

The Stellar Status Symbol: True Motives for China's Manned Space Program

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The image of Chinese “taikonauts” conducting their first spacewalk, broadcast on a large screen on the front of a Beijing department store, may have appeared a quaint image to the contemporaries of the Cold War space race.¹ Even without a peer competitor or any obvious tangible benefits, and at an exorbitant price tag, China still saw value in finishing the race to put humans in space, forty years after the United States and Soviet Union. China’s pursuit of manned spaceflight is a manifestation of its quest for improved international status, a necessary prerequisite to admission into the superpower “club.” There is nothing new about a status-based explanation for the Chinese manned space program—status is often cited as one of its many motivations. However, such motivations have not been sufficiently explored in the context of existing manned space programs, nor have they been situated within more general explanations of Chinese foreign policy behavior. A norm-focused conception of international hierarchy and a brief overview of how manned spaceflight became a status marker during the Cold War will contextualize the status explanation for the Chinese manned space program. Status is the most important motivation for a manned space program in the eyes of elite political leaders, who bear greatest responsibility for China’s international standing. China has

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pursued a manned space program because it understands manned spaceflight as a status marker for the superpower status group and, desiring membership to that group, has attained one of its status markers.

THE SHENZHOU PUZZLE

The Chinese manned space program is a puzzle for two reasons. First, the utility of manned space programs is no longer clear; they do not offer commensurate, tangible returns for their costs,² which average ten times more than an unmanned program.³ Why then would states allocate their scarce resources to such an unproductive venture today, when fully aware of the meager returns through the experience of the United States and Soviet Union? Unlike the United States and Russia/Soviet Union, China has pursued manned spaceflight with full knowledge of its cost, difficulty and limited material benefits. Furthermore, China's manned space program was initiated and developed at a time when the United States was debating the continued viability of its own manned missions.⁴ China has no real peer competitor in space and so is not propelled by a space race.⁵ What then has motivated China to expend considerable resources on the space activity that delivers the least material benefits for the extra expenditure required? The second puzzle is that the Chinese manned space program is often attributed to status and prestige motivations,⁶ yet the analysts who do so offer no objective basis for assessing or contextualizing these motivations.

If we conceive the international system as hierarchical,⁷ superpowers, as members of the status group at the apex of that hierarchy, are able to set the values upon which the status of other states is determined.⁸ Superpowers also regulate admission into their own ranks on the basis of the same values.⁹ The requirements for superpower status are currently set by the only member of the superpower group, the United States. Status in the international hierarchy depends on two parallel factors: doing the right thing—an actual commitment to the values dictated by the super-

powers; and being seen to do the right thing—showing commitment to those values, not because they are actually adhered to but because they are a means to an end (improved international status).¹⁰ The admission requirements for the superpower status group are thus far more sophisticated than hard military power and economic might, the traditional indices of a great power or superpower identified by scholars.¹¹ In contemporary international relations, to be a superpower, one must be a “spacefaring” nation, and a manned spaceflight program is an integral component of “space power.”¹² Manned space programs are therefore superpower status markers. This value and norm-focused conception of hierarchy makes the idea of status, as applied to the Chinese manned space program, clearer by slotting it into existing international relations theory.

Status is not the sole explanation for China's manned spaceflight program; rather it is a crucial factor in elite political support for the project. A successful launch of a manned spacecraft requires the culmination of a broad coalition of interests, in-

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cluding support from the military, the scientific and engineering establishments and political leaders, all of whom receive payoffs tailored to their own interests.¹³ These special interests are important in setting space policy, however, given the scale and cost of the project, high-level political support is the crucial factor in its realization. Hence manned spaceflight must be framed as furthering the national interest if it is to receive political support at the highest level.¹⁴ The initiation of the Chinese manned space program, Project 921, in 1992 and Shenzhou V, its first manned mission, demonstrate this process.

FIVE ALTERNATIVE EXPLANATIONS OF THE SHENZHOU PROGRAM

Scholars have put forward five different reasons for the Chinese manned space program—military benefit, tangible domestic benefit, national pride, “competitive” status and “aspirational” status—though they recognize that no single reason adequately explains it.¹⁵ All of these reasons are necessary to build the requisite coalition of interests for a manned space program, but not all are equally important for attracting political leaders into that coalition. There is no necessity for states to have manned space programs, and they require political justifications to rationalize the costs.¹⁶ Elite support for manned spaceflight, seen as in the national interest, depends upon the delivery of unique and specific benefits that other programs competing for that support (and the resources that follow) cannot provide. Status is the only unique and specific international benefit that China attains from manned spaceflight and thus is the most important factor in the initiation and continuation of support from the Chinese president, premier and Politburo.

