

A Reflection on the Mechanisms of the Globalization of Constitutional Law with an Emphasis on Developments in the Field of Science

Sajjad. Reyhaninejad¹, Pouneh. Tabibzadeh^{1*}, Moein. Sabahi Garaghani²

¹ Department of Public Law, Raf.C., Islamic Azad University, Rafsanjan, Iran

² Department of Law, Ke.C., Islamic Azad University, Kerman, Iran

* Corresponding author email address: 0059990775@iau.ir

Received: 2025-07-11

Revised: 2025-11-23

Accepted: 2025-11-30

Initial Publish: 2025-12-02

Final Publish: 2026-09-01

The internationalization of constitutional law, or in other words, the incorporation of international law into domestic legal systems, is a domain that has not historically received significant attention. This trend has changed in recent years, as more and more scholars have concluded that the internationalization of legal systems is a key component of our understanding of the role that international law plays in shaping state behavior. In the context of law and international relations, the incorporation of international law into the constitutions of states constitutes a fundamental element through which international law not only becomes binding on states, but can also transform public perceptions regarding global norms and acceptable behaviors. The implementation of an international legal principle agreed upon by states at the international level requires a mechanism through which legal norms are integrated into domestic understandings of proper and lawful conduct. Just as domestic law is rooted in culturally related legal norms and institutions—for example, constitutional law in the United States—international law must also be institutionalized to the extent necessary to shape state conduct.

Keywords: Globalization, Constitutional Law, Scientific Developments

How to cite this article:

Reyhaninejad, S., Tabibzadeh, P., & Sabahi Garaghani, M. (2026). A Reflection on the Mechanisms of the Globalization of Constitutional Law with an Emphasis on Developments in the Field of Science. *Interdisciplinary Studies in Society, Law, and Politics*, 5(3), 1-11. <https://doi.org/10.61838/kman.isslp.373>

1. Introduction

The internationalization of constitutional law is not a new issue. Ideas that can be described as constitutional in nature have always existed freely within the territories of different countries. Conquerors and the founders of great empires inevitably transferred their political views to new parts of the world. No constitution has ever been written in a vacuum, without being influenced by existing models.

Since the second half of the twentieth century, however, the internationalization of constitutional law has accelerated and expanded significantly. Among the initial

reasons for this development are geopolitical events such as World War II and the collapse of Communism in Europe in 1989. This may be considered a catalyst for reactions against authoritarian regimes in other parts of the world. The consequences and implications of the internationalization of constitutional law have increased with the rise in the number of United Nations members from 51 founding members in 1945 to 159 in 1990 and to 193 in 2012 (Arthurs, 2009). It should also be noted that remarkable revolutions in the ease of travel and communication technologies have further intensified this trend. The instant availability of information about



the constitutions of other countries, along with the ability to search for related interpretations and commentaries, has driven this phenomenon forward. Another important factor is the growing use of English as a common language for this purpose, as an increasing number of countries make their constitutional information publicly available online in English. Clearly, it is impossible to provide a comprehensive account of the complex effects of internationalization on the legal arrangements of states worldwide; however, it is necessary to move beyond generalizations (Nabi Rahni, 2013). In the following section, the main pathways of internationalization and how they contribute to the convergence of this phenomenon will be examined.

2. Terminology: International, Transnational, and Global

The term “global public law” is not free from ambiguity or doubt. The first point of uncertainty regarding its terminology lies in the adjectives “international” and “global.” Is global administrative law different from international administrative law, or are they simply two names for the same phenomenon? Two possible explanations can clarify this issue to some extent.

The first explanation relates to the use of the term “international public law” in public international law. In classical legal discussions, the activities of international organizations were examined from an administrative law perspective and focused on the internal activities of such organizations. These included legal matters concerning the personnel of these organizations, issues related to budgeting, or the resolution of internal disputes (such as the Administrative Tribunal of the United Nations and similar international organizations). A closer examination shows that the administrative relationships created by the external activities of these organizations possess unique administrative structures that are unrelated to their founding. These organizations are run by a network of officials, and no state acts as a sovereign force in this framework. The concept of transnationalism (see below) is clearly evident in these organizations. International oversight of financial markets, laws on cross-border regional cooperation, and even cooperation with the private sector (multinational corporations) are just a few examples of the administrative law approach currently in practice. This law concerns the foundations and limits of power at the

global level, showing that the distinction between international and domestic organizations and institutions is not so significant as to jeopardize public law as a principle. To summarize this first analysis, it can be said that it is difficult to clearly distinguish international law from global public law (Heywood, 2018).

