A Role and Reference Grammar Analysis of Chinese and American Central Bank Policy Discourses

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Abstract
Central bank communication shapes market expectations and constructs institutional authority, yet the linguistic choices underlying cross-cultural differences in policy discourse remain largely unexamined. This study employs Role and Reference Grammar (RRG) as the theoretical framework to conduct a systematic three-dimensional comparative analysis of syntactic types, semantic roles, and pragmatic focus in 10 official addresses each by the People's Bank of China (the PBC) governors (2016–2025) and the Federal Reserve (the Fed) chairs (2016–2025). The authors find that at the syntactic level, the Fed discourses exhibit a significantly higher proportion of copular clauses than the PBC discourses (27.7% vs. 2.5%), while the PBC discourses show a much higher proportion of transitive clauses than the Fed discourses (81.4% vs. 43.3%). Passive voice is used nearly twice as frequently in the PBC discourses as in the Fed discourses (9.8% vs. 5.0%). Semantically, the Fed predominantly employs first-person plural We and The FOMC as Actors, with Undergoers being specific economic variables (inflation, policy rate); the PBC predominantly employs The People's Bank of China as the Actor, frequently uses implicit Actors, and tends to assign abstract policy goals as Undergoers. At the pragmatic level, the Fed uses explicit copular clauses to construct judgmental assertions, reflecting a data-driven rational authority; the PBC uses zero-copula topic-comment structures, implicit Actors, and passive constructions to background policy actions and direct audience attention to the policies themselves, reflecting the discursive logic of collective governance. This study not only validates the applicability of RRG to cross-cultural analysis of institutional discourses, particularly its explanatory power for pragmatic focus structures, but also provides empirical linguistic evidence for central banks seeking to optimize their cross-cultural communication strategies.

Keywords: Role and Reference Grammar (RRG); the PBC; the Fed; syntactic types; semantic roles; pragmatic focus

1.Introduction

In the global economic landscape, central banks play a pivotal role in formulating and implementing monetary policies. The communication of these policies through official speeches is crucial as it influences market expectations, investor behavior, and overall economic stability. Different political and cultural contexts shape the way central banks convey their messages, yet existing research has largely focused on the content and effects of central bank communication, with limited attention to how linguistic structures encode agency, responsibility, and institutional identity.

Research on central bank communication has predominantly focused on its economic consequences, particularly market reactions and the stabilization of public expectations. Wan and Zeng (2013) argue that such communication bridges the information gap between monetary authorities and the public, guiding expectations toward better policy outcomes. Blinder et al. (2008) provide a comprehensive survey of the theory and evidence on how central bank communication influences monetary policy effectiveness. Beyond macroeconomic effects, scholars have examined linguistic features of central bank statements, including content, tone, and clarity. Lyu et al. (2024) analyze central bank communication vocabulary, revealing a trade-off between simplicity and professionalism: more professional terms may precisely depict economic fundamentals but raise public information-processing costs, potentially hindering the formation of common knowledge and widening public disagreement. Their empirical work, using manually constructed monetary policy lexicons and high-frequency data from Weibo and stock prices, confirms a U-shaped relationship between communication professionalism and public action divergence.

Some studies have explored cross-country differences in central bank communication styles, yet most have not systematically examined the underlying syntactic, semantic, and pragmatic structures that may vary across cultures and political systems. The speeches of the U.S. Federal Reserve (the Fed) chairs and the People's Bank of China (the PBC) governors (as presented in annual reports) provide rich material for such an investigation. He et al. (2022) offer contextual background on China's financial development, noting that ongoing reforms and financial opening-up may affect the PBC's communication practices. Nevertheless, existing research has rarely addressed questions such as how transitive versus copular constructions encode agency, how active versus passive voice allocates responsibility, or how topic-comment structures and focus types reflect institutional identity. This study takes up these underexplored aspects by applying RRG to compare the monetary policy discourses of the Fed and the PBC, thereby extending central bank communication research into the linguistic domain.

The differences between the political systems of the United States and China are significant. The U.S. operates under a more individualistic political and economic model, while China adheres to a collective governance system. These differences are likely to be reflected in the language used by their central banks, the Fed and the PBC, in their policy discourses. Role and Reference Grammar (RRG) offers a comprehensive framework to analyze how these cultural and political differences are manifested in the syntactic, semantic, and pragmatic aspects of their policy discourses. This study applies RRG to investigate the syntax-semantics-pragmatics interface (i.e., the systematic interaction among sentence structure, meaning, and context-driven information structure) in the monetary policy discourses of the Fed and the PBC. Specifically, it examines syntactic templates (transitive, intransitive, and copular clauses; active vs. passive voice), semantic role mappings (assignment of Actor and Undergoer to subjects and objects), and pragmatic focus structures (topic-comment constructions and copular clauses) in their speeches from 2016 to 2025. Through a cross-cultural discourse analysis, the research seeks to identify systematic contrasts between the two central banks' linguistic strategies and to explain how grammatical choices, together with their semantic and pragmatic motivations, mediate institutional authority and communication transparency.

Against this backdrop, three key research questions guide this study, each corresponding to one level of the RRG framework.

Question 1 (Syntactic dimension): What are the key differences between the Fed and the PBC discourses in their use of transitive, intransitive, and copular clause types, as well as active versus passive voice? How do these syntactic choices encode agency, responsibility, and institutional identity, and what do they reveal about each bank's preference for foregrounding or backgrounding the institutional Actor?

Question 2 (Semantic dimension): How do the two central banks differ in semantic role mapping, particularly regarding explicit versus implicit Actors and concrete versus abstract Undergoers? What do these patterns reveal about the cultural and political factors shaping each bank's construal of policy causality?

