CONTINUITIES AND RUPTURES IN BRAZILIAN FOREIGN POLICY IN SCIENCE AND TECHNOLOGY COOPERATION WITH THE BRICS (2008-2022)

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Abstract

This research analyzes the impact of ideological divergence on Brazilian Foreign Policy (BFP) from 2008 to 2022, within the scope of science, technology, and innovation (ST&I) cooperation with the BRICS. Methodologically, the research is characterized as an exploratory qualitative study, based on documentary analysis and a literature review. The theoretical framework is anchored in the post-colonial approach, used as a critical lens to interpret power asymmetries and the search for autonomy in the international system. The BFP, as shaped by different governments (Luiz Inácio Lula da Silva, Dilma Rousseff, Michel Temer, and Jair Bolsonaro), alternated between institutional and ideological continuities and ruptures. Although ST&I cooperation was a central axis of the BRICS, Brazil's engagement fluctuated drastically. During the Lula and Dilma administrations, participation was active and proactive, seeking autonomy and leadership. During the Temer and Bolsonaro administrations, however, more pragmatic postures that were ideologically aligned with the US were adopted, weakening the country's leading role and the deepening of its ST&I agenda within the group. The study concludes that the ruptures in the foreign policies of Brazilian governments negatively impacted science and technology cooperation with the BRICS.

Keywords: Brazilian foreign policy. BRICS. Science and technology cooperation. Ideological divergence. Technological innovation.

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CONTINUIDADES E RUPTURAS NA POLÍTICA EXTERNA BRASILEIRA NO ÂMBITO DAS RELAÇÕES DE COOPERAÇÃO EM CIÊNCIA E TECNOLOGIA COM OS BRICS (2008-2022)

Resumo

Esta pesquisa analisa o impacto da divergência ideológica na política externa brasileira (PEB) no período de 2008 a 2022, no âmbito da cooperação em ciência, tecnologia e inovação (CT&I) com os BRICS. Metodologicamente, a pesquisa caracteriza-se como um estudo qualitativo de cunho exploratório, fundamentado na análise documental e revisão bibliográfica. O referencial teórico ancora-se na abordagem pós-colonial, utilizada como lente crítica para interpretar as assimetrias de poder e as buscas por autonomia no sistema internacional. A PEB moldada por diferentes governos (Lula, Dilma, Temer e Bolsonaro) alternou entre continuidades e rupturas institucionais e ideológicas. Embora a cooperação em CT&I fosse um eixo central do BRICS, o engajamento do Brasil oscilou drasticamente. Nos governos Lula e Dilma, a participação foi ativa e propositiva, buscando autonomia e liderança. Já nos governos Temer e Bolsonaro, adotaram-se posturas mais pragmáticas e ideologicamente alinhadas aos EUA, enfraquecendo o protagonismo e aprofundamento da agenda de CT&I do país no grupo. O estudo conclui que as rupturas na política externa dos governos brasileiros impactaram negativamente a cooperação em ciência e tecnologia com o BRICS.

Palavras-chave: Política Externa Brasileira. BRICS. Cooperação em ciência e tecnologia. Divergência ideológica. Inovação tecnológica.

CONTINUIDADES Y RUPTURAS EN LA POLÍTICA EXTERIOR BRASILEÑA EN EL ÁMBITO DE LAS RELACIONES DE COOPERACIÓN EN CIENCIA Y TECNOLOGÍA CON LOS BRICS (2008-2022)

Resumen

Esta investigación analiza el impacto de la divergencia ideológica en la política exterior brasileña (PEB) durante el periodo comprendido entre 2008 y 2022, en el ámbito de la cooperación en ciencia, tecnología e innovación (CT&I) con los países del BRICS. Desde el punto de vista metodológico, la investigación se caracteriza por ser un estudio cualitativo de carácter exploratorio, basado en el análisis documental y la revisión bibliográfica. El marco teórico se basa en el enfoque poscolonial, utilizado como lente crítica para interpretar las asimetrías de poder y las búsquedas de autonomía en el sistema internacional. La PEB, moldeada por diferentes gobiernos (Lula, Dilma, Temer y Bolsonaro), ha oscilado entre continuidades y rupturas institucionales e ideológicas. Aunque la cooperación en CT&I era un eje central del BRICS, el compromiso de Brasil ha fluctuado drásticamente. En los gobiernos de Lula y Dilma, la participación fue activa y proactiva, en busca de autonomía y liderazgo. En cambio, en los gobiernos de Temer y Bolsonaro se adoptaron posturas más pragmáticas e ideológicamente alineadas con EE. UU., lo que debilitó el protagonismo y la profundización de la agenda de ciencia, tecnología e innovación del país en el grupo. El estudio concluye que las rupturas en la política exterior de los gobiernos brasileños tuvieron un impacto negativo en la cooperación en ciencia y tecnología con el BRICS.