The second explanation focuses on certain aspects of terminology development and foundational debates. In Germany legal literature, the term “international administrative law” has been used specifically for a very long time. It is sometimes even used synonymously with “private international law” (meaning the conflict of laws in private law). This law concerns the intersection of jurisdictions and the application of a specific state’s law in a particular case. Such questions have been discussed for a long time: Can a foreign law truly be applied in an area entirely governed by domestic authorities and national constitutional requirements? Although this contradiction has never been completely resolved, it has now largely lost its significance. German scholars now tend to focus on the three-dimensional concept proposed by Eberhard Schmidt-Aßmann, which (1) distinguishes between the law of international administrative institutions, (2) examines the enforceability of administrative provisions at the national level, and (3) enables participation in multilateral cases (for example, among different countries) (Chalmers, 2019). It is clear that conflict-of-law questions cannot be integrated into this concept.

Here, an example from the field of science can be considered. Conducting biological research of doubtful ethical validity by an international research organization is a case worth considering. Such research may be governed by the rules enacted by that same organization or may refer to the laws of the various countries involved in the project. The laws of different countries (the country where the research institution is located, the place where the project is implemented, or the countries of which most researchers are citizens) will inevitably conflict. Before finding solutions to such problems, a comprehensive review is useful. This reduces the potential for misunderstandings and clarifies that international administrative law is not limited solely to administrative and judicial conflicts. Overall, this second analysis suggests that the term “international administrative law” is not misleading and can be used

alongside “global administrative law” (Zarei, 2007). Consequently, the two terms “international” and “global” are practically synonymous and can both be used to refer to the same concept.

The next concept to examine is “transnational,” which has been in use for more than fifty years. Philip C. Jessup coined the term “transnational law” in 1956. His aim was to emphasize that international legal relations cannot be fully understood if viewed only as relations between nations. Clearly, sub-state entities and private institutions must also be involved in legal matters beyond domestic jurisdictions. This perspective focuses specifically on cross-border relations beyond a particular state’s jurisdiction and does not eliminate traditional legal relations. As a result, transnationalism aligns with the general view of a borderless global legal order.

The idea of transnationalism as the integration of private institutions and individuals into international law is relatively sound, with only minor criticisms. One concern is the potential loss of the essential distinction between state institutions (the state and its public agencies) and the private sector (companies and partnerships). The fundamental distinction between freedom—comprising the freedom of individuals and companies in private enterprises—and the power and authority held by private companies (which must be regulated within legal norms) must always be considered in any approach to international law (Hedayat & Mashhadi, 2010).

If this risk is addressed, the concept of transnationalism can be very useful for analyzing the legal governance of science. In this area, states act as players, and state-funded or state-run research projects are not exceptions. However, ignoring the specific concept of integrating private institutions and legal relations beyond state actors would be a failure, as many private and public institutions are engaged in scientific research (Hall & Lewis, 2017). Paradoxically, the multitude of cross-border legal relationships related to science are viewed by Jessup as transnational. Cross-border relationships between universities, institutions, and private companies active in science have expanded jurisdictional boundaries and are not limited to state activities. Although Jessup intended to give a clear meaning to the term “transnational,” it is now used synonymously with “international” in a broader sense. This broader sense refers to the common practice of merging transnational

relations with the enduring concept of international law, while also logically integrating them into global administrative law.

In conclusion, terminological differences should not be exaggerated. Global administrative law inherits many generative concepts, including changes in international law, conflict-of-laws analysis in public law, and the discovery of transnational legal relations. Using the term “global administrative law” is primarily a matter of practical and integrative reasons rather than exceptionality. Therefore, the terms “international” and “transnational” should be used with contextual appropriateness in mind, not as a deviation from the main approach, but as an emphasis on different dimensions of a single developmental process (Baer, 2004).

