Unit’s Heterogeneity & System Differentiation—
The Logic of U.S.-China Relations’ Transition

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Abstract

In this paper, Unit Heterogeneity and the Degree of system differentiation are considered as the independent variables to explain the differential characteristics of the international structure, which lead to a differentiated interaction mode between hegemon and other rising powers. Then the paper further argues that globalization and nuclear deterrence lead to dynamic changes in system differentiation, and the heterogeneity between rising power and hegemonic power in geographical objectives, strategic culture, ideology, and polity are the conditions that hegemon must refer to when positioning the nature of rising power and interacting with rising power. However, the logic of power distribution is implied in the degree of system differentiation, and the author finds that in the process of globalization promoted by the hegemon if the relative power of rising powers becomes unconstrained, the hegemon will slow down globalization and suppress rising powers instead. The degree of urgency relates not only to power distribution but also to unit heterogeneity. Therefore, the paper distinguished four patterns in terms of great powers’ competition: duopoly competition in orderly anarchy status, alliance management in rigid hierarchy status, the dual-track embedded competition in loose hierarchy status, and quasi-perfect competition in chaotic anarchy status. In the end, the article verified the common modes of great power interaction, which are reflected in the competition between the U.S. and the USSR, differing interests between hegemon and allies inside the hegemon alliance, and U.S.-China competition.

Keywords: Great power, U.S.-China relations, Unit heterogeneity, System differentiation
1. **Introduction**

The U.S-China relation is the most complicated bilateral relations of the twenty-first century, which has the most profound impact on international order. Growing fears and increasingly intense countermeasures between China and the United States have contributed to a further decline in U.S.-China relations. On the other hand, globalization and nuclear deterrence are unlikely to bring back the Cold War. However, Normative constraints and institutional effects seem unable to reconcile the contradictions of power distribution. Therefore, the core puzzle is that what drives the U.S.-China New Cold War? Compared with the great powers’ competition previously, what is the logic behind the transition in U.S.-China relations?

2. **Literature review**

For a long time, the U.S. government holds the hope of peacefully evolving China through economic and cultural infiltration, abandoning the most pessimistic realism views about the Thucydides’ trap (Allison, 2017) and “great powers' tragedy” (Mearsheimer, 2001).

It looks like a victory for defensive realists who emphasize the offensive-defensive strength comparison and security dilemma (Jervis, 1978; Van Evera, 1999), as well as the counterbalance of the threat (Walt, 1995). However, review of China, after the Cold war, China has not shown its territorial expansion ambitions and has maintained a high degree of restraint in dealing with surrounding territorial conflicts. In addition, China focuses on defensive weapons in armament construction for offshore and homeland defence. In a sense, China should neither be seen as a threat nor have any offensive intentions. Furthermore, thanks to the positive incentives, the security dilemma based on constraint make East Asia more secure (Glaser, 2011). Since China was taken as a threat, things have changed.

Some realists have conducted liberal explorations, weakening the factors of military material power, even raising the conception of "accommodation of rising powers" (Paul, 2016), trying to prove that the absence of hard balancing on U.S. and accommodation of China’s rising to some extent is feasible. Some have conducted constructivism attempts, focusing on Chinese moderate strategic culture to distinguish the uniqueness of China from other great powers (Johnson, 2003).

From liberalism’s perspective, the thinking of hegemony order is more profound. China is deeply embedded into the hegemony order driven by the United States and thus has mutual interests in many issues (Griffiths, 2016; Evelyn, 2019; Ikenberry & Nexon, 2019; Kang, 2020). In this order, “China would be more likely to show flexibility on issues that are less central while on issues that are more central and less heterogeneous, the CCP is more likely to go it alone, forge an alternative coalition of states, or work to shift norms in a less liberal direction” (Weiss & Wallace, 2021, p.659). Since China is satisfied with the current
international system, according to Wohlforth (2009), "if the material costs and benefits of a given status quo are what matters, why would a state be dissatisfied with the very status quo that had abetted its rise? " (p.31).

For realists, who pay more attention to dyadic interaction between challenger and hegemon, find that heterogeneous factors such as the strategic culture of state play a role. For liberals, system differentiation and hegemony order influence the global allocation of resources and factors, which lead them to discuss the stability of the system and the possibility of a peaceful rise of great powers within a hegemony order.