Question 3 (Pragmatic dimension): What are the distinguishing pragmatic focus structures in the Fed and the PBC discourses? How do these structures shape perceptions of authority, accountability, and transparency, and how do they interact with the syntactic and semantic patterns identified above?

Theoretically, this study advances the application of RRG to institutional discourses, demonstrating its utility in decoding cross-cultural pragmatics through the syntax-semantics-pragmatics interface. Practically, it provides actionable insights for central banks to optimize policy communication in multilingual contexts, balancing syntactic precision with cultural resonance.

2. Literature review

Role and Reference Grammar (RRG) is a functional-typological framework that explains how syntactic structure arises from the interaction of semantic and pragmatic factors (Van Valin & LaPolla, 1997; Van Valin, 2005), as illustrated in Figure 1. At the syntactic level, RRG posits a layered clause structure (nucleus → core → periphery) that distinguishes obligatory arguments from optional adjuncts. At the semantic level, it reduces thematic roles to two macro-roles — Actor (agent-like) and Undergoer (patient-like) — and provides a bidirectional linking algorithm that maps them onto syntactic positions (e.g., subject vs. object in active/passive clauses). At the pragmatic level, RRG analyzes focus types (predicate, narrow, sentence) and topic-comment structures as information-packaging devices that directly shape the selection of syntactic templates (e.g., copular clauses, fronting). Crucially, RRG treats syntax, semantics, and pragmatics as interacting levels linked by principled rules, making it particularly suitable for analyzing how institutional discourses such as central bank discourses simultaneously encode agency, responsibility, and information structure.

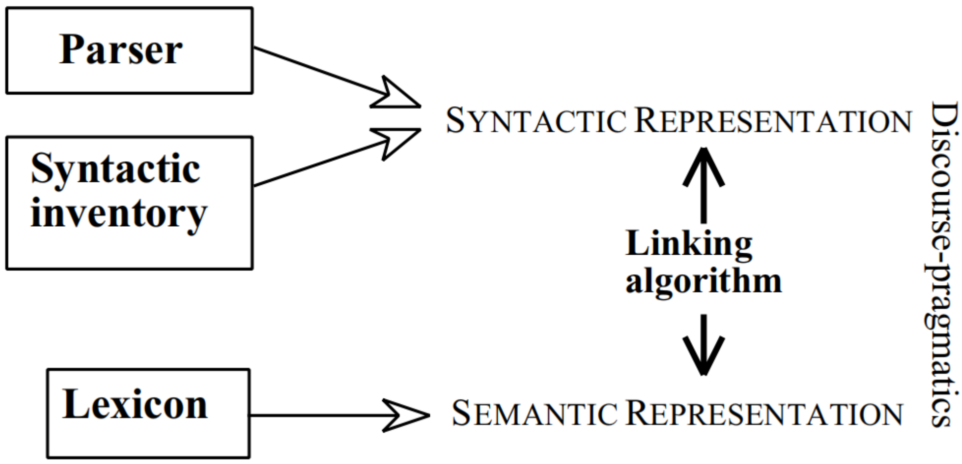

Figure 1. Organization of RRG (Van Valin, 2005: 131)

Previous studies have demonstrated the versatility of RRG across a wide range of linguistic phenomena. At the level of grammatical explanation, Balogh (2021) draws on the framework to account for additive particle uses in Hungarian, illustrating how RRG captures language-specific morphosyntactic behavior with precision; extending this explanatory reach to the lexical-semantic level, Rodríguez-Juárez (2017) examines the alternating behavior of location arguments, while Ge and Wu (2023) uncover the semantic and syntactic mechanisms underlying the humor of combined-pun Xiehouyu, revealing RRG's capacity to handle typologically diverse data. Moving from theoretical explanation to computational formalization, Cortés-Rodríguez (2016) pioneers the syntactic parsing of RRG phrasal constituents, and Hernández-Pastor and Periñán-Pascual (2016) build on this foundation to develop a knowledge base for preposition sense disambiguation, demonstrating that RRG's formal architecture is sufficiently tractable for natural language processing applications; the quantitative potential of the framework is further substantiated by Rodríguez-Juárez and Cortés-Rodríguez (2022), whose corpus-based analysis of adjuncts in the Airbus Corpus bridges theoretical formalism and large-scale empirical inquiry. Situating RRG within the broader landscape of grammatical theory, Butler (2012) offers a systematic evaluative comparison of syntactic functions in Functional Discourse Grammar and RRG, clarifying the framework's theoretical positioning relative to competing models. Alongside these developments, a distinct strand of scholarship has pursued RRG's application to Chinese linguistics: Wang (2017) provides a critical synthesis of the framework's latest theoretical advances, with particular attention to its integrated treatment of syntax, semantics, and pragmatics as an integration especially productive for Mandarin, where the syntax-discourse interface is pervasive. Beyond canonical linguistic contexts, RRG has also found traction in clinical settings: Suárez Rodríguez (2024a, 2024b) investigates whether Alzheimer's Disease manifests as a cross-linguistic phenomenon through corpus comparison and offers fine-grained analysis of syntactic-semantic breakdowns in English-speaking patients, signaling the framework's expanding diagnostic relevance.

Taken together, these studies illustrate RRG's explanatory power for phenomena as diverse as morphology, syntax, semantics, and discourse, as well as its applicability to both healthy and impaired language.