3. Global Public Law and Global Governance

Another approach whose benefits should not be overlooked is the more recent concept of global governance, which has entered the intellectual framework of International Law from various areas of Social Sciences. Although this concept is not indispensable for analyzing the management of scientific activities at the global level, its specific functioning must be taken into account.

The concept of governance is generally significant because of its analytical and descriptive nature. Governance refers to the situations and regulatory processes within complex structures. Through the lens of governance, institutions and tools of governmental hierarchies, networked oversight structures, and self-regulatory mechanisms can be comprehensively analyzed. A key change in this perspective has been the shift in focus from executive actors to regulatory structures. It should also be added that the substantive content of the term governance in international law is different from “good governance” as referenced in World Bank policies.

The term governance is derived from the notion of good governance, but this concept has been transferred to a level beyond the domestic sphere. It is well established in the social sciences, yet despite the many definitions proposed by various scholars (governance being defined as the set of different ways through which individuals and institutions, both private and public, manage their routine affairs), the concept remains ambiguous. When

the concept of global governance is referenced in international law literature, regulatory structures are usually analyzed from more prominent perspectives such as economics, environment, security, or communications. What is important in this context is the development of problem-solving capacity, so that despite the multiplicity of actors, they can still act in an organized manner.

Therefore, it is striking that global governance of science has not yet been analyzed in social sciences or international law. The most recent writing on this subject is the well-known article by Manfred Lachs, former president and judge of the International Court of Justice, published in 1992. This article, entitled *"Thoughts on Science, Technology, and the World of Law,"* contains valuable and well-grounded scientific ideas (although the author passed away shortly after its publication), but it has remained at the level of theoretical reflection (Ghazi Noori, 2018).

In legal research literature, this concept has been used as an analytical tool for international law. There is no doubt that the analytical advantages of the idea of governance for describing reality are acknowledged; however, scholars have pointed out the lack of clear legal requirements to regulate and limit power as one of the weaknesses of this concept.

Nevertheless, this does not diminish the analytical value of the concept of global governance. The fact is that, given the proliferation of executive actors and the broad range of principles and regulations in the international domain of science, progress cannot be made without an analytical perspective that goes beyond state and national boundaries. The emphasis on regulatory structures has been stressed by regulatory theorists, but it must be acknowledged that there is no need to discard legal rights and values to preserve them—provided that these structures do not ultimately eliminate legal obligations. At this stage, the regulatory approach serves as the foundation for practical measures and legal safeguards applied under global administrative law (Ahmadinejad, 2014).

4. The Global Scientific Community and Multilevel Law

The idea of the law of a global scientific community is essentially focused on the fundamental legal principles and structures considered as the foundation of the global

community. At the core of this concept lies the international community as an entity with public-law relationships governed by principles and structures that are not merely a collection of states and other legal subjects.

The statutes or governing laws of global scientific associations do not form a unified theory. Many of the scholars who have proposed this theory have regarded the United Nations Charter as the structure and basis of this law. Consequently, authors such as Alfred Verdross and Hermann Mosler, and contemporary authors like Bardo Fassbender, have sought elements of global law within the UN Charter. There are compelling reasons for this, including the Charter's constructive role in the post-World War II era, its rule-based structure, its hierarchical nature (Article 103), its limited amendments and robust framework, its character as a charter rather than a treaty or document, its decisive role in the development of transnational law, and ultimately its universality and inclusiveness.

From the perspective of other scholars, transnational regimes can be considered the basis for drafting law at the global level, while another group emphasizes that the global scientific community of public law should, in addition to constituting a unified whole, also encompass lawmaking in abstract domains such as economics or trade. What is more or less common across all these approaches is the description of the constituent elements of an international charter or law. All authors emphasize the same values, which are present in all documents and theories of public law and also in the core principles and rules of international law (No Behhar, 2018).