"A system is composed of a structure and of interacting units" (Waltz, 1979, p.79). According to the definition of Waltz, variables that influence the great powers' competition patterns could be divided into the nit level and structure level.

3. Methods

3.1 Unit-Level: Heterogeneity of the states

Classical realists distinguished power policies: the states who want to increase power were labeled as imperialists that were dissatisfied with the status quo, while those that maintained power and demonstrated power were labeled as order-maintaining states who were satisfied with the status quo (Morgenthau, 1948,). Power transition theorists assume that international order is in a pyramidal hierarchy and once the great power is strong enough, it will compete with the dominant for the status that could benefit disproportionately from any state (Organski, 1958; Organski & Kugler, 1981).

This creates a misconception: all challengers are unsatisfied. However, It seems that not all rising powers are dissatisfied with the status quo order, given their prestige and position within that order" Moreover, dissatisfaction can be divided into different degrees. According to Schweller (2010), "The key question is whether the rising power views the protection and promotion of its essential values as dependent on fundamental changes in the existing international order or whether it is merely dissatisfied with its prestige and portions of the status quo” (p.29). In other words, nothing about the nation's idiosyncratic factors is considered in the analysis of the challenger's driving role.

To figure out which challengers are more likely to drive the competition into the spiral conflict, the primary task is to distinguish the different factors on the unit’s characteristics like political regimes, ideology, geopolitics, and strategic culture.

3.2 Structure-Level: Degree of system differentiation

The international system is in dynamic shifting. After World War II, hegemony and hierarchy are more prominent. Compared with the land-based continental system, Hegemonic order based on the maritime system greatly improved power projection ability, which
combined with the global economic and trade system and eventually enhanced hierarchical features within the system.

Two factors that influence the degree of system differentiation: nuclear deterrence and globalization (interdependence). Nuclear deterrence significantly enhances the degree of system differentiation while globalization significantly weakens it. Generally, Globalization is partly consistent with the non-proliferation policy. Deglobalization is often accompanied by increased tension between great powers and hard to reach a consensus on non-proliferation issues.

Considering the factors of unit-level and structure level, this paper constructs an analytical framework about the competition patterns of great powers (see table 1). The paper focuses on the competition mechanism of great powers in the post-war era. Therefore, the chaotic anarchy will not be discussed for it involves a discussion: why would a total war of great powers occur when there is no nuclear deterrence but do exist a hegemonic order led by Great Britain.

Marxist-Leninist theories about imperialism and war which focus on the stimulus from the society-level to explain the imperial states’ foreign policies (Lenin, 1991) and the absence of international public goods (Kindleberger, 1979) could better explain the outbreak of the total war. But the causa cancans are lack hegemonic constraints, which could counteract the effects of the heterogeneities under the condition of strict hierarchy, and effective means of dealing with the further differentiation of the system. The chaotic anarchy will not be discussed in the article due to the length limitation.

**Table 1.** Research Framework

<table>
<thead>
<tr>
<th>Heterogeneity of Units</th>
<th>Degree of system differentiation</th>
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<tbody>
<tr>
<td>Weak</td>
<td>Low</td>
</tr>
<tr>
<td>Rigid hierarchy</td>
<td>Chaotic anarchy</td>
</tr>
<tr>
<td>Strong</td>
<td>Loose hierarchy</td>
</tr>
<tr>
<td>Orderly anarchy</td>
<td>High</td>
</tr>
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</table>

3.3 Dependent Variable: Clarification on System Characteristic

In fact, the puzzle focused on anarchy and hierarchy never ceased, from Bull (1977), Strange (1988), Cox & Sinclair (1996), to Clark (1989), Lake (2010), and Womack (2016). It seems no better way of dealing with this dichotomy. Once we admit anarchy as the nature of
international politics, anarchy is just treated as the static background and explains nothing. On the other hand, the states at units’ level varied different from each other, the function (purpose or ways of behaviour) between great power and small power present fundamentally different. From this perspective, it seems necessary to deconstruct the anarchy.