Many scholars have focused on the military component of the Chinese space program.¹⁷ The shadow of such analysis is often cast over the whole space program, its manned component included, because its daily affairs are administered by the People’s Liberation Army (PLA). Indirect military benefits from the manned space program are widely recognized.¹⁸ However, despite a number of advances in technology, management, infrastructure and expertise that benefit the military, “manned spaceflight is likely the least efficient, most ineffective method for developing [military] hardware.”¹⁹ The Cold War superpowers were unable to find any military advantage accruing from manned, as opposed to unmanned, spaceflight. Hence there are no known unique benefits that a manned program could deliver. Nor was Shenzhou V a demonstration of new dual-use capabilities, as Sputnik was for the Soviet Union.²⁰ In any case, separate military space programs exist for the PLA to exploit space technology for military purposes.²¹ Elite support for the program in pursuit of unique military benefits is the least plausible explanation.

The tangible benefits of a manned space program are often cited as a reason for the Shenzhou program. The United States has demonstrated the scientific, technological, educational and commercial returns of the heavy investment in space technology required for a manned space program. Likewise, the Shenzhou program has

helped China develop highly skilled scientific and technical cadres, increased employment and inspired young people to pursue scientific and technical careers.²² China's 2000 Space White Paper clearly states that space plays a role in China's national development strategy.²³ The high reliability of launch services required for manned spaceflight may improve confidence in Chinese commercial launch services.²⁴ With the exception of launch reliability, however, it is questionable whether these benefits are the result of the manned space program specifically, or simply the higher level of investment in space technology. Perhaps indicative of the elite leadership's recognition of the lack of tangible economic benefits is Li Peng's comment during discussions as to whether the program should be approved that a manned space program was "necessary, if not necessarily wise".²⁵

Manned spaceflight may also create a "focal point for national pride" among Chinese people that in turn bolsters the legitimacy of the Chinese Communist Party (CCP).²⁶ National pride is a pertinent explanation for contemporary decisions of the Chinese government, as nationalism has replaced communism as the legitimating ideology of the CCP.²⁷ The initiation of the Shenzhou program may have been conceived of as an element in the rebuilding of Chinese collective self-esteem after the Tiananmen Square massacre,²⁸ a more plausible national pride argument than building support for President Hu Jintao and his 2003 domestic reform package,²⁹ which ignores the long and secret gestation period of the program.³⁰ The long-term cultivation of national pride is likely an important factor in high-level political support and is a benefit that manned spaceflight is uniquely placed to deliver. Yet its benefits are domestic rather than international.

Some argue that China's manned space program indicates where China sees itself in the international hierarchy,³¹ while others have framed a status argument in terms of what actual status benefits China has accrued from it.³² Yet this ignores the precise nature of the status benefits sought by Chinese leaders in pursuing a manned space program: a better position vis-à-vis other nations in a competitive hierarchy or fulfilling a normative commitment to space exploration?

"For China, success [in manned spaceflight] matches up with its heightened view of its deserved international status".³³ This "competitive status" reason links the prestige and status explanations advanced by some scholars³⁴ with China's broader foreign policy goal of attaining great power status.³⁵ Though the secretive and long-term nature of the manned space program means that status improvement must be an enduring and incremental goal, manned spaceflight is uniquely placed to be able to deliver such benefits because it is a status marker for the superpower group to which China seeks admission. The competitive status explanation includes the argument that China considers itself as deserving of a seat at the table of major space-faring nations, having lost its seat at the table of scientifically and technologically advanced nations during the 19th century. A manned space program is China's way of expressing its entitlement to that seat to other states.³⁶

An “aspirational status” explanation argues that China may be demonstrating a commitment to human progress, scientific and technological advancement, exploration, global leadership and/or strength through its manned space program. Yet unless the Chinese are planning to achieve “firsts” in the course of their manned space program in the future, a commitment to human progress and global leadership would be difficult for it to display. “China has not ... sent a man into space because Jiang Zemin is a space visionary.”³⁷ It is likely, however, that China is seeking to display its scientific and technological advancement and strength in a non-military manner:³⁸ in the words of Lewis and Kulacki, “[c]ontemporary Chinese leaders are invested in space, human spaceflight in particular, because it is the ultimate expression of what being a scientifically and technologically advanced nation means.”³⁹

Of these five possible explanations for elite support of the Chinese manned space program, tangible military and domestic benefits are the least compelling, as manned spaceflight delivers no unique additional benefits for its significant additional cost in comparison to an unmanned program. Competitive status and aspirational status are both plausible explanations, provided that an aspirational status explanation pertains to China’s commitment to scientific and technological development rather than global leadership through space “firsts.” National pride is also a convincing explanation, but it is not isolated from status. National pride results not only from Chinese achievements in space, but also the positive ramifications of such achievements for China’s international reputation. Aspirational and competitive status are both likely explanations and are inextricably linked. This is due to the fact that China’s belief in the value of scientific and technological development remains strongly connected with its desire to catch up with Western states.⁴⁰ Nevertheless, competitive status is the most compelling of the five explanations. Not only does manned spaceflight deliver unique benefits for China’s competitive status, but the pursuit of such competitive status gains are also consistent with the wider trajectory of Chinese international behavior.