Despite this breadth, the application of RRG to institutional discourses — and specifically to central bank communication — remains remarkably limited. Some research has explored RRG's application to Chinese, highlighting its potential for explaining syntactic and semantic phenomena in non-Indo-European languages (Pan, 2000; Zhang & Xie, 2004; Liu, 2015; Wang, 2017). However, these studies do not extend to the analysis of how central banks use grammatical structures to encode authority, responsibility, or information structure in policy discourses. Given that RRG is uniquely equipped to handle the syntax-semantics-pragmatics interface — including voice alternations, topic-comment constructions, and focus types — it offers an ideal framework for systematically comparing how the Fed and the PBC construct their policy messages across different political and cultural contexts. By applying RRG to central bank speeches, this study aims to uncover how cultural and political factors are grammatically encoded, thereby providing insights for more effective and transparent monetary policy communication in a globalized world.

3. Research methods

This study conducts a cross-cultural discourse analysis of monetary policy speeches by the PBC governors and the Fed chairs from 2016 to 2025, using RRG as the theoretical framework. A mixed-method approach combining quantitative corpus analysis and qualitative RRG-guided annotation is employed.

3.1 Data collection

The research focuses on the corpora comprising 20 central bank discourses (10 addresses from the Fed chairs and 10 speeches from the PBC governors) spanning the period from 2016 to 2025. This decade-long period captures a range of economic conditions, from pre-pandemic normalization to the COVID-19 crisis and the subsequent high-inflation environment, ensuring diverse discourse characteristics. These speeches are sourced from official channels including the official websites of the PBC (www.pbc.gov.cn) and the Fed (www.federalreserve.gov), ensuring the authenticity and representativeness of the data. The addresses of the PBC governors are collected from the annual reports of the PBC with the title of "Governor's Address" as their beginning parts to show introductory parts of the annual reports, and the speeches from the Fed chairs are directly collected from the official website of the Fed with the speakers from the chairs and the titles on economic outlook and monetary policy or related topics.

The selection of this 10-year time frame is strategic, as it ensures that the data accurately captures the contemporary monetary policy discourses of both central banks. Thus, the selection covers a range of economic situations and policy-making periods to capture diverse discourse characteristics. After the data being collected and sorted out, the research corpora of Chinese and American central bank policy discourses are constructed respectively as Chinese text corpus and English text corpus. The Chinese corpus with the total of 21,845 Chinese characters, segmented by NLPIR-ICTCLAS, and the English corpus, have been searched and analyzed in AntConc 3.5.8, and, for resolving ambiguous clause boundaries, the DeepSeek large language model was consulted on a small set of challenging cases. The English corpus owns 2,878 word types and 24,902 word tokens, while the Chinese corpus boasts 2,028 word types and 9,165 word tokens. Table 1 presents the basic information (speaker, time range, and title/theme) for the Chinese and U.S. central bank discourses. The Fed contributed 10 speeches: 2 by Janet L. Yellen (2016–2017) — a Yale-trained economist and the first woman to chair the Federal Reserve, later becoming the first female U.S. Treasury Secretary — on economic outlook and monetary policy; and 8 by Jerome H. Powell (2018–2025) — a lawyer and investment banker by training (Princeton and Georgetown Law) who became the 16th Fed Chair and pragmatically steered the central bank's COVID-19 crisis response — on monetary policy, inflation, financial stability, etc. The PBC contributed 10 addresses: 3 by Zhou Xiaochuan (2016--2018)---a computer engineer turned reformer, China's longest-serving central bank governor (2002--2018) and internationally known as "Mr. RMB" for renminbi exchange rate reforms---; 5 by Yi Gang (2019--2023)---a University of Illinois Ph.D. economist, co-founder of Peking University's China Center for Economic Research, who brought rigorous academic training in econometrics to the PBC governorship---; and 2 by Pan Gongsheng (2024--2025)---a Cambridge- and Harvard-trained Ph.D. economist (Renmin University) who previously led the restructuring of Industrial and Commercial Bank of China and Agricultural Bank of China. All speeches are under the theme "Governor's Address in Annual Report" for the PBC, and for the Fed the themes vary as indicated.

Table 1. Data for Chinese and American central bank addresses

Central Bank	Speakers	Number of Addresses	Time Range	Theme Type
The Fed	Janet L. Yellen	2	2016-2017	Economic Outlook and Monetary Policy
	Jerome H. Powell	8	2018-2025	Monetary Policy, Inflation, Financial Stability, etc.
The PBC	Zhou Xiaochuan	3	2016-2018	Governor's Address in Annual Report
	Yi Gang	5	2019-2023	Governor's Address in Annual Report
	Pan Gongsheng	2	2024-2025	Governor's Address in Annual Report

3.2 Analytical framework

This study operationalizes RRG at three levels: syntax, semantics, and pragmatics. The unit of analysis for all levels is the clause, as segmented and annotated in the Excel dataset. Each level is linked to a specific research question: syntactic typology for Question 1, semantic role mapping for Question 2, and pragmatic focus for Question 3. The three levels are analytically distinct but interact systematically, as shown in Table 2.