Based on the theoretical diversity in the concept of law, the development of the law of the international public-law community can be incorporated into the concept of modern global law. Legal knowledge-based arguments serve as a bridge between structural mechanisms and the foundational values of international law while also providing a framework for legal analysis. Accordingly, the global scientific community of public law should be considered in analyzing international oversight of science for two reasons. First, this branch of knowledge provides a methodological opportunity to manage a wide range of organizational and regulatory levels that have emerged from the idea of a multilevel scientific community, allowing the state to be integrated into a

broader range of scientific associations. Second, the scientific community of public law can serve as a common theory for analyzing public rights and legal systems (Hedayat & Mashhadi, 2010).

5. International Students

The impact of globalization on legal education cannot be denied. The starting point of such analysis is the students themselves. Globalization leads to an increasing diversity of students' personal and cultural backgrounds. A certain percentage of students now study law abroad. However, even if students study in their own country, it is possible that their family, friends, or social environment include international or intercultural experiences. International legal programs that fall within the category of comparative constitutional studies are also noteworthy in this regard. The diversification of legal education begins with the diversity of students.

6. International Instructors

The diversity of students is complemented by the increasing diversity of instructors active in the field of constitutional law. The personal and cultural backgrounds of instructors lead to different approaches to legal education. The cultural and personal backgrounds of instructors are of fundamental importance. Teaching constitutional law and attaining expertise require international education, international research abroad, and international publications (books and articles). Even in constitutional law research, the internationalization of research has become more significant, and this has—at least to some extent and in some countries—led to the acceptance of foreign scholars as constitutional law instructors. The change in the language of instruction, especially the offering of more courses in English, supports such dynamics (Chalmers, 2019).

6.1. Globalization of Legal Education

Ultimately—and most importantly—the content of constitutional law itself is becoming increasingly international in various respects. On the one hand, national case law is creating more international linkages as a result of globalization; on the other hand, customary international law and the jurisprudence of international courts are being invoked more and more in domestic

cases. National constitutions inevitably have to cover international and transnational issues, and in this process, influence from the constitutional experiences of other countries is unavoidable. Building legal and international linkages in constitutional law presupposes exposure to foreign constitutional education and, likewise, careful attention to the debates surrounding the constitutionalization of international law. The concept of the constitution and its ties to notions such as state and nation are changing, and the assumptions of constitutional law and its political theory are also undergoing transformation. Legal education must respond to these challenges and prepare students for the legal developments that are taking shape in practice. It is obvious that the effects of globalization on legal education are diverse. Constitutional law may once have appeared to be the final bulwark immune from global transformations, but the developments of the last twenty-five years and the various modes of legal globalization have influenced—and will continue to influence—constitutional law. It can therefore be concluded that students and instructors of constitutional law, as well as the substantive content of constitutions, are becoming increasingly internationalized, and even the very concept of the constitution must be reconsidered in light of current transformations. (Heidegger, 2018)

6.2. Development of Public Law through Scientific Associations at the United Nations University

The United Nations, adopting the idea of academic research and teaching, established a university within the UN system. While its headquarters are in Tokyo, its core emphasis is on decentralization, and it works with scholarly institutions worldwide. The legal basis of this organization is a charter comprising a General Assembly resolution; although such resolutions are only legally binding under limited, specific circumstances, there is no doubt as to the legal validity of the United Nations University. The activities of this university focus on research, and it also runs an e-learning program. (Rahmati Far, 2020)

6.3. Networks of Research Institutions Other than Universities

Universities are not the only research institutions at the national level. In many countries, independent research

institutes and their affiliates account for a substantial share of total research output. Such institutions can, and indeed do, establish transnational relationships. Here we are faced with a network of structures resembling a network of universities that can be categorized under “national-level cooperation.”

Across countries, the diversity of research arrangements is striking. At times, national academies are of first-order importance and do not merely play a supportive role but conduct research themselves—for example, the national academies of sciences in the United States or France. In other countries, independent institutions support scientific research through funding, project support, and scholarships; examples include the Royal Society in the United Kingdom or the German Research Foundation. (de Wet, 2012)

6.4. *The International Council for Science*

The origins of this organization as a research body and research funder date back to 1931. Initially, the International Unions of Scientific Councils was founded as a successor to the International Association of Academies (IAA; 1899–1914), followed by the International Research Council (IRC; 1919–1931). In 1998 it adopted the name the International Council for Science while retaining the acronym ICSU. As a nongovernmental charitable organization, the International Council for Science occupies a pivotal position in the network of international research institutions. (Ahmadinejad, 2014)

Today, the organization consists of 121 national scientific institutions, known as members of the national scientific community. As far as national-level institutions are concerned, the International Council for Science accepts any organizational scheme.