The paper follows the assumptions given by Neorealism, especially the assumption of anarchy, which distinguishes the boundary between domestic and international politics. The characteristics of anarchy and hierarchy do exist in international politics. As Kenneth Waltz said, “Anarchy is taken to mean not just the absence of government but also the presence of disorder and chaos… Since world politics, although not formally organized, is not entirely without institutions and orderly procedures, students are inclined to see a lessening of anarchy when alliances form, when transactions across national borders increase, and when international agencies multiply” (p.114). Therefore, Waltz Viewed this as a confusion of concepts of structure and process. The anarchy and hierarchy talked about in this paper are more like the character of chaos and disorder, which views the characteristics as the degree to which anarchy has eased.

4. Case study
4.1 Orderly anarchy—The United States, Soviet Union, and duopoly competition

The U.S-Soviet competition is typically under the condition of orderly anarchy which includes the strong heterogeneity of units and a high degree of system differentiation. Under the logic of duopoly competition, excess profits brought by system monopoly become the primary target.

The chase of the power vacuum and alliance enhancement dominated the first 20 years of the Cold War. Huge differences in national characteristics between the United States and Soviet Union tears, which derive different states’ behaviour. Table 2 shows the details in units’ heterogeneity.

<table>
<thead>
<tr>
<th></th>
<th>Soviet Union</th>
<th>United States</th>
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</thead>
<tbody>
<tr>
<td>Regime</td>
<td>Authoritarianism</td>
<td>Democraticism</td>
</tr>
<tr>
<td>Ideology</td>
<td>Communism</td>
<td>Liberalism</td>
</tr>
<tr>
<td>Culture</td>
<td>Orthodox Slavs(Chauvinism)</td>
<td>Christian puritan(Hegemonism)</td>
</tr>
<tr>
<td>Geopolitics</td>
<td>Land-based Eurasian hegemony</td>
<td>Maritime global hegemony</td>
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</table>

At the system level, Regionalization and collectivization, rather than globalization strengthened trade protectionism against different alliances. In the first 20 years of the Cold War, risk hedging and hard balancing diffused in rival alliances and states. Nuclear deterrence, especially the mechanism of Mutually Assured Destruction (M.A.D) tends to ossify the international system.
Things began to change from the heterogeneity of units, states in the socialist camp suffered from soviet interventionism gradually broke with the Soviet Union, such as Yugoslavia, Hungary, Czechoslovakia, and China. in which some states lead the Non-Aligned Movement and neutralism which ruined the Soviet Union’s plan to win over the Third World countries in the 1970s. After the 1970s, the heterogeneity of the Soviet Union, especially its foreign policy and grand strategy have been changed, trying to engage and negotiate with the United States. According to Snyder (1993), “Apart from early Cold War, Khrushchev's missile diplomacy and Brezhnev's overextension in the Third World, Soviet grand strategy has been realistic and moderate” (p.252).

Coincidentally, the heterogeneity of the United States’ alliance is increasing, which is manifested by the rise of Japan and Western Europe. The weak of the heterogeneity improves the characteristics of the system, which became more orderly, leading to more ordered actors’ interaction. Figure 1 provides an example of how the dyadic interaction changes between the U.S. and USSR.

In addition to heterogeneity, what truly caused the ease of the Cold War was globalization and cooperation on nuclear issues. During the cold war, great powers’ nuclear deterrence is the most significant feature in international relations. There is no denying that nuclear deterrence has strengthened the bipolar system. In a sense, nuclear deterrence was a central stabilizing feature of the Cold War” (Jervis, 1989). Globalization has weakened nuclear deterrence, which is someway consistent with Non-proliferation policy. Therefore, nuclear non-proliferation become an important consensus between the United States and the Soviet Union, for the two sides finally sought cooperation and built mutual trust on security issues, which in turn promoted globalization. The easing of system differentiation and reduction of

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![Figure 1. System Differentiation and U.S-USSR Dynamic Competition Pattern](image-url)
unit heterogeneity creates a more orderly anarchy characteristic of the international system, which leads to the easing of competition between the U.S. and Soviet Union from 1970-1990.

4.2 Rigid Hierarchy—The United States, Allies, and Hegemon Coercion

Back to the heterogeneity comparison between the United States and its major allies. They differ little in regime and ideology, both are Democratism and Liberalism. Culturally, as one of the representatives of eastern culture, Japan is quite different from other allies as well as the hegemon. Geopolitically, the primary goal of Western Europe and Japan is the collective security of their respective regions, which is the regional goal of the United States, but also the keystone of its global hegemony. Table 3 shows the details of units’ heterogeneity.