Palabras clave: Política exterior brasileña. BRICS. Cooperación en ciencia y tecnología. Divergencia ideológica. Innovación tecnológica.

Introduction

In a 2001 study, the idea of the acronym BRICS—a group initially formed by Brazil, Russia, India, China, and South Africa—emerged with Jim O'Neill, chief economist at the multinational Goldman Sachs. Since then, much has been said about the largest economies of the Global South uniting in a multilateral formation that challenges the colonial order, within the context of a new globalized world following the end of the Cold War. This grouping of emerging powers would represent not only a new global economic configuration but also a space for debate on political autonomy, South-South cooperation, and alternatives to traditional multilateralism led by Western actors (da Silva 2013; do Nascimento 2018).

Since the conception of this multilateral formation at the Yekaterinburg summit (2009), the BRICS has been structurally integrated into Brazilian foreign policy (BFP), becoming one of its fundamental axes (Silva 2022). Initially, it was a milestone of a New Independent Foreign Policy, which aimed precisely at achieving autonomy through diversification (do Nascimento 2018), intensified by the processes of interdependence generated by the existence of the BRICS. With more than 15 years since its formation, the BRICS has spanned several Brazilian governments and, amidst internal turbulence and foreign policy reorientations, continues toward expansion and reaches important levels of institutionalization and materialization of its objectives, such as the establishment of the New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA) (Duval 2011).

In a context of modernity permeated by the technical-scientific-informational milieu, the BRICS appears as a central formation for the development of new technologies and as a strategic partner for Brazil in the field of science, technology, and innovation (ST&I). This dimension was already highlighted in the 2007 Science, Technology, and Innovation Action Plan, which pointed to ST&I as "fundamental instruments for development, economic growth, job and income generation, and the democratization of opportunities." The creation of the BRICS Research and Innovation Initiative in July 2015 reinforces this priority, marking concrete efforts toward academic integration, joint research, and innovation among member countries.

BFP literature indicates that, despite internal challenges and changes in government, the country has sought a position of international prominence, articulating integration strategies that combine economic pragmatism and geopolitical ambitions (Cervo and Lessa 2014, Silva and Holleben 2022).

At the same time, authors emphasize the need to understand these actions within the context of global relations marked by historical inequalities, Eurocentrism, and power hierarchies (Santos 2008, Said 2007, Spivak 2010, Elíbio and Almeida 2013).

Given this panorama, the present work proposes to analyze Brazil's insertion into the BRICS between 2008 and 2022, considering continuities and ruptures across different governments and their strategic impacts, with an emphasis on ST&I cooperation.

Brazil in the BRICS: Overview and International Insertion

Brazil joined the BRICS in 2008, seeking to expand its international presence and strengthen cooperation with emerging countries, especially in the economic and scientific-technological spheres (da Silva 2013, Leite 2011). The grouping emerged with a focus on Western institutions, such as the IMF and the World Bank (WB), allowing BRICS members greater autonomy in defining multilateral agendas and in negotiating financial and development instruments (Lima 2005, Visentini and Silva 2010).

During its participation, Brazil sought to consolidate its image as an intermediate regional power, reconciling economic pragmatism with the promotion of South-South cooperation values and the reform of international institutions (Cervo and Lessa 2014, Ziebell de Oliveira and Mallmann 2020). Initiatives such as the NDB and the CRA exemplify the attempt to create independent mechanisms for financing and development support, reducing reliance on traditional organizations (Duval and Andreis 2021).

Brazil's role in the BRICS was also manifested in the promotion of scientific and technological cooperation, highlighted by the implementation of young scientist forums and joint projects in innovation, artificial intelligence, and applied research (Gehre 2020). These efforts reflect the attempt to reconcile national interests with collective agendas, strengthening South-South multilateralism and expanding the Brazilian leading role on the international stage.

However, the country's performance in the group was not linear, being heavily influenced by internal government changes, political priorities, and ideological divergences. The different approaches adopted by presidents Lula, Dilma, Temer, and Bolsonaro shaped Brazilian participation, generating continuities in strategic themes and ruptures in issues of political alignment and international cooperation (Silva 2022, Hirst and Maciel 2022).