“8. A national scientific member shall be a science academy, a science council, a scientific institution, or an association of such character. Institutions that effectively provide a range of scientific activities within a defined field may be admitted as national scientific members, provided they can be categorized in a way that prevents any misunderstanding regarding the scope of their activities (i.e., they have a clearly defined domain) and have at least four years of standing in that domain.

9. Scientists from several countries may establish a scientific entity (academy, research council, etc.) and then apply for membership.”

In addition, 30 international scientific unions are members of the International Council for Science.

“7. Scientific unions joining this organization must be international nongovernmental organizations that promote science in a specific field of knowledge and have been established for at least six years.”

Such nongovernmental organizations, which operate to advance knowledge within specific fields and have generally done so over long periods by facilitating the exchange of researchers, scientists, and practical ideas, can each be examined separately; their credibility does not rest solely on membership in the International Council for Science. A large number of such organizations and scientific unions belong to this council. (Molki, 2017) The International Council for Science supports international and interdisciplinary research activities (the combination of two or more scientific fields). Its most significant area of activity is the earth sciences, including the oceans, climate change, environmental challenges, and polar issues. Officially, its activities can be categorized as follows:

- Strategic Planning: The International Council for Science undertakes strategic-planning projects to advance its global approaches in research policy and scientific activity.
- Capacity Building: The organization makes substantial efforts to develop suitable scientific infrastructure, including adequate facilities and favorable working conditions. To this end, it offers fellowship and research-grant programs. Scientific exchange is also facilitated through Visiting Scientists programs (in cooperation with the Third World Academy of Sciences, UNESCO, and the Institute of Advanced Studies of the United Nations University). Specific information was initially provided by the Council’s Committee on Capacity Building in Science (CCBS, 1993–2006), and the subsequent phase has been pursued by the Inter-Academy Panel (IAP). Scientific education is a major and essential activity of the International Council for Science.
- Information and Data: The primary aim is to secure access to information and data across different scientific disciplines in countries around the world. The relevant issues have now coalesced around economic questions, access,

and the security of scientific data. A special body, the Committee on Strategic Cooperation for Information and Data, has been established to address these matters exclusively. The International Council for Science has actively participated in the World Summit on the Information Society. Intellectual property concerns play a very important role in this area, and the number of subsidiary bodies and partnership structures in information and data is considerable.

- **Environment and Sustainable Development:** Since the World Summit in Johannesburg in 2002, the International Council for Science has conducted research—under its own management—on environmental issues.
- **Grants and Fellowships:** Finally, the International Council for Science provides financial support for research activities around the globe. (Lachmayer et al., 2014)

A recurring issue for international organizations is limited budgets, and in our case the budget is very limited—around €3.5 million—while the overall cost of the International Council for Science’s programs cannot easily be estimated. Moreover, the organization is deeply committed to the idea of the universality of science, described as follows:

“This principle entails freedom of movement, association, and expression of scientific results and communications for scientists, alongside equal opportunities for access to data, information, and research materials. To achieve the rights and responsibilities of scientists, the International Council for Science actively upholds this principle and, in doing so, opposes any discrimination based on ethics, religion, nationality, language, politics, gender, or age. The International Council for Science will address any actions, statements, or measures—deliberate or inadvertent—that hinder the implementation of this principle.” (Heywood, 2018)

Although this body initially emerged as a nongovernmental organization, its structure resembles that of typical international organizations. It is overseen by a General Assembly, which is responsible for major decisions. Its Executive Board consists of six officers (the President and other officers) and eight ordinary members tasked with implementing the policies of the

International Council for Science. The work of these organs is supported, on the one hand, by various committees and joint bodies and, on the other, by a Secretariat (in Paris) and four regional offices. (Zarei, 2002)

6.5. *The International Science Council*

It should be noted that the International Council for Science is not the only organization tasked with managing international cooperation among national science academies. This role is also undertaken by the InterAcademy Partnership (IAP), established in 1993 to address international issues, and the InterAcademy Council (IAC), founded in 2000 under Netherlands law. The IAP and IAC publish statements on scientific research matters in general and on all issues of significance to humankind (Saunders, 2006).