Considering the status explanation within the wider context of Chinese foreign policy will provide additional evidence that the reasoning behind elite support for Project 921 is the perception that manned spaceflight is a superpower status marker.

THE SUPERPOWER STATUS MARKER

Manned spaceflight was endowed with its significance as a superpower status marker during the Cold War, when the space race took center stage in the arena of US-Soviet competition. Both superpowers used every means of competition short of all-out war to prove their superiority over the other, and therefore the victory of their ideology. Nuclear arsenals and manned space activities were the most salient status markers employed in that competition. Space programs in both states began as military programs, and the first satellite launches had definite significance as military power status markers.

Space activities began to develop their own distinctive meaning as a status marker, splitting from arms competition in 1961, when both states launched their citizens into space for the first time. Yet these manned space programs had no additional military value; rather, they conferred upon the “winning” superpower the accolade of leading humanity beyond Earth. Manned space achievements gave the Soviet Union and the United States claim to a preeminent position in the superpower status group between 1961 and 1969. As US Vice President Lyndon Johnson aptly stated, “in the eyes of the world, first in space means first, period; second in space is second in everything.”⁴¹ This strategic competition argument is the most common explanation for the space race,⁴² but leaves some important questions unanswered. A sensitivity to norms and values in international relations may answer these questions, with important implications for the Chinese manned space program.

Why have so many space policy analysts, historians and politicians acknowledged the inspiration of spaceflight as being a driving factor behind its pursuit? Why did the United States and Soviet Union persist in manned space missions once the space race was over? Why did they choose to compete over manned spaceflight? Where did the superpowers get the idea that sending humans into space was appropriate in

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the first place? During the space race, manned spaceflight developed into a superpower status marker because it would have delivered no status rewards had the United States and Soviet Union not shared the values that it symbolized. It was capable of delivering the sort of victory that an arms race, with its lingering possibility of annihilation, never could: “certainly Apollo was a cold war initiative; it was a surrogate for war ... [but] at the same time, spaceflight conjured the best in the human spirit.”⁴³ Superpower agreement as to the importance of manned space achievements mapped back to their central goals of displaying commitment to strength, human progress, global leadership, and science and technology.

With the end of the space race in 1969, manned spaceflight ceased to be the preeminent status marker of the superpower status group but continued to serve as one of many superpower status markers for the remainder of the Cold War and into the post-Cold War era. Unless manned spaceflight were able to elevate one’s status in the international hierarchy, other states would not have initiated or continued manned space activities.⁴⁴ The continuation of manned space programs worldwide shows that it has clearly maintained its value. In the wake of the Cold War, both the United States and Russia have retained a manned presence in space at considerable cost. Both are involved in the American-led International Space Station project in collaboration with Japan, Canada and the European Space Agency. Europe, Japan and India have publicized their intentions to develop independent manned spaceflight capabilities. They have been “infected with the virus of manned spaceflight,”⁴⁵ indicating the demonstration effect of the two Cold War superpowers’ behavior. Despite this,

the only other manned space program to come to fruition is that of China.

The continued pursuit of manned space flight at a time when other countries abandoned similar projects raises questions about the extent of China's aspirations. Does it seek to be a great power, or a superpower on par with the United States? As Chinese official policy describes China as a great power,⁴⁶ why has China sought a superpower status marker? Two possible reasons exist for this identity and status marker mismatch. When China initiated its manned space program in 1992, and as Cold War bipolarity disintegrated, Chinese leaders anticipated a future "multipolar" order, consisting of China, Japan, Europe, Russia and the United States,⁴⁷ in which there were no superpowers. Had this eventuated, manned spaceflight would have been a great power status marker. In the early 1990s, Europe and Japan both had plans to develop independent manned spaceflight capabilities,⁴⁸ leaving China as the only great power in this future multipolar order without a manned program of its own. More recently, Chinese leaders have pushed their multipolar projections further into the future, moving from a multipolarization (*duojihua*) discourse, to a tacit recognition of American dominance: "one superpower, many major powers" (*yichao duoqiang*).⁴⁹ Yet China persisted with manned spaceflight even when European and Japanese manned space programs failed to materialize. China's continued commitment to manned spaceflight could be its way of catching up with its great power peers, as it lacks the wealth and democratic status markers held by Japan and Europe, while Russia has more military and space status markers than China. Once initiated, other reasons and vested interests in the Chinese manned space program could have provided the momentum to push the project through to completion, despite China's peer competitors' canceling of their programs. This does not, however, explain the fact that China has completed another two manned missions since.

