction often take place on the same campus. The close geographical distance greatly facilitates the close cooperation between academic journals and discipline construction.

Then, the incentive level E of the symbiotic environment can be expressed as

$$E = \alpha O_1 + \beta O_2 + \chi O_3, \quad (3)$$

where, α , β , and χ are the weights of O_1 , O_2 , and O_3 , respectively. The greater the E value, the better the symbiotic environment.

3.2.2. Complex Relationship between Symbionts and Symbiotic Environment. The symbiotic environment could exert positive, neutral, and negative effects on the symbionts. In return, the symbionts of academic journals and discipline construction could provide positive, neutral, and negative feedback to the environment. The different effects and feedback can make up nine different types of actions (Table 4).

3.3. Symbiotic Model. The symbiotic relationship between symbiotic units is embodied by the symbiotic model, which reflects the specific combination pattern of symbiotic unit combination and carries the features of the energy exchange between symbiotic units.

3.3.1. Determining Symbiotic Model. The symbiosis between college academic journals and discipline construction follows an obvious mutually beneficial model: the symbiosis can generate new energy and give each party new energy.

For discipline construction, the symbiosis with academic journals brings the following benefits.

First is the display of discipline construction results. Since their inception, academic journals have been an important showroom for the academic level of various disciplines. Through these journals, the teaching and research results of various disciplines are displayed in the teaching and research results of various disciplines manners. In particular, the important research results of key disciplines have been disseminated and recognized rapidly.

Second is the guidance of subject direction. Academic journals can promptly and accurately select key topics and enforce academic norms to various disciplines, pushing the relevant fields deeper.

Third is the training of academic talents. The quality of academic journals cannot be assured without close contact and frequent communication with talents in various disciplines. The journals not only attract famous scholars in the disciplines to their editorial boards but also arouse the research enthusiasm of academic talents.

Fourth is the cultivation of interdisciplinary, frontier, and marginal disciplines. Facing intense competition, academic journals are keen to publish comprehensive and multidisciplinary academic results. They can tap the potential of development for professional disciplines from the perspective of academic research and disciplinary development and provide suggestions for long-term discipline construction.

Fifth is the exchange of research information. As a tool of information exchange, college academic journals must build various academic platforms to provide scholars with rich academic information.

TABLE 4: Complex relationship between symbionts and symbiotic environment.

Effect of symbiotic environment	Feedback from symbionts		
	Positive	Neutral	Negative
Positive	Two-way incentive	Environmental incentive	Symbiont resistant, environmental incentive
Neutral	Symbiont incentive	Two-way neutral	Two-way neutral
Negative	Environmental resistant, symbiont incentive	Environmental resistant	Two-way resistant

For academic journals, the symbiosis with disciplines benefits their sustainable, high-quality, and characteristic development.

First, discipline construction improves the academic quality of the journals. The soundness of disciplines and the discipline system create the conditions to produce high-quality papers and lay the basis for structural optimization of the journals. These effects, coupled with the support from well-known editors, can drive up the academic level of every journal.

Second, discipline construction highlights the features of academic journals. With the aid of the key and superior disciplines at the college, the journals can create and maintain high-quality and branded columns and attract more readers with their unique content.

Third, discipline construction strengthens the author team of academic journals. The core of discipline construction is the cultivation of academic teams. Through the formation of an echelon of academic talents, discipline construction can increase the number and quality of high-level talents and produce the main force and reserve force of scientific research for various disciplines. The talents will run many new scientific projects and improve the research quality. Further, the research talents are naturally in favor of the journals sponsored by their colleges. Their research results will greatly enhance the research level of the author team of these journals.

3.3.2. Logistic Analysis of Symbiotic Model. The logistic model is often used to describe the symbiotic relationship between populations. The evolution of the relationship between college academic journals and discipline construction could be depicted by the logistic growth model because the density of these two populations is constrained by various factors.

Hypothesis 1. In the symbiotic system, there is only one academic journal department and one discipline construction department. The symbiosis occurs rightly between the two departments. The presence of any subject in the system will promote the growth of system energy.

Hypothesis 2. The actual energy of academic journal (A) and discipline construction (B) at time t is $S_A(t)$ and $S_B(t)$, respectively. Apart from time, t also represents all the other elements that could affect the actual energy of A and B , e.g., information and technology. After all, all these elements can be simplified as a function of time. Under the effects of the

symbiotic model and environment, the independent variable t has a nonlinear effect on the energy output of each symbiotic unit.

Hypothesis 3. In a certain period, it is assumed that the element endowments of each symbiotic unit are fixed within a specific spatial range. The independent peak energies of A and B , denoted separately as N_A and N_B , are fixed, because they both depend on the intrinsic features of A and B .

Hypothesis 4. Let S/N be the natural growth saturation of A and B . Under the current constraints, $(1 - S/N)$ represents the natural growth resistance of the two symbiotic units. Similarly, the natural growth saturations of A and B in the symbiotic relationship at t can be described as $(S_A(t))/N_A$ and $(S_B(t))/N_B$, respectively; the natural growth resistances of the two can be illustrated as $[1 - ((S_A(t))/N_A)]$ and $[1 - ((S_B(t))/N_B)]$, respectively.