6.6. *Other Nongovernmental Actors*

Pugwash is a small village in the northeast of Canada with barely 800 residents. It has become renowned for hosting the Pugwash Conferences on Science and World Affairs since 1957. These conferences are held in opposition to the development and proliferation of weapons of mass destruction and nuclear weapons, following the Russell–Einstein Manifesto of 1955. A portion of this manifesto states:

“In the tragic situation confronting humanity, we feel that scientists should attend this conference to assess the dangers arising from the development of weapons of mass destruction, and to consider drafting a resolution against these threats...”

A representative of this intellectual movement, Joseph Rotblat, was awarded the Nobel Peace Prize in 1995. These conferences are primarily organized by international nongovernmental organizations focusing on ethical issues in the natural sciences—a mission initiated by the founders of this organization, many of whom had themselves participated in the creation of nuclear weapons.

Other nongovernmental organizations, depending on their founding missions, may engage in scientific activities that might not initially appear scientific and may pursue other objectives. For instance, the World Wide Fund for Nature has issued statements opposing certain scientific research activities that could harm

particular animal species, such as its statement against whaling for scientific purposes (Saunders, 2006).

7. Complexity of Organizational Structures in International Scientific Governance

To summarize the key organizational features of international scientific governance, it is not easy to produce a systematic or even coherent picture. The sheer number of such organizations globally is self-evident, and they are equally numerous at the national level, as advancing scientific endeavors has always been a central concern.

What complicates the matter at first glance is that states are not the only actors involved. As a result, governance at the global level is too complex to be designed in a straightforward manner. The most important issue at stake is the interplay and multiplicity of different organizational categories. States, domestic organizations, and transnational entities cooperate with one another and with nongovernmental organizations. Entities established through legal instruments and frameworks interact with informal voluntary associations whose legality may be uncertain.

What must finally be added is that all these considerations become significant when drafting rules and laws for international governance—something that has not yet been accomplished (Petersen, 2011).

8. Governance Mechanisms for Developing Public Law Scientific Associations

8.1. Legislation, Implementation, and Administration

From the perspective of Public International Law, the creation of international laws is one of the more debated and intriguing issues discussed—though still only theoretically—within the realm of global governance. The specific limitations of Article 38(1) of the International Court of Justice Statute, issues of legal bindingness, and the distinction between legal and social norms are just some of the key terms that reflect the unresolved theoretical contradictions in this area.

In reviewing the multitude of organizational actors, some of the few clearly identifiable categories in international legal theory are networks of sub-state institutions and international nongovernmental organizations. These have been the subject of research by international law scholars and, although their legal

status in international law is not precisely defined, their existence as identifiable categories is undisputed.

Paradoxically, uncertainty about law and lawmaking is even greater in certain domains referred to as “soft law” and “self-regulation” (Arthurs, 2009).

Moreover, within the framework of Global Administrative Law, analyzing how laws are created is not sufficient; it must be complemented by identifying the instruments of implementation and administration. This also applies to global governance, which focuses more on regulatory structures (including implementation and administration) than on individual organizations or laws.

However, from a theoretical perspective, the relationship between lawmaking procedures and their outcomes and the effective administrative or managerial mechanisms remains unclear. Laws may not in themselves create lasting regimes, and administrative schemes may function without laws or even instead of laws, potentially resulting in legal complications.

Even without invoking the universal principle of separation of powers—an obligation beyond the scope of this discussion—it is evident that legislation, implementation, and administration, as well as all their internal relations, must meet the fundamental legal requirements grounded in the domain of science and the concept of academic freedom (Thornhill, 2011).

It should be noted that our current analysis does not ignore these theoretical aspects. Rather, it is structured to provide solutions to these problems in order to enable their use in analyzing and advancing good governance of science.

To focus on governance mechanisms, theoretical questions were not discussed initially. Instead, this analysis began with an empirically structural view of the laws of good scientific governance and its administrative and managerial frameworks.