Table 2. Three-level RRG analytical framework for central bank discourses

Analytical Level	Categories / Roles	Definition & Core Function	Examples from the Corpora of the Fed and the PBC
1.Syntactic typology	Transitive	Predicate with two core arguments; foregrounds agency and direct causality.	The FOMC could readily raise its target range for the federal funds rate to stabilize the economy. (Yellen, 2016); 中国人民银行增加支农支小再贷款再贴现额度 2500 亿元 (The People's Bank of China increased the quota of relending and rediscount for agriculture and small businesses by 250 billion yuan.) (Pan, 2024)
	Intransitive	Predicate with one core argument; backgrounds agent or expresses state/ process.	Inflation rose and broadened out from goods into services.(Powell, 2024); 经济结构加快调整 (Economic structural adjustment is accelerating.) (Zhou, 2017)
	Copular / TopicComment	Identifies or describes subject (English copula "be"; Chinese zero	Price stability is the bedrock of our economy. (Powell, 2022); 稳健的货币政策精准有力（The prudent monetary policy is precise and forceful.）(Pan, 2024)
2.Semantic role mapping	Actor	Most agent-like participant; initiates or is responsible for action/state.	We will do everything we can to support a strong labor market... (Powell, 2024)； 中国人民银行综合运用多种货币政策工具，保持流动性合理充裕（The People's Bank of China comprehensively uses various monetary policy tools to maintain reasonable and ample liquidity.）(Yi, 2023)
	Undergoer	Most patient-like participant; directly affected by action/state.	... emphasizes our commitment. . . (Powell, 2024); 有效防控金融风险（Effectively prevent and control financial risks.）(Yi, 2020)
3.Pragmatic focus	Narrow Focus (often realized via copular clause in the Fed; via topic-comment in the PBC)	Highlights a single constituent; signals precise priorities.	Our overarching focus is to bring inflation back down. (Powell, 2022)； 保持人民币汇率在合理均衡水平上基本稳定（Keep the RMB exchange rate basically stable at an adaptive and equilibrium level.）(Yi, 2021)
	Broad Focus (typically declarative active clauses)	Places entire proposition (or large part) in focus; typical of general policy statements.	We will take forceful and rapid steps to moderate demand... (Powell, 2022); 中国人民银行将以习近平新时代中国特色社会主义思想为指导 . . . （The People's Bank of China will be guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era...）(Yi, 2019)

The three levels are interconnected: the choice of syntactic structure (e.g., transitive vs. copular) constrains possible semantic role mappings (explicit Actor vs. implicit), and pragmatic focus can influence which role is foregrounded. By integrating these levels, the framework enables a systematic comparison of how the Fed and the PBC encode agency, responsibility, and authoritative judgment in their monetary policy discourses.

3.3 Analytical procedures and coding

The analysis follows a five-step procedure that integrates quantitative and qualitative methods. All coding was performed manually by the author and recorded in an Excel spreadsheet, ensuring transparency and replicability.

Step 1: Clause segmentation and cleaning

Each policy address was segmented into individual clauses. For the English corpus, the NLTK sentence tokenizer was applied, followed by manual correction of clause boundaries (e.g., separating coordinate clauses). For the Chinese corpus, segmentation was performed using NLPIR-ICTCLAS, with manual verification to ensure consistency. Clauses that were incomplete, purely nominal, or irrelevant to monetary policy discourse (e.g., salutations) were excluded.

Step 2: Multi-level manual coding

Each clause was coded for the following features, directly operationalizing the three levels of RRG analysis defined in Table 2. The coding scheme is summarized in Table 3.

Table 3. Clause-level coding scheme

Coding field	Description	Values (Examples)
Syntactic type	Clause structure based on core arguments	Transitive / Intransitive / Copular (or Topic-Comment)
Voice	Grammatical marking of agency	Active / Passive
Subject	Grammatical subject of the clause	Text string (e.g., “the FOMC”, “ ”)
Object	Grammatical object (if present)	Text string or “None”
Predicate	Main predicate of the clause	Text string (e.g., “raised”, “ ”)
Actor	RRG macro-role (agent-like)	Text string or “Implicit”
Undergoer	RRG macro-role (patient-like)	Text string or “Implicit”
Pragmatic focus	Information structure emphasis; broad focus subsumes predicate focus and sentence focus	Narrow / Broad (classified heuristically based on the presence of copular or

This coding scheme directly mirrors the columns in the Excel dataset (see PBC and Fed sheets in the supplementary file). Each clause was assigned a unique ID (e.g., PBC_2016_001, FED_2024_015) to facilitate cross-referencing.

Step 3: Quantitative analysis

The coded Excel data were imported into AntConc 3.5.8 for frequency counts and into pivot tables (within Excel) to calculate the distributions of syntactic types (transitive, intransitive, and copular/topic-comment), voice (active vs. passive), and the most frequent subjects, objects, and predicates across the two corpora, thereby providing a macro-level, data-driven comparison between the Fed and PBC discourses.

Step 4: Qualitative, RRG-guided analysis

Building on the quantitative patterns, representative clauses were selected for each major pattern (e.g., transitive clauses with “we” as Actor in Fed speeches; zero-copula topic-comment in the PBC discourses).

For each example, RRG was used to analyze the mapping between syntactic structure (Subject, Object), semantic roles (Actor, Undergoer, including implicit ones), and pragmatic focus. This step answered the how and why behind the quantitative findings, as illustrated in Table 2.

Step 5: Cross-cultural synthesis

The final step integrated the quantitative and qualitative findings. Linguistic patterns (e.g., the Fed's higher proportion of copular clauses) were interpreted in relation to broader cultural and institutional contexts (e.g., individualistic accountability vs. collective governance), thereby answering the two research questions concerning how linguistic structures encode distinct patterns of authority and transparency.

4.Results and discussion

This study employs the three-level analytical framework of RRG to systematically compare the monetary policy discourses of the Fed and the PBC from 2016 to 2025. The analysis reveals systematic and statistically significant differences across the syntactic, semantic, and pragmatic levels, which we argue are indicative of deeper cultural, political, and institutional divergences. The results are structured around the three levels of analysis defined in our methodology.

4.1 Syntactic typology

The most striking syntactic difference between the two corpora lies in the distribution of transitive, intransitive, and copular clauses. As summarized in Table 4, the PBC discourses are overwhelmingly transitive, using this structure more than 1.8 times as frequently as the Fed discourses (81.4% vs. 43.3%). Conversely, the Fed uses copular clauses at a rate more than ten times higher than the PBC (27.7% vs. 2.5%).