Hypothesis 5. Let G_A and G_B be the contribution of the natural growth saturation of A to that of B and the contribution of the natural growth saturation of B to A , respectively. If A and B have a symbiotic relationship, then $G_A > 0$ and $G_B > 0$. Let D_A be the resistance of A on its own growth. If $G_A > D_A$, then, under the symbiotic relationship, the contribution of B to A 's development surpasses the resistance of A on its own growth. Similarly, if $G_B > D_B$, then the contribution of A to B 's development surpasses the resistance of B on its own growth. Note that if the two are independent (i.e., not symbiotic), the growth of A and B , respectively, obeys the logistic growth model. Their mean natural growth rates can be denoted as r_A and r_B , respectively.

Under the above settings, the energy growth models of A and B in the independent state (i.e., not symbiotic) can be, respectively, established as

$$\begin{aligned} \frac{dS_A(t)}{dt} &= r_A S_A \left(1 - \frac{S_A}{N_A}\right), \\ \frac{dS_B(t)}{dt} &= r_B S_B \left(1 - \frac{S_B}{N_B}\right). \end{aligned} \quad (4)$$

According to the analysis of the symbiotic model in Part 2, the academic journals and discipline construction in Chinese colleges obviously have a mutually beneficial symbiotic model. The symbiosis between the two factors can generate new energy, which is allocated to both parties. Under such an ideal symbiotic model, an additional term

$G(S/N)$ was introduced to the natural growth resistance $(1 - (S/N))$ of each symbiotic unit. Then, the growth model of the two symbiotic units can be, respectively, expressed as

$$\begin{cases} \frac{dS_A(t)}{dt} = r_A S_A \left(1 - \frac{S_A}{N_A} + G_A \frac{S_B}{N_B} \right), \\ \frac{dS_B(t)}{dt} = r_B S_B \left(1 - \frac{S_B}{N_B} + G_B \frac{S_A}{N_A} \right). \end{cases} \quad (5)$$

Further, it can be derived that $P_1((N_A(1+G_A)/1-G_A G_B), (N_B(1+G_B)/1-G_A G_B))$ and $P_2(0, 0)$ are the equilibrium points of formula (5).

Similarly, Taylor expansion was performed on the model at point $Q(S_A^0, S_B^0)$, without removing the constant and first-order terms. For this reason, $P_2(0, 0)$ should be discarded. Hence, $G_A G_B < 1$ constitutes the conditions for $P_1((N_A(1+G_A)/1-G_A G_B), (N_B(1+G_B)/1-G_A G_B))$ being a stable solution of the mutually beneficial symbiotic model. From the features of this model, it can be learned that $G_A < 1$ and $G_B < 1$. When A and B reach the equilibrium state, the actual energy of the two parties can be, respectively, described as

$$\begin{aligned} N_A^0 &= \frac{1+G_A}{1-G_A G_B} N_A, \\ N_B^0 &= \frac{1+G_B}{1-G_A G_B} N_B. \end{aligned} \quad (6)$$

Hence, both A and B have higher energy under the symbiotic state than that under the independent energy. Both parties gain energy through symbiosis.

4. Conclusions (Optimal Symbiotic Path)

The above analysis shows the necessity to find a more effective path for the symbiosis between A and B , in the light of their symbiotic laws.

- (1) The symbiosis between A and B needs to be consistent with the overall development strategy of the college. Both A and B should track the development strategy and work priorities set by the college. For example, A should provide more rooms for key and superior disciplines in column setting and manuscript acceptance and actively support emerging disciplines because for the development of disciplines, the construction of the discipline discourse system is closely related to the academic publishing system and academic publishing channels, and the results of discipline construction need to be displayed in the form of papers. Therefore, academic journals should focus on publishing new research directions and interdisciplinary research results. More manuscripts from extramural authors could be accepted to stimulate the research enthusiasm of intramural authors. These efforts will continuously promote the construction of disciplines
- (2) The symbiosis between A and B needs the improvement of both symbiotic units. First, the

symbiotic units should enhance the compatibility, diversity, and complementary of the essential parameters, i.e., mine out the broader and deeper mutual needs between A and B , making the two parties inseparable. Second, the quality of existing essential parameters should be improved by each unit, based on the current needs, that is, continuously improve their outputs without requiring more inputs. For instance, A should publish more influential research papers and offer more diverse platforms for academic exchanges, trying to expand the disciplinary fields. Meanwhile, the disciplines should devote more energy to cultivating high-level talents, who will produce more high-quality research results. For academic journals, senior experts and young talents in the subject field can become the editorial board of academic journals. They are more active in the field of research, have a higher level of scientific research and strong academic influence, and can help the journal invite more papers

- (3) The symbiotic model between A and B needs optimization. Through the integration of strategies and concepts, A and B should develop a more diverse, classified, and layered symbiotic model. For example, A can innovate discipline service methods, build a full-service chain for superior disciplines, strengthen the knowledge generation, dissemination, and transformation of these disciplines, and link and integrate the professional knowledge resources of superior disciplines through support platforms and service mechanisms. For example, academic journals can provide services for scientific research by adopting media integration methods such as enhanced publishing, popular science news, knowledge questions and answers, special libraries, knowledge packages, streaming media processing, and video planning and processing
- (4) The symbiosis between A and B requires a good symbiotic environment. As the main supplier of the environment, the college must promote symbiosis by providing a sound policy environment, an advanced online environment, a rich information environment, a reasonable space environment, and harmonious social norms. For example, on the basis of respecting the inherent logic of scientific development, universities should rationally plan the overall discipline layout of journals and guide and support academic journals to quickly occupy the frontier interdisciplinary fields. Universities must also provide adequate funding and policy support for academic journals, allowing academic journals to explore more flexible salary systems and performance appraisal systems

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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