This view reflects a set of rules we have compiled over a long period through our interdisciplinary project. To maintain our perspective amid the vast corpus of literature reviewed, we deemed it necessary to begin with a classification not tied to legal quality, legal categories, or specific legal consequences; the only relevant aspect of this classification is its subject matter—science.

Accordingly, three related categories can be identified that underscore the necessity of legislating,

implementing, and managing the broad domain of science. The relationship between the first and second categories is especially strong, as both involve ethical norms. The first category concerns the propriety of conducting scientific activities (recall the case of Hwang Woo-suk and his fabricated results), while the second pertains to other rights and values affected by scientific activities (such as using unlawful methods to achieve research results). The third category addresses ethical concerns as well, but is generally connected to issues of supporting research and the legal status of researchers (Bakken, 2004).

9. Goals of Governance in Global Scientific Associations

9.1. *Ethical Standards for Research and Its Implementation*

I: Proper Scientific Practice

Starting from the classical standpoint of managing science, there is a consensus among all scholars. They unanimously emphasize the necessity of a set of ethical rules applicable to all scientific research. Such rules are essential to ensure the correctness of scientific procedures. Freedom always requires rules that prevent its abuse. Ultimately, scientific freedom becomes compromised if it leads to misconduct, falsification, or plagiarism.

Accordingly, all documents concerning scientists' activities contain provisions related to:

1. the accurate collection of data through proper methods,
2. conducting scientific activities properly and lawfully, and
3. ensuring the authenticity of published materials.

In the first stage, the accuracy of data and their collection methods must be verified and reviewed over a specified period. The second stage must be carried out with the same precision and clarity, involving the execution of the intended research procedure. In the third stage, the results are explained, with accurate citations of similar results and the theories and opinions of other scholars. There must be no trace of plagiarism, and all participants and referenced works must be cited appropriately. In some cases, adherence to these principles is mandatory for publishing results (de Wet, 2012).

Another issue that often provokes debate is conflict of interest. Scientists do not only conduct research in universities or other independent institutions; they may also work in national or multinational corporations whose interests could influence research procedures and outcomes. The legal rules here are not fixed. At times, specific procedures are established to address conflicts of interest. In some cases, disclosure of conflicts of interest is required; in others, a special committee is formed to resolve the matter. There are even legal provisions stipulating that a scientist—or group of scientists—must withdraw from certain projects, or that an entire project must be terminated (Ansari, 2007).

With respect to such rules, it should be noted that protective measures have been designed to uphold ethical standards, and there are corresponding procedures for their enforcement. Formal procedures that result in punishing a scientist who has violated these principles are very rare and are reserved for only the most serious cases.

Ultimately, ordinary criminal law can always be invoked to address fraud or theft. However, what is more common is the withdrawal of funding, which may come from national or other sources. In this regard, it is crucial that organizations responsible for imposing such sanctions—or even merely providing ethical guidance—do not themselves deviate from proper procedures or negatively influence research outcomes. Consequently, nongovernmental organizations are generally created as actors to implement self-regulatory policies and are granted power and authority for this purpose (Ahmadinejad et al., 2018).

10. Conclusion

The concept of a global scientific community can serve as a research-oriented tool for strengthening the content of public law and scientific associations at both domestic and even international levels. Instead of adopting a rigid and definitive approach that strictly distinguishes between the ideas of global law and transnational law, this concept proposes a comprehensive framework in which all these notions are encompassed. As with all integrative approaches, there is always a risk of merging diverse perspectives into a single framework, such that the resulting synthesis may be methodologically unsound and cause audiences to perceive a unified whole without recognizing the critical distinctions between the

combined concepts. Nevertheless, this risk can be mitigated.

The global scientific community can combine concepts that have previously existed under frameworks such as global administrative law, international constitutional law, and transnational law—each of which holds both descriptive and methodological value. It can also develop around a constitutional foundation, expanding on the notion of good governance and the practical realities of oversight and regulation, while simultaneously remaining subject to scrutiny and analysis.