In order to investigate how the ideological divergences of each of the analyzed governments affected Brazilian actions within the BRICS, with special emphasis on science, technology, and innovation (ST&I) cooperation, this analysis is based on a synthesis of official reports and documents from the BRICS Policy Center (Observatório do BRICS) at PUC-Rio, data from official federal government websites (*Gov.br*), and a robust bibliography integrating national (Cervo 2014, Saraiva 2019, Milani 2017, Valença de Melo 2022) and international authors (Acharya 2014, Cox 1981, Hurrell 2009, Stuenkel 2015, Buzan 2010, Kayaoglu 2010). The post-colonial approach serves as a critical lens to understand the challenges and possibilities of Brazil's insertion in the construction of a more balanced international order.

The literature review method was applied through a data triangulation process, where official reports and *communiqués* were subjected to qualitative content analysis. The objective was to identify and categorize patterns of continuity and rupture in ST&I guidelines, allowing the diplomatic discourse to be confronted with data on the effective implementation of cooperation policies.

BFP and the BRICS

Brazilian Foreign Policy is historically marked by the search for autonomy, development, and integration into multilateral forums. According to Cervo and Bueno (2011), BFP transitions between universalist postures and autonomy strategies, reflecting the complexity of the domestic context and the demands of the international order.

Since the end of the Cold War, especially during the Workers' Party (PT) administrations, Brazil began to prioritize the expansion of its partnerships outside the traditional North-South axis, emphasizing South-South cooperation and multilateralism. Integration into the BRICS grouping represents the materialization of this strategy. The BRICS, according to Hurrell (2009) and Stuenkel (2015), constitutes a platform to contest Western hegemony and to propose a reform in global governance, also serving as a space for technology exchange and the strengthening of innovation capacities.

Brazil's integration into the BRICS has consolidated itself as a fundamental axis of Brazilian Foreign Policy (BFP), based on the search for autonomy and the contestation of the Global North's traditional hegemony. In this scenario, cooperation in Science, Technology, and Innovation (ST&I) transcends the technical dimension to become a strategic platform for global governance reform,

allowing emerging countries to exchange technologies and strengthen national capacities. Authors such as Hurrell (2009) and Stuenkel (2015) highlight that the grouping acts as a vital space for middle powers, like Brazil, to articulate alternatives to traditional multilateralism, using scientific development as a vector for political and economic sovereignty.

In the area of ST&I, the BRICS emerge as an arena for technical cooperation, where countries with similar challenges and potentials can develop joint projects and promote knowledge sharing. From this perspective, Acharya (2014) and Buzan & Waever (2011) highlight the importance of regional blocs for the construction of a multipolar international order.

Brazilian participation in the BRICS sought to reconcile the promotion of relative autonomy in the international system with global economic integration, promoting joint development agendas and ST&I cooperation, albeit in a differentiated manner depending on the period analyzed (do Nascimento 2018, Silva and Holleben 2022).

During the Lula administration (2003–2010), Brazil adopted an active and proactive foreign policy within the BRICS, consolidating its presence as a key interlocutor of the group and articulating South-South cooperation in strategic areas. It sought to strengthen multilateral development mechanisms, such as the NDB and the CRA, while leading scientific and technological cooperation initiatives, including joint projects in biotechnology, energy, and information technologies (da Silva 2013, Visentini and Silva 2010). Lula emphasized innovation as a vector for bringing emerging countries closer together, promoting agendas aimed at reducing global asymmetries and strengthening an inclusive multilateralism.

The Dilma Rousseff administration (2011–2016) maintained a line of continuity, albeit in a more cautious and bureaucratized manner. Brazilian Foreign Policy during this period evidenced an attempt to reconcile pragmatism and ideology, prioritizing economic stability and ST&I cooperation within the BRICS, but limiting political protagonism in broader international arenas (Cornetet 2014, Duval and Andreis 2021). The creation of thematic committees and the expansion of scientific exchange programs were clear signs of Brazilian commitment, even in the face of internal crises and external pressures.

The phase of greatest proactive dynamism in the ST&I agenda occurred during the Lula and Dilma administrations, when South-South cooperation was instrumentalized to reduce global technological asymmetries. Documents such as the Fortaleza Declaration (2014) and the Ufa Declaration (2015) were milestones in the institutionalization of this process, establishing the BRICS Research and Innovation Initiative and defining high-technology areas, such

as nanotechnology and biotechnology, as priorities. This strategy aimed not only at academic exchange but also at the creation of financial mechanisms and research networks that would guarantee the members' autonomy *vis-à-vis* Western powers (Visentini and Silva 2010, Duval and Andreis 2021).