Table 3. Comparison of Heterogeneity between U.S. & Its Major Allies

<table>
<thead>
<tr>
<th></th>
<th>Western Europe &amp; Japan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regime</td>
<td>Democratism</td>
<td>Democratism</td>
</tr>
<tr>
<td>Ideology</td>
<td>Liberalism</td>
<td>Liberalism</td>
</tr>
<tr>
<td>Culture</td>
<td>Christian &amp; Confusion</td>
<td>Christian puritan(Hegemonism)</td>
</tr>
<tr>
<td>Geopolitics</td>
<td>Collective security against regional power</td>
<td>Maritime global hegemony</td>
</tr>
</tbody>
</table>

Within the hegemonic order, there are four types of relationships according to the degree of heterogeneity. The first is Special Relationship with a homogeneous culture like Anglo-American Special Relationship. The second is the allies who seek security assurance and thus become a wedge to maintain the stability of hegemony like Germany and Japan. The third is the quasi-allies who adopt free-riding behavior to enhance their security like India and Australia. The fourth is the states who attached to or embedded in the hegemonic system but pursue independent security policies like Russia and China.

This classification method distinguishes the levels of heterogeneity of units but also reflects the nature of hegemony order: A hierarchical network based on hegemon affinities. The closer the relationship between a state and a hegemon, the lower degree of coercion of this state by the hegemon. Heterogeneity of units strengthens the hierarchy characteristic within the hegemonic system, which is divided according to a gradient. Figure 2 shows the hierarchy gradients in hegemonic order.
From the perspective of system differentiation variables, economic integration in the sphere of hegemonic order has been promoted by the integration of allies and collective security community. Nuclear deterrence is no longer an important factor for the states which inside the hegemonic order destabilize the order itself, for the states have handed over their security to the hegemon. In other words, globalization based on hegemonic order is promoted by the hegemon, while nuclear deterrence is neutralized or weakened by homogeneous states and security guarantees, which leads to a lower degree of system differentiation, finally intensifies the characteristics of hierarchy, forming some kind of reinforcing spiral.

The most two typical examples are the Suez Canal crisis and the Plaza Accord. What the ceasefire in the Suez Canal crisis mostly concerned was the United States’ security guarantee for British, French, and Israeli, in exchange for their withdrawal. According to Warner(1991), “What was important in the longer term was the US administration's determination to fill what is perceived as the power vacuum in the Middle East following the collapse of the Anglo-French intervention” (p.361). The Suez Canal crisis shows that, within the hegemonic order, the hegemon promises to provide security to its allies and coerce its allies to abandon their core interests is feasible due to the strict hierarchy.

Another example is the Plaza Accord. In the second term of the Reagan administration, “there was a change in policy with respect to the exchange rate, a shift from a relatively doctrinaire laissez-faire policy during 1981-84, to a more flexible policy of activism during 1985-88”(Frankel, 2015). Although coordinated depreciation has rationality and legality (unanimity principle), but reviews on the Plaza Accord remain mixed. One of them, in particular, is seen as a conspiracy theory against Japan, for the dollar depreciated sharply.
against the yen accelerated the overheating of the Japanese economy, leading to a collapse of Japan. For Japan, plenty of time is necessary to resolve its overheating economy. A lower exchange rate promotes an export-led economy while the substantial appreciation of local currency will devastate exports, which in turn lead to a flood of money into property and stocks, further worsening the economy. This partly reflects a situation in which, when allies' security is guaranteed, hegemons can, utilize economic repression, coerce their allies into making sacrifices to protect their interests.

In hegemonic order, especially in alliance, the great powers’ competition is more of submission, while coalition management is more like negotiating with domestic interest groups, with whom the coercion is often used by the dominant power to make them compromise.

4.3 Loose Hierarchy—The United States, China, and Dual track competition

After the Cold War ended, while hegemony is not yet gone, the institutions and regimes behind hegemony are still playing constructive roles, which means that the hegemonic system covers most of the international system under the condition that nuclear deterrence began to be offset by the economy. This generates two results: whether they like it or not, the rise of great powers must depend on hegemonic order, either embedded or captured due to the differences of units’ heterogeneities.