By adopting this analytical concept of the global scientific community of public law, it becomes possible to examine the body of public law knowledge from a global perspective. Furthermore, the specific principles, laws, and legal institutions that operate within the domain of public law can influence the design of such a global scientific community. General legal principles cannot be artificially created, but they can be extracted and developed from specific cases. This reciprocal relationship between the general and the specific has long been used in the findings and research of domestic public law scientific associations. In any case, the impact of a global scientific community of public law on the development and transformation of this field cannot be overlooked.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

- Ahmadinejad, B. (2014). *Modernity and Critical Thought*. Markaz Publishing.
- Ahmadinejad, S. M. S., Shahi, M. S., & Shamii, M. (2018). Challenges of Deviating from the Strategic Criminal Principles Stated in the Constitution. *Journal of Private and Criminal Law Research*(37).
- Ansari, B. (2007). Sanitizing Laws and Regulations: A Measure for Combating Legal Ambiguity. *Legal Information Journal*, 6.
- Arthurs, H. W. (2009). Law and Learning in an Era of Globalization. *German Law Journal*, 10, 629-640. <https://doi.org/10.1017/S2071832200001279>
- Baer, S. (2004). Verfassungsvergleichung und reflexive Methode: Interkulturelle und intersubjektive Kompetenz. *Heidelberg Journal of International Law*, 64, 735-758.
- Bakken, L. (2004). AALS Panel - Global Legal Education - Can American Law Schools Respond to the Opportunities? *German Law Journal*, 5, 335-338. <https://doi.org/10.1017/S20718322000012475>
- Chalmers, A. (2019). *What is Science?* Samt.
- de Wet, E. (2012). The Constitutionalization of Public International Law. In M. Rosenfeld & A. Sajo (Eds.), *The Oxford Handbook of Comparative Constitutional Law* (pp. 1209-1230). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199578610.013.0060>
- Ghazi Noori, S. S. (2018). Extracting Paths for Reforming Iran's National Innovation System Based on a Comparative Study of Selected Countries. *Quarterly Journal of Science and Technology Policy*.
- Hall, H., & Lewis, W. (2017). *History and Philosophy of Science* (3rd ed.). Soroush Publishing.
- Hedayat, M., & Mashhadi, A. (2010). *Principles of Administrative Law in the Light of the Opinions of the Administrative Justice Court* (1st ed.). Khorasandi.
- Heidegger, M. (2018). *Philosophy of Technology*. Markaz Publishing.
- Heywood, A. (2018). *Key Concepts in Political Science* (1st ed.). Scientific and Cultural Publishing.
- Lachmayer, K., Busch, J., Kelleher, J., & Turcanu, G. (2014). *International Constitutional Law in Legal Education. Proceedings of the Erasmus Intensive Programme NICLAS 2007-2012*. <https://doi.org/10.5771/9783748930662>
- Molki, M. (2017). *Science and the Sociology of Knowledge*. Nashre Ney.
- Nabi Rahni, D. (2013). Opportunities and Scientific Competitions of Developing Countries in the Twenty-First Century. *Rahyafteh*, 29.
- No Behhar, R. (2018). *Criminal Law Protection for Public and Private Spheres* (1st ed.). Jungle Publishing; Javadaneh.

- Petersen, N. (2011). Lawmaking by the International Court of Justice - Factors of Success. *German Law Journal*, 12, 1295-1316. <https://doi.org/10.1017/S2071832200017314>
- Rahmati Far, S. (2020). How is the World Governed? (Analysis of the Nature of Global Administrative Law). *Journal of Policy, Faculty of Law and Political Science*(50), 3.
- Saunders, C. (2006). The Use and Misuse of Comparative Constitutional Law. *Indiana Journal of Global Legal Studies*, 13, 37-76. <https://doi.org/10.1353/gls.2006.0003>
- Thornhill, C. (2011). *A Sociology of Constitutions. Constitutions and State Legitimacy in Historical-Sociological Perspective*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511895067>
- Zarei, M. H. (2002). From Human Rights and Dignity to the Proposal for Respecting the Supreme Administrative Council. *Journal of Management and Development of Institute for Higher Education and Research in Management and Planning*(56 and 57).
- Zarei, M. H. (2007). An Introduction to the Comparative Study of the Institution of Sanitizing Laws and Regulations. *Legal Information Journal*, 6.