The impact of this ST&I agenda lies in the pursuit to overcome technological "path dependence." For Brazil, the BRICS offers access to complementary innovation ecosystems: China's leadership in Artificial Intelligence and India's expertise in IT services. Furthering this discussion reveals that ST&I within the bloc is not merely technical, but strategic for digital and industrial sovereignty. Concrete examples, such as the BRICS remote sensing satellite constellation, demonstrate how cooperation aims to reduce external vulnerability in critical data, positioning members as producers, and not just consumers, of frontier technologies.

From a strategic perspective, the discussion on ST&I within the bloc reveals a constant search to overcome technological "path dependence" through complementary innovation ecosystems, such as India's expertise in IT services and Chinese leadership in Artificial Intelligence. Initiatives like the BRICS remote sensing satellite constellation exemplify the effort to reduce external vulnerability in critical data, positioning the countries in the group as producers of frontier technologies rather than mere consumers. Gehre (2020) points out that this academic and technical integration is fundamental for Brazil to acquire knowledge in critical sectors, strengthening its international projection in the technical-scientific-informational milieu.

The transition to the Temer administration (2016–2018) brought significant ruptures, featuring a more reactive foreign policy focused on pragmatic adjustments. Although the country formally maintained its commitments to the BRICS, there was less emphasis on ST&I as a strategic axis, reflecting a foreign policy centered on administrative efficiency and the containment of public spending (Augusto 2018, Oliveira Moreira 2020). This posture indicated a reduction in Brazil's leading role, maintaining only institutional continuity without deepening technological and scientific integration efforts.

During the Bolsonaro period (2019–2022), both formal continuity and discursive and strategic ruptures were observed. Brazil maintained its presence in BRICS forums and signed joint declarations, but political priority shifted from scientific and technological cooperation agendas to themes of ideological alignment and regional security, restricting Brazilian action in ST&I (Saraiva and Silva 2019, Hirst and Maciel 2022). The COVID-19 pandemic highlighted the need for technological and scientific coordination among members, but

internal divergences within the BRICS and the less engaged posture of the Brazilian government limited significant progress (Toni Jr. 2023).

However, the continuity of this agenda was impacted by deep ideological ruptures and foreign policy reorientations during the Temer and Bolsonaro administrations. During the Temer period, there was a retreat to a more technical and reactive posture, focused on pragmatic adjustments and administrative efficiency (Augusto 2018). Under the Bolsonaro administration, ideological alignment with the Global North and discourses critical of multilateralism depleted the political momentum of ST&I initiatives, transforming Brazilian participation into something formal with minimal substance, which even hindered the necessary coordination during the COVID-19 pandemic (Saraiva and Silva 2019, Toni Jr. 2023).

Despite governmental variations, some structural continuities remain evident: the valuation of South-South cooperation, the promotion of inclusive multilateralism, and the recognition of the BRICS as a strategic space for expanding Brazil's international influence. The ruptures, in turn, reflect changes in domestic priorities and distinct ideological alignments, directly impacting the pace and depth of joint ST&I initiatives (Silva 2022, Maringoni *et al.* 2016).

In summary, historical analysis shows that Brazil's capacity to influence and shape BRICS initiatives depends on domestic alignment, political stability, and a clear strategic vision regarding the role of science and technology in its international projection.

Second Lula Administration (2007–2010)

The Luiz Inácio Lula da Silva administration represented a period of expansion and consolidation of the Brazilian presence in the BRICS. From the beginning of his term, Brazil established a vision of international prominence, strengthening ties with Global South countries and promoting reforms within traditional multilateral institutions (da Silva 2013; Visentini and Silva 2010).

Lula stood out for articulating Brazil as a mediator and regional leader, defending a more balanced international order in which emerging countries could have an active voice in global decisions. This strategy included active participation in the creation of the NDB and the formulation of the CRA, aiming to reduce the country's reliance on institutions such as the IMF and the WB (Duval and Andreis 2021).

In the field of ST&I, the Lula administration promoted cooperation among BRICS countries, establishing young scientist forums and joint projects in strategic areas such as artificial intelligence, renewable energies, and health (Gehre 2020). These initiatives allowed Brazil to acquire technological knowledge and strengthen national capacities in critical sectors.