Table 4. Comparison of syntactic types between the PBC and the Fed addresses

Speakers	Clauses	Transitive		Intransitive		Copular	
		No.	Prop.	No.	Prop.	No.	Prop.
The PBC Governors	1137	926	81.4%	183	16.1%	28	2.5%
The Fed Chairs	1340	580	43.3%	389	29.0%	371	27.7%

Note: No.refers to number, and Prop.refers to proportion.

4.1.1 Transitive constructions in the PBC corpus

The PBC's strong preference for the transitive structure serves to foreground a clear, direct, and forceful relationship between an Actor (overwhelmingly the institution itself) and a policy Undergoer. This pattern aligns with a communication style that emphasizes action, execution, and the direct impact of policy tools on specific economic targets. The high frequency of transitive clauses projects an image of an institution actively shaping economic outcomes, consistent with a governance model that prioritizes decisive state-led initiatives. Example (1) from 2016 illustrates this pattern:

(1) 中国人民银行继续推动 Predicate 银行间市场创新发展 Undergoer.

(The People's Bank of China continued to promote the innovative development of the interbank market.) (Zhou, 2016; Clause PBC_2016_054)

A similarly structured transitive clause from 2024 demonstrates the consistency of this pattern across different governors and years:

(2) 中国人民银行综合运用 Predicate 多种货币政策工具 Undergoer.

(The People's Bank of China comprehensively uses various monetary policy tools.) (Pan, 2024; Clause PBC_2024_011)

Both examples place the institutional Actor ("The People's Bank of China") in subject position, follow it with a transitive predicate, and explicitly name the policy object, thereby encoding a direct causal relationship between the central bank's action and its intended economic outcome. This consistent transitive pattern across different governors and policy contexts reinforces the PBC's identity as a singular, unified, and authoritative actor whose agency is rarely diffused or questioned.

4.1.2 Intransitive constructions in the Fed corpus

In stark contrast, the Fed's discourses heavily favor intransitive constructions, particularly of two subtypes: traditional intransitive clauses (predicate with a single core argument) and copular clauses (S+be+C), where S stands for subject, be for the copular predicate, and C for complement (e.g., a noun phrase or adjective). Example (3) is a traditional intransitive clause from 2024, where the predicate "rose" takes no object and simply describes a process:

(3) Inflation rose and broadened out from goods into services. (Powell, 2024; Clause FED_2024_082)

The Fed's unique and heavy reliance on copular constructions is illustrated in Example (4) from 2016. Here, the copula "is" serves not to describe an action but to make a definitive, judgmental assertion, equipping the Committee's assessment with its inherent uncertainty:

(4) That said, this assessment is only a forecast. (Yellen, 2016; Clause FED_2016_087)

Here, the copular clause narrows the focus onto the complement "only a forecast", foregrounding the Fed's own metalinguistic evaluation of its assessment as inherently provisional, rather than reporting an economic action or event.

Copular clauses project a form of rational, data-driven authority, where the central bank's power lies in its ability to frame and identify economic conditions and its own objectives with precision. The traditional intransitive clauses, by contrast, background agency entirely, presenting economic processes as unfolding independently. Together, these two intransitive subtypes enable the Fed to alternate between authoritative judgment and detached observation — a discursive flexibility that is largely absent in the PBC's overwhelmingly transitive discourse.

4.1.3 Active vs. passive voice

Another major syntactic difference lies in the use of voice. While the active voice dominates in both corpora, the PBC uses passive constructions at nearly twice the rate of the Fed. Table 5 summarizes the distribution, highlighting a systematic divergence in how each central bank backgrounds or foregrounds institutional agency.

Table 5. Active and passive voice between the PBC and the Fed addresses

Speakers	Clauses	Active		Passive	
		No.	Prop.	No.	Prop.
The PBC Governors	1137	1026	90.2%	111	9.8%
The Fed Chairs	1340	1273	95.0%	67	5.0%

Active voice is the default choice for both central banks, as shown in (5) from the Fed and (6) from the PBC, a default reflecting their unmarked encoding of agency:

(5) We will take forceful and rapid steps to moderate demand. (Powell, 2022; Clause FED_2022_080)

(6) 中国人民银行增加支农支小再贷款再贴现额度 2500 亿元。

(The People's Bank of China increased the quota of relending and rediscount for agriculture and small businesses by 250 billion yuan.) (Pan, 2024; Clause PBC_2024_025)

In the active voice, the Actor is explicit and occupies subject position, foregrounding agency. This is the unmarked choice in both institutional discourses. However, the passive voice is used strategically, particularly by the PBC, to defocus or omit the Actor. The passive voice in RRG is a syntactic operation that selects the Undergoer as subject, thereby backgrounding the Actor. In the PBC corpus, this is often realized as an implicit Actor, as shown in (7) from the Fed and (8) from the PBC: namely, a construction where the Actor is omitted or implied.

(7) The federal funds rate was held near zero to support the recovery. (Yellen, 2016; Clause FED_2016_005) (implied Actor: FOMC)

(8) 人民币国际化和资本项目可兑换持续推进。

(The internationalization of the RMB and the convertibility of the capital account were steadily advanced.) (Zhou, 2016; Clause PBC_2016_043) (implicit Actor)

In (8), the passive construction entirely omits the Agent, directing the audience's attention to the policy action itself rather than to who performed it. This strategic use of the passive aligns with the collectivist cultural logic of "backgrounding" individual agency, framing policy outcomes as the result of a broader, de-personalized governance process. The Fed uses passive voice much less frequently, and when it does (as in 7), the implied Actor (the FOMC) remains recoverable from context, reflecting a different institutional stance toward accountability.