The second is the effect of nuclear deterrence on system differentiation is likely to be linear in the context of confrontation, but its marginal benefit curve is probably nonlinear in the context of cooperation. In the context of the third wave of globalization, nuclear deterrence leads to a lower degree of system differentiation. Without the rival alliance and antagonistic hegemon, Globalization based on hegemonic order, characterized by cooperation, has been further promoted, which also decreased the degree of system differentiation. Strong heterogeneity of units combined with a low degree of system differentiation, shapes a loose hierarchy characteristic of the international system structure make great powers interaction shows a process of coupling and de-coupling.

The most typical examples are the rise of emerging developing great powers. The U.S-China relations is undoubtedly the most prominent case. Back to the heterogeneity, similar to the Soviet Union, China has huge differences in regime, ideology, culture, and geopolitics compared with the United States. Table 4 illustrates the differences between U.S. and China.

In terms of heterogeneity, the biggest difference between China and the Soviet Union lies in their geopolitical goals, for the Soviet Union sought land-based Eurasian hegemony who pursued Chauvinism while China sought limited strategic goals, the comparative regional advantage in East Asia, which can be seen as defensive to some extent.
For a long time, the heterogeneity between China and the United States has always existed but China has not been regarded as a threat partly because China is not a revolutionary country which is not the state who satisfied its interests at the price of hegemonic order. “The established power attempts to satisfy the rising power’s legitimate grievances and to modify its future behaviour through economic and political rewards as well as the threat of force” (Schweller, 2010, p.37). The United States incorporated China into the hegemonic order and gave the privilege to China to establish a revised hegemonic order, which intended to alter the heterogeneity of China but it finally failed.

What makes the U.S.-China relations more like dual-track competition is that China remains independent in economy and security, coupled with the loose hierarchy of the international system, China is more flexible in the face of U.S.’ hegemonic coercion and has alternative means to hedge it. This dual-track balanced competition affects U.S.-China relations, such as the U.S.-China Anchorage meeting. Figure 3 illustrates the details of system differentiation and competition patterns' transition in the condition of Loose Hierarchy.

**Table 4.** Comparison of Heterogeneity between U.S. & China

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>United States</th>
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</thead>
<tbody>
<tr>
<td>Regime</td>
<td>Authoritarianism</td>
<td>Democratism</td>
</tr>
<tr>
<td>Ideology</td>
<td>Communism</td>
<td>Liberalism</td>
</tr>
<tr>
<td>Culture</td>
<td>Confusion (Adaptive realism)</td>
<td>Christian puritan (Hegemonism)</td>
</tr>
<tr>
<td>Geopolitics</td>
<td>Comparative regional advantage in East Asia</td>
<td>Maritime global hegemony</td>
</tr>
</tbody>
</table>

**Figure 3.** System Differentiation and U.S.-China Dynamic Competition Pattern
5. Conclusion

This paper reviewed the competition patterns between great powers in the postwar era according to the characteristic of the international system composed by the variables of units’ heterogeneity and the degree of system differentiation. The paper holds the point that ontologically, the characteristic of international politics is in dynamic change but reversible and continuous, which affects the great powers’ competition patterns.

In the case of hegemony collapse or absence, the feature of the structure will be in chaotic anarchy or orderly anarchy combining with different heterogeneities of the challenger and dominant for the latter will encourage each other to be more restrained because of their differences.

When there is a stable and a single hegemony, the feature of the structure will be in strict hierarchy inside the alliance but loose hierarchy outside the alliance but insider the hegemonic order which can be classified according to the unit’s heterogeneity. Inside the hegemonic order, the hegemom intends to use coercion while using confrontation outside the order, which the effectiveness decreases by hierarchy gradient decided by security independence. Therefore, the complexity of U.S.-China relations is deeply influenced by characteristics of the international system which is also distinguished by idiosyncratic factors. The paper intends to illustrate a causal effect in the transition of great powers’ relations but does not propose a solution to this problem. In addition, the case of chaotic anarchy is not explored and there are endogeneity problems between independent variables which need to do more research.

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References