Brazilian engagement during this period evidenced a balance between ideology and pragmatism. On the one hand, the government sought to assert political autonomy *vis-à-vis* major powers; on the other, it maintained strategic commercial and financial relations, ensuring economic growth and domestic stability (Leite 2011; Ziebell de Oliveira and Mallmann 2020). Authors such as Visentini and Silva (2010) highlight that Brazil, under Lula, sought to consolidate an intermediate position, capable of articulating national and international interests without submitting to hegemonic blocs.

Dilma Rousseff Administration (2011–2016)

The Dilma Rousseff administration represented a period of strategic continuity regarding Brazilian Foreign Policy within the scope of the BRICS, although marked by greater caution and pragmatism in the face of internal and external challenges (Cornetet 2014, Duval and Andreis 2021). The president maintained the emphasis on multilateralism and South-South cooperation, consolidating the instruments created during the Lula administration (NDB and CRA).

The Dilma administration faced structural limits, reflecting both the complexity of relations among emerging countries and the effects of the domestic economic crisis. The institutionalized continuity of the BRICS allowed Brazil to maintain diplomatic prominence, but its capacity to influence the group's strategic decisions proved limited compared to major powers like China and India (Silva and Holleben 2022, da Silva 2013).

Ownership and pragmatism were hallmark characteristics of the foreign policy of the period. The president sought to maintain the country's autonomy without compromising strategic economic interests, maintaining commercial and financial relations with all BRICS members (Duval and Andreis 2021; Silva 2022). At the same time, Brazil's presence at the group's summits continued to reinforce the image of a country capable of mediating and proposing collective solutions to global challenges, especially in the areas of sustainable development, science, and innovation.

Therefore, the Dilma period can be understood as a stage of consolidation of Brazilian integration into the BRICS, focusing on institutional continuity, the expansion of science and technology cooperation, and the maintenance of a pragmatic posture in the face of internal and external complexities. This approach consolidated the institutional and political basis necessary for Brazil's international insertion, despite the domestic economic and political constraints that marked the end of her administration (Cornetet 2014, Duval and Andreis 2021).

Michel Temer Administration (2016–2018)

The Michel Temer administration represented a transition stage in Brazilian Foreign Policy, marked by a combination of institutional continuity and pragmatic adjustments in the face of the domestic and international scenario (Augusto 2018; Oliveira Moreira 2020). In the context of the BRICS, Temer sought to maintain the commitments made by previous administrations, especially regarding the New Development Bank and economic cooperation among the group's countries, although engagement was less proactive and more operational (do Nascimento 2018; Silva 2022).

BFP during his administration focused on economic stability and attracting investments, reflecting a more technocratic orientation. The BRICS summits during this period evidenced the country's continuity in the bloc, but with less political prominence compared to the Lula and Dilma administrations. Temer's actions showed that, in periods of internal instability, Brazil tends to prioritize the preservation of already established international commitments, rather than proposing new strategic initiatives (Hermann 1990).

The foreign policy of the Temer administration also reflected challenges in coordination and coherence, especially regarding the promotion of ST&I cooperation within the BRICS, which advanced in a limited manner due to budgetary constraints and attention directed toward the domestic agenda (Silva and Holleben 2022). In this sense, there was institutional continuity, but with a reduced capacity for Brazil to influence the bloc's strategic direction.

In summary, the Temer period was characterized by a more cautious and pragmatic diplomatic profile, maintaining commitments and avoiding significant ruptures, but without the same leadership capacity or the ability to propose innovative agendas observed in previous administrations. This posture demonstrated that Brazil's insertion into the BRICS depends not

only on formal commitments but also on the country's political and economic leadership capacity (Augusto 2018; Oliveira Moreira 2020).

Jair Bolsonaro Administration (2019–2022)

The Jair Bolsonaro administration marked a period of significant ruptures in Brazilian Foreign Policy, characterized by an ideological alignment with countries of conservative leanings and a distancing from traditional multilateral forums, even though Brazil maintained its formal participation in the BRICS (Saraiva and Silva 2019, Hirst and Maciel 2022). Unlike previous administrations, Brazil's prominence within the bloc decreased, reflecting a more pragmatic and reactive approach, often subordinated to domestic and ideological agendas (Monteagudo 2021; Silva 2022).

During this period, Brazil prioritized a diplomacy based on immediate economic interests and budget cuts, which negatively impacted science, technology, and innovation cooperation initiatives within the scope of the BRICS. Brazilian actions became more technical and operational, with less political prominence in the bloc's strategic decisions (Silva and Holleben 2022).