Three robust syntactic contrasts emerge between the two central banks. First, the PBC overwhelmingly favors transitive clauses (81.4% vs. 43.3%), explicitly linking the institutional Actor to policy Undergoers and projecting an executive, action-oriented authority. Second, the Fed relies heavily on intransitive constructions, particularly copular clauses (27.7% vs. 2.5%), which enable definitive, data-driven judgments about economic reality. Third, while active voice dominates in both corpora, the PBC uses passive voice nearly twice as often as the Fed (9.8% vs. 5.0%), strategically backgrounding the institutional Actor to focus attention on policy actions themselves. These syntactic preferences thus instantiate distinct cultural logics of governance: the PBC's transitive and passive patterns reflect a collective, mission-driven approach, while the Fed's copular and intransitive patterns embody an individualistic, analytical stance. These syntactic differences are not stylistic accidents but constitute systematic linguistic strategies that encode distinct models of agency, responsibility, and institutional identity, which will be further explored through semantic role mapping (Section 4.2) and pragmatic focus structures (Section 4.3).

4.2 Semantic role mapping

The syntactic differences correspond to distinct patterns of semantic role assignment, specifically the distribution of the macro-roles Actor (most agent-like participant) and Undergoer (most patient-like participant). The most frequent lexical choices for these roles, detailed in Table 6, reveal fundamental differences in what each central bank construes as the primary agents and patients of its policy discourse, thus providing the semantic grounding for the syntactic contrasts observed in Section 4.1.

Table 6. Most frequent semantic roles in the PBC and the Fed addresses

Speakers	Most Frequent Actor (Role)	% of all clauses	Most Frequent Undergoer (Role)	% of all clauses
The PBC governors	The People's Bank of China (explicit)	70.6%	abstract policy goals (e.g., 金融服务 , 改革)	2–4% (each)
	Implicit (in passives, etc.)	19.4%		
The Fed chairs	we / the FOMC	9.8% / 4.7%	concrete economic variables (e.g., inflation, rate)	2–6% (each)

Note: For the PBC, “The People’s Bank of China” is the explicit Actor in 70.6% of all clauses (803/1,137); implicit Actors account for 19.4%. Individual abstract policy goals as Undergoer each appear in 2–4% of clauses. For the Fed, all percentages are also calculated as proportions of all clauses (1,340 clauses).

The PBC’s Actor is overwhelmingly, and with striking consistency, The People’s Bank of China, appearing as the most frequent Actor in every single year from 2016 to 2025, accounting for 70.6% of all clauses. This highly unified and explicit Actor role, combined with a significant proportion of implicit Actors in passive constructions, reinforces an image of a singular, unified, and authoritative institutional Actor whose presence is both constant and, at times, strategically backgrounded. The Undergoers of these actions are highly abstract, representing collective, long-term, and macro-level policy goals such as “financial services,” “reform,” and “financial stability.” This pattern suggests that the PBC’s discourse is oriented towards announcing and enacting broad state-directed missions. Two examples from different governors illustrate this pattern:

(9) 中国人民银行坚持稳中求进工作总基调。

(The People’s Bank of China adhered to the general principle of making progress while maintaining stability.) (Zhou, 2017; Clause PBC_2017_008)

As in (9), this transitive clause places the institutional Actor The People’s Bank of China in subject position. The predicate adhered to expresses a sustained policy stance, and the Undergoer is the abstract, strategic principle making progress while maintaining stability, enacting the PBC’s role as a unified executor of broad state directives.

(10) 中国人民银行有效履行宏观调控和金融管理职责。

(The People’s Bank of China effectively performed its macro-control and financial management responsibilities.) (Pan, 2025; Clause PBC_2025_002)

This transitive clause in (10) once again features the unified Actor The People’s Bank of China. The predicate performed takes a highly abstract Undergoer – macro-control and financial management responsibilities – reflecting the PBC’s mission-driven orientation toward long-term, institutional functions rather than short-term economic metrics.

In contrast, the Fed’s most frequent Actor roles are the inclusive first-person plural we and the FOMC. While less monolithic than the PBC’s single institutional Actor, these choices serve to distribute agency across a committee or represent a collective “we” of the institution. The Undergoers are significantly more concrete and specific, being directly measurable economic variables like inflation, monetary policy, and the federal funds rate. For example, in 2022, the most frequent Undergoer was inflation (6 times, 7.4% of clauses), and the most frequent copular predicate was is, used for definitive classification. This reflects the Fed’s data-dependent and target-oriented approach, where communication is focused on the central bank’s relationship with specific, short-to-medium-term economic metrics. Two further examples from different years demonstrate this semantic orientation:

(11) We will do everything we can to support a strong labor market. (Powell, 2024; Clause FED_2024_046)

This transitive clause in (11) uses the first-person plural Actor We, distributing agency across the FOMC. The Undergoer is the concrete policy goal everything we can to support a strong labor market. The predicate phrase will do signals a proactive, commitment-based stance, reflecting the Fed’s focus on measurable labor market outcomes.

(12) The FOMC has gradually raised the federal funds rate from its crisis-era low near zero toward more normal levels. (Powell, 2018; Clause FED_2018_012)

For (12), this transitive clause features the collective institutional Actor the FOMC in subject position. The Undergoer is the concrete economic variable the federal funds rate, a directly controllable policy instrument. The predicate phrase has gradually raised embodies the Fed's data-dependent, step-by-step normalization approach, highlighting a committee-based agency that acts with measured, transparent calibration.