The Bolsonaro administration highlighted tensions between institutional continuity and ideological ruptures. On the one hand, the country maintained financial and administrative commitments to the NDB and South-South cooperation agendas; on the other, there was a weakening of Brazil's leadership capacity and political influence within the bloc, accompanied by speeches critical of traditional multilateralism (Monteagudo 2021; Toni Jr. 2023).

In the field of science, technology, and innovation cooperation, Brazil faced significant challenges, including a reduction in resources and lower strategic priority for BRICS projects, contrasting with the more consistent efforts of the Lula and Dilma administrations. This posture demonstrated that the country's capacity for international insertion depends on both institutional continuity and active, coherent political leadership.

The Jair Bolsonaro administration reinforced the understanding that internal ideological divergences directly impact Brazil's prominence in the BRICS, reducing the country's influence in defining strategic agendas and limiting advancements in scientific and technological cooperation, even when formal commitments remain. Brazilian Foreign Policy during this period, therefore, presents a combination of operational pragmatism and strategic retreat, reflecting the government's domestic priorities and ideological orientation (Saraiva and Silva 2019; Monteagudo 2021).

Critical Analysis

The critical analysis of Brazilian participation in the BRICS reveals a complex balance between institutional continuities and strategic ruptures, conditioned by both internal and external factors. Historically, Brazil has sought to consolidate its global influence through South-South cooperation, the promotion of inclusive multilateralism, and technological and scientific integration with emerging partners. However, ideological divergences and changes in the political orientation of successive governments significantly impacted the effectiveness of this engagement.

Within the scope of science, technology, and innovation, Brazil demonstrated important advancements during the Lula and Dilma administrations by investing in the creation of thematic committees, scientific exchange programs, and joint initiatives focused on innovation. These actions contributed to strengthening national technological capacity and expanding Brazil's leading role in international forums (da Silva 2013, Duval and Andreis 2021). However, such advancements were limited by insufficient financing, internal bureaucracy, and a reliance on consensus among members with heterogeneous economic and political interests.

The transformation of the international scenario altered the balance of power within the BRICS, especially due to the intensification of the technological rivalry between China and the United States and the Russian geopolitical reorientation. This new global context imposed challenges on the multilateralism that the bloc sought to promote, since cooperation in Science and Technology came to be seen not only as technical but as a tool for strategic competition. According to Duval and Andreis (2021), the bloc, which aimed to reduce reliance on traditional organizations such as the IMF and the World Bank, found itself pressured by these external dynamics, demanding from its members a complex balance between the search for autonomy and new geopolitical realities.

Domestically, political shifts in countries such as India and Brazil brought to the center of the agenda ideological divergences that had previously remained latent in favor of economic growth. The alternation of power to governments with distinct visions regarding international insertion altered the priority given to the group, often privileging alignment with the Global North to the detriment of strengthening South-South cooperation. According to Saraiva and Silva (2019), this discursive and strategic rupture in recent Brazilian administrations resulted in a more reactive and less engaged diplomacy, which

directly affected the pace of joint ST&I initiatives that had been consolidated during periods of greater political convergence.

The divergences manifested themselves more acutely in sensitive issues, such as the role of the State in innovation and openness to technological partnerships outside the bloc, revealing a tension between formal institutional commitments and new domestic interests. The heterogeneity of the BRICS, which in its initial phase was celebrated as an asset for the bloc's plurality, became, in this new context, a restrictive factor for cohesion in strategic areas. For do Nascimento (2018) and Toni Jr. (2023), this political fragmentation prevents official declarations from translating into tangible results, evidencing that the effectiveness of technological cooperation is deeply dependent on political stability and the maintenance of a long-term strategic vision by its national leaders.

The ideological divergence among BRICS countries emerged as a restrictive factor, especially during the Temer and Bolsonaro periods, when Brazilian Foreign Policy began to prioritize administrative pragmatism or specific ideological alignments, to the detriment of technological and scientific cooperation. This posture reveals an intrinsic tension between formal institutional commitments and Brazil's real capacity for strategic action, revealing that the continuity of engagement depends not only on consolidated diplomatic structures but also on political consistency and a national strategic vision (Silva and Holleben 2022; Saraiva and Silva 2019).