In sum, the semantic role mapping reveals a fundamental contrast in how the two central banks construe agency and causality in their policy discourses. The PBC discourses are characterized by a highly unified and persistent explicit Actor (The People's Bank of China), complemented by strategic use of implicit Actors (via passives), with Undergoers being abstract, long-term policy goals. This pattern reinforces an institutional identity of a singular, authoritative actor enacting collective, state-directed missions. Conversely, the Fed discourses distribute agency across a committee (we / the FOMC), with Undergoers being concrete, near-term economic variables or actionable policy instruments. This reflects an individualistic, data-dependent, and target-oriented institutional logic, where the central bank's primary role is to manage its relationship with specific, measurable economic outcomes. These distinct semantic patterns provide the necessary grounding for the syntactic choices observed in Section 4.1 and the pragmatic structures to be analyzed in Section 4.3.

4.3 Pragmatic focus

The final layer of RRG analysis concerns pragmatic focus — how information is packaged to signal what is new or important. The syntactic and semantic patterns discussed above coalesce to create two distinct pragmatic macro-strategies, each of which reflects a different institutional logic of communication and authority. The key pragmatic contrasts between the two central banks are summarized in Table 7.

Table 7. Pragmatic focus comparison between the Fed and the PBC

The Fed (Narrow Focus)	The PBC (Broad Focus)
Copular clauses (27.7%)	Explicit copular clauses (2.5%); zero-copula topic-comment pervasive
Isolated judgment	Holistic policy assessment

In RRG terms, the Fed's strategy centers on narrow focus (highlighting a single constituent, often via copular clauses), while the PBC's strategy falls under broad focus, which subsumes both predicate focus (comment on a topic) and sentence focus (all-new information). Given the nature of these prepared institutional addresses, predicate focus is the dominant subtype for both central banks; therefore, the critical cross-cultural contrast lies not between predicate and sentence focus, but between narrow and broad focus as realized through distinct grammatical structures.

The Fed favors a Narrow Focus realized through copular clauses and first-person plural subjects. The high frequency of copular clauses (27.7%) is the primary vehicle for this strategy. These clauses are not used to describe events but to make focused, classificatory assertions about the nature of economic reality and the Fed's own objectives. This projects a pragmatic stance of a rational, analytic, and decisive authority that isolates and declares specific priorities.

(13) The path of recovery has been a difficult one. (Powell, 2021; Clause FED_2021_004)

The copular clause in (13) narrows focus onto the complement "a difficult one," foregrounding the Fed's qualitative judgment of the recovery path rather than describing an action.

(14) The neutral rate currently appears to be quite low by historical standards, implying that the federal funds rate would not have to rise much further to get to a neutral policy stance. (Yellen, 2017; Clause FED_2017_083)

As for (14), this copular construction places narrow focus on the complement "quite low by historical standards," allowing Chair Yellen to make a precise, data-informed judgment about an abstract economic concept without attributing direct agency to the Fed.

The PBC favors a Broad Focus realized through specialized topic-comment structures (zero-copula) and transitive clauses with implicit Actors. The PBC's addresses effectively operate without a direct equivalent to the English copula, using a zero-copula topic-comment structure as shown below. This structure, where a sentence is framed as a topic followed by its comment, places the entire proposition "in focus," presenting it as given or backgrounded information (the topic) about which a new assertion is made (the comment). This forces the audience to engage with the logical connection between the policy objective (topic) and its assigned attributes (comment).

(15) 金融运行 [Topic] 总体平稳 [Comment].

(Financial operations are generally stable.)

(Yi, 2019; Clause PBC_2019_081)

The subject here functions as a given topic, and the comment provides a holistic assessment. Unlike English copular clauses with narrow focus, this structure places the entire proposition in broad focus, directing attention to the policy condition rather than a single element. Such zero-copula patterns are pervasive in the PBC corpus and serve as the primary vehicle for broad-focus strategies.

(16) 稳健的货币政策 [Topic] 精准有力 [Comment].

(The prudent monetary policy is precise and forceful.) (Pan, 2024; Clause PBC_2024_010)

The topic "prudent monetary policy" is given in (16), and the comment "precise and forceful" provides a holistic assessment, directing attention to the policy's quality rather than to who enacted it.

When combined with high frequency of transitive clauses, this topic-comment structure creates a discourse that emphasizes the breadth and scope of policy actions and their alignment with pre-established national missions, rather than isolating specific, short-term objectives for focused attention. The frequent use of implicit Actors in passive constructions further broadens the focus by removing the individual agent from the scene, directing attention entirely to the policy action and its intended effect. This reflects a governance logic where accountability is diffused, and actions are presented as outcomes of a collective, ongoing process, not the decisions of a few identifiable individuals. In essence, the Fed's narrow focus enacts a logic of analytical accountability, explicitly attributing judgments to identifiable agents (we / the FOMC) and specific economic variables, as seen in both Powell's assessment of the recovery and Yellen's calibrated statement on the neutral rate. The PBC's broad focus, by contrast, embodies a logic of mission-driven collective action, where policy actions are framed as natural extensions of overarching national strategies and institutional continuity. These divergent pragmatic strategies are not accidental but systematically align with each central bank's broader political and cultural environment, reinforcing their respective public identities through grammatical choice.

4.4 Synthesizing the RRG analysis

By synthesizing the three levels of RRG analysis, this study demonstrates that the linguistic choices of the Fed and the PBC are not arbitrary but are tightly integrated systems that project fundamentally different models of institutional authority and communication transparency, thereby directly addressing the three research questions.