Another critical aspect refers to the management of multilateral agendas. Although mechanisms such as the NDB and the CRA strengthen economic cooperation, ST&I integration requires technical coordination, qualified human resources, and long-term planning. The gap between declared intention and concrete implementation demonstrates the need for greater investment in robust public policies that connect strategic interests with tangible results in science and technology (Toni Jr. 2023; Visentini and Silva 2010).

Therefore, Brazil's actions within the BRICS reflect a dialectic between its potential for influence and structural limitations. The country possesses scientific expertise, trained human resources, and relevant diplomatic experience, but it lacks the political consistency and strategic continuity to transform formal commitments into concrete results. ST&I cooperation, although recognized as a priority axis in declarations and action plans, remains vulnerable to changes in government, internal crises, and ideological divergences among members, highlighting the need for resilient foreign policies aligned with a long-term national vision.

In light of this, it is noteworthy that Brazil has achieved significant progress in ST&I and international projection, but its effective prominence in the BRICS depends on the capacity to integrate political vision, strategic resources, and multilateral articulation in a continuous and coherent manner.

In summary, the trajectory of ST&I within the scope of the BRICS demonstrates that the effectiveness of Brazilian international insertion depends on the convergence between domestic political stability and a long-term strategic vision. The gap between the intentions declared in official *communiqués* and the concrete implementation of projects reveals the need for resilient public policies capable of withstanding government oscillations and ensuring continuous investments in human resources and technical infrastructure. For Brazil to regain its leading role, it is essential that science and technology be reaffirmed as central axes of national sovereignty and sustainable development in the Global South (Silva and Holleben 2022, do Nascimento 2018).

Analysis of BRICS Reports, Statements, and Meetings – Areas of Convergence and Joint Actions in ST&I

The analysis of official BRICS documents transcends the mere description of formal commitments, as it reveals how science, technology, and innovation (ST&I) was instrumentalized by different Brazilian administrations as a pillar of their foreign policy. Brazil's actions within the bloc, in this sense, are a direct reflection of its ideological orientations, which determined the priority and depth of its cooperation with the other members. Below, we detail how each government period manifested itself in the bloc's official *communiqués*.

Under the aegis of the Lula administration, Brazilian Foreign Policy for the BRICS was marked by a singular ambition: to consolidate the country as a leader of the Global South and an articulator of a new multipolar order. The ST&I agenda was not seen merely as a technical issue, but as a strategic tool for South-South cooperation and the strengthening of endogenous capacities, seeking to reduce technological reliance on traditional powers. The Sanya Declaration (2011), signed in China, represents a turning point. It was the first to formalize ST&I cooperation within the BRICS through the creation of a Working Group for the sector. Brazil, as one of the main proponents, advocated an approach that prioritized technologies aimed at social development and sustainability, such as energy and food security. This initial commitment, albeit in its embryonic stage, already demonstrated

a vision that sought to go beyond trade, aiming for deeper and more lasting collaboration.

The Dilma administration continued this approach from Lula, but with a greater focus on institutionalization and the creation of formal mechanisms. ST&I cooperation was consolidated through agreements and platforms that ensured the longevity of partnerships, even with a reduced discursive momentum in foreign policy. The Fortaleza Declaration (2014), held on Brazilian soil, was fundamental in solidifying the ST&I agenda. The document, notably more detailed than previous ones, did not limit itself to generic mentions; it enumerated specific areas of high-technology cooperation, such as nanotechnology, biotechnology, and information and communication technology (ICT). It was in this context that the foundations for the BRICS Research and Innovation Platform were laid. The Brazilian vision, at this moment, was to create a financial and institutional mechanism that would guarantee the longevity of projects, regardless of political oscillations. The pinnacle of this institutionalization phase occurred with the formalization of the BRICS Research and Innovation Initiative in the Ufa Declaration (2015). This document represents the main legacy of the ST&I diplomacy of the period, as it proposed not only joint research but also the creation of scientific exchange networks, knowledge sharing, and the development of internal technological capacities, reinforcing the ideal of the countries' autonomy *vis-à-vis* Global North powers.

With the change in government, Brazilian Foreign Policy in the BRICS, under the administration of Michel Temer, took on a more pragmatic approach. The ST&I agenda was not abandoned, but its instrumentalization lost the political and proactive momentum of previous years. Technical cooperation was subordinated to a logic of attracting investments and immediate interest. The Xiamen Declaration (2017), for example, reiterates support for existing initiatives, such as the Research and Innovation Platform, but does not introduce new ambitious agendas or large-scale projects. The Brazilian delegation focused largely on privatization and concession themes, relegating ST&I to a supporting role. The elegance of the document's diplomatic language does not mask the lower-intensity cooperation and the less assertive engagement of Brazil, which, under this new administration, adopted a more reactive than proactive posture within the bloc.

Jair Bolsonaro's rise to power represented the greatest ideological rupture in Brazil's foreign policy during the period. Although economic ties with China and formal participation in the BRICS were maintained, the government's discourse and actions depleted the ST&I agenda, undermining the trust and

credibility necessary for deep cooperation. The Brasília Declaration (2019) is a notable case of dissonance: as the host country, Brazil signed a text that, in essence, reaffirmed commitments to multilateralism and cooperation in themes such as health and science. However, public statements by the then-president and the foreign minister contradicted the official rhetoric, fostering friction with China. The declaration, therefore, does not reflect the foreign policy practiced; it is an example of how Brazil was forced to maintain a diplomatic formality that its leadership publicly rejected. The Moscow Declaration (2020), signed amidst the pandemic, emphasizes public health cooperation and the creation of a BRICS Vaccine Research Network, but the Brazilian government's posture at the time was one of distrust regarding partnerships with China, politicizing the issue of the Chinese vaccine. The anti-China rhetoric, contrary to the bloc's spirit of cooperation, weakened Brazil's capacity to integrate into global research networks. Finally, in the Beijing Declaration (2022), even with Brazil signing the document, the government's level of engagement in cooperation proposals, such as in artificial intelligence and digital technology, was limited. The priority was no longer strengthening the bloc as a whole, but rather the pursuit of geopolitical alignment with the United States, which resulted in formal participation with minimal substance.

This analysis, in short, reveals that ST&I, more than a technical agenda, served as a thermometer for Brazilian Foreign Policy. Ideological divergence, far from being a mere detail, directly impacted Brazil's momentum, credibility, and prominence on the international stage. While progressive administrations used technological cooperation to build bridges and strengthen the country's autonomy, subsequent administrations, with their pragmatic or ideologically aligned postures, limited the deepening of relations in strategic areas for national development. The study thus demonstrates that Brazil's effectiveness within the BRICS is intrinsically linked to the consistency of its policies and the alignment of its leaders with the bloc's multilateral agenda.

Final Considerations

An analysis of Brazilian Foreign Policy within the BRICS between 2003 and 2022 highlights the complexity of its international insertion, marked by alternations between strategic prominence and operational retreat. During the Lula and Dilma administrations, Brazil sought to consolidate an assertive presence, promoting South-South cooperation, financial and technological integration, and defending a more inclusive and multipolar global governance

(Visentini and Silva 2010; Duval and Andreis 2021; da Silva 2013). This phase represented a consistent effort to build an active international identity, based on strategic autonomy and leadership capacity within the bloc.

During the Temer and Bolsonaro administrations, a decrease in Brazilian prominence was observed, with foreign policy being influenced by domestic ideological agendas and institutional limitations (Augusto 2018; Oliveira Moreira 2020; Saraiva and Silva 2019). Although the formal continuity of BRICS policies was maintained, the capacity to shape strategic agendas and lead science, technology, and innovation cooperation initiatives suffered significant restrictions (Monteagudo 2021; Hirst and Maciel 2022; Toni Jr., 2023).

The analyzed trajectory shows that Brazilian insertion into the BRICS is conditioned by three central dimensions: political leadership, institutional consistency, and ideological alignment. The absence or fragility of any of these aspects compromises the capacity to influence strategic decisions and to consolidate scientific and technological cooperation. Additionally, it becomes evident that Brazilian Foreign Policy reflects the interaction between domestic priorities and international objectives, with internal coherence being a prerequisite for effective international action (Cervo and Lessa 2014; Leite 2011; Silva and Holleben 2022).

Finally, the results of the analysis suggest that for Brazil to maintain and expand its relevance in the BRICS, it will be necessary to combine political and institutional stability with a long-term strategic vision. The consolidation of consistent leadership, associated with the strengthening of scientific, technological, and economic cooperation mechanisms, will be essential for the country to effectively contribute to redefining the international order toward a more multipolar and inclusive model, aligned with the demands of the Global South and the promotion of a sustainable and innovative development agenda (Gehre 2020, do Nascimento 2018).

The 2003-2022 period shows that Brazilian prominence within the BRICS is possible, but it depends on domestic political articulation, institutional continuity, and the capacity to act strategically, balancing domestic and international interests to consolidate the country's position as a relevant actor in global governance.

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