With respect to the syntactic dimension (Q1), the analysis reveals that the Fed relies heavily on copular clauses (27.7% vs. 2.5%), while the PBC predominantly uses transitive clauses (81.4% vs. 43.3%) and employs passive voice nearly twice as frequently (9.8% vs. 5.0%). These syntactic choices encode distinct agency patterns: the Fed foregrounds definitional judgment, using the copula to frame economic conditions as matters of classification and evaluation; the PBC foregrounds direct policy action and backgrounds the institutional Actor via passivization, presenting policies as inevitable outcomes of collective governance rather than individual decisions, thereby laying the syntactic groundwork for two divergent logics of institutional accountability.

With respect to the semantic dimension (Q2), the findings demonstrate that the Fed predominantly employs first-person plural we and the FOMC as Actors, with Undergoers being concrete economic variables (inflation, policy rate). The PBC predominantly employs The People's Bank of China as the single, persistent Actor, frequently uses implicit Actors, and assigns abstract policy goals (e.g., 金融服务，改革) as Undergoers. These semantic role mappings reflect a contrast between individualistic accountability — where agency is distributed among committee members and linked to measurable targets — and collective governance — where agency is centralized in the institution and directed toward long-term, mission-driven objectives, thus providing the semantic substance that realizes these distinct accountability models.

With respect to the pragmatic dimension (Q3), the results reveal that the Fed uses explicit copular clauses to construct narrow focus and judgmental assertions, reflecting a data-driven rational authority that isolates specific priorities for public scrutiny. The PBC uses zero-copula topic-comment structures, implicit Actors, and passive constructions to achieve broad focus, directing audience attention to policies themselves rather than to policy-makers, and reflecting the discursive logic of collective governance, where accountability is diffused across the institutional system, thereby completing the tripartite RRG account of how each central bank projects its public identity through grammatical choice.

Integrating the three dimensions, the Fed's syntactic preference for copular clauses, semantic preference for we as Actor and concrete economic variables as Undergoer, and resulting narrow pragmatic focus collectively construct an Individualistic Accountability Model. This model projects an authority that is rational and analytic, making focused, data-dependent judgments while clearly identifying its own agency (we/the FOMC) and its direct impact on specific economic metrics. The high proportion of copular clauses enhances transparency by explicitly labeling what the institution believes to be true, yet the narrow focus can also be seen as a form of controlled transparency, directing public attention to a carefully selected set of priorities.

Conversely, the PBC's syntactic preference for transitive and passive voice, semantic preference for The People's Bank of China and abstract policy goals, and resulting broad, topic-comment pragmatic focus collectively construct a Collective Governance Model. This model projects an authority that is executive and mission-driven, announcing and enacting a broad policy agenda within a cohesive national strategy. The lower frequency of explicit copular judgments and the strategic use of implicit Actors constitute a different form of transparency — one of directional clarity rather than analytical specificity, where overarching goals and institutional action are clear, while granular individual accountability for specific judgments is deliberately downplayed.

Taken together, the application of RRG provides robust empirical evidence that the Fed and the PBC have developed distinct, systematic, and culturally congruent linguistic strategies for communicating monetary policy. These strategies are not merely stylistic differences but are constitutive of each institution's public identity, authority, and relationship with its audience. By demonstrating how syntactic choices, semantic role mappings, and pragmatic focus structures operate in concert, this synthesis underscores the value of RRG as a holistic framework for cross-cultural institutional discourse analysis.

5. Conclusion

Building on the three-level RRG analysis, this study has systematically compared the monetary policy discourses of the Fed and the PBC across syntactic, semantic, and pragmatic dimensions. The results reveal answers to the three research questions as follows. Syntactically, the Fed preferentially employs copular clauses (27.7% vs. 2.5%), whereas the PBC favors transitive clauses (81.4% vs. 43.3%) and uses passive voice nearly twice as often (9.8% vs. 5.0%), encoding distinct agency patterns. Semantically, the Fed relies on first-person plural we and concrete economic Undergoers (e.g., inflation, policy rate), while the PBC deploys a single institutional Actor (The People's Bank of China) and abstract policy goals, reflecting individualistic versus collective governance. Pragmatically, the Fed's narrow focus via copular clauses constructs a rational, data-driven authority, whereas the PBC's broad focus via zero-copula topic-comment and implicit Actors foregrounds policy actions over individual agents. These systematic contrasts demonstrate that RRG provides a powerful framework for decoding how cultural and political factors are grammatically encoded in institutional communication. The findings also offer practical insights for central banks aiming to enhance cross-cultural transparency, suggesting that adapting syntactic and pragmatic choices to the cultural expectations of different audiences can improve the clarity and resonance of policy messages.

Despite these contributions, several limitations should be acknowledged. First, the corpus, though covering a decade, is restricted to annual addresses and prepared speeches, excluding more spontaneous forms of central bank communication such as press conference Q&A sessions, meeting minutes, or informal statements. Second, the analysis is limited to two central banks; whether the observed patterns extend to other major monetary authorities (e.g., the European Central Bank, the Bank of Japan) remains to be tested. Third, the identification of pragmatic focus relies on heuristic classification based on copular and topic-comment structures; future work could strengthen intercoder reliability and incorporate computational methods for more fine-grained, replicable quantification. Future research should expand the dataset to include a wider variety of document types and institutional contexts, and consider integrating RRG with other frameworks such as critical discourse analysis or systemic functional linguistics to further unpack the ideological and social dimensions of central bank language. Additionally, cross-linguistic comparisons involving non-English and non-Chinese central banks would help determine whether the observed dichotomies are culturally specific or reflect more general typological tendencies in institutional discourses.

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