The other possibility is that China's conception of its future status has been elevated to that of a superpower. Two things are distinctive about Chinese perceptions of status—the first is its emphasis upon quantitative, objective indicators of status,⁵⁰ and second is a definite regard for the future, as well as present, configuration of international hierarchy.⁵¹ It is possibly this regard for future status that has motivated China to continue to pursue manned spaceflight. In the view of a Chinese analyst, China has achieved great power status and is on the way to achieving superpower status.⁵² The fact that it sees itself as a prospective superpower may be sufficient motivation for presently acquiring superpower status markers in preparation for the future.

LEARNING THE VALUE OF MANNED SPACEFLIGHT

The status explanation is not plausible unless it can first be shown that China did indeed learn the value of manned spaceflight from the Cold War space race and, secondly, it can account for why elite support for manned spaceflight was forthcoming in 1992. These two points will be assisted by the methods and results of an increas-

ing number of studies that focus on China's socialization into international institutions and Chinese identity, using social constructivist approaches to international relations in order to understand recent changes in its foreign policy behavior.⁵³ According to these studies, China has shown evidence of socialization⁵⁴ through international institutions and the adoption of a responsible great power discourse has led China to redefine its interests in line with international norms.⁵⁵ These conclusions are consistent with China learning the value of manned spaceflight from the Cold War superpowers and its leaders considering the development of a Chinese manned space program appropriate, given its current and desired position in the international hierarchy. China's special sensitivity to image and status concerns in the present international system have been noted as incidents of its socialization.⁵⁶

Chinese knowledge of the manned spaceflight status marker may be inferred from the extent of its integration into the international system and therefore exposure to such shared understandings among nations about the value of manned spaceflight. China's desire to join the top status group and understanding of what is required of it in order to earn that status can be inferred from its identity discourses and corresponding behavior. The connection between China's status aspirations and its manned space program may be inferred from the concurrent adoption of status-related identity discourses and the initiation of the manned space program. The causal links drawn from the steps above are also supported by evidence of the arguments made to Chinese leaders by advocates of the manned space program.

China's observation of American and Soviet manned space missions, "the demonstration effect",⁵⁷ is the most likely source from which the Chinese state learned the idea of manned spaceflight. Its earliest manned space project, Project 714, commenced in 1965, shortly after Yuri Gagarin's flight in

China persisted even when other countries' programs failed to materialize.

1961. However the project ground to a halt in 1972, when Cultural Revolution politics caught up with the space program. The demonstration effect failed to have its full effect at this early stage because Chinese leaders rejected the Soviet-American dominated competitive hierarchy, robbing the project of a strategic rationale. Aspirational status gains were not compelling enough to justify the costs of manned spaceflight. The Chinese leadership valued science and technology as an expression of national strength and an instrument of independence, and therefore accorded both superpowers high aspirational status, taking its "cues from those countries seen as technical leaders."⁵⁸ Nevertheless aspirational status gains were insufficient to frame the project as in the national interest.

The reforms initiated by Deng Xiaoping between 1976 and 1992 changed the Chinese approach to the competitive hierarchy. In adopting a status quo orientation, China signaled its acceptance of the superpower-dominated system. It doubled its membership in intergovernmental organizations between 1977 and 1992, and improved relations with the United States and Soviet Union. Chinese official foreign

policy discourse has shifted over time, from revolutionary in nature during the 1970s to developmental and multilateral in the 1980s. The late 1980s saw an increased emphasis on the protection of sovereignty in the wake of the Tiananmen Square massacre in 1989, later shifting to a more global and multilateral stance in the 1990s.⁵⁹ The audience of China's foreign policy behavior has also shifted, from the revolutionary Third World to the status quo international society.⁶⁰ China's increasing status quo orientation is, in essence, China's adoption of a shared identity with the rest of the international community. This includes acceptance of the structure of the international hierarchy, allowing China to value high status within that hierarchy. Whether or not China is persuaded of the values in the aspirational hierarchy, it acknowledges that its status depends upon its demonstrated commitment to the values that order the hierarchy. Acceptance of this structure is essential if China is to use manned spaceflight strategically to improve its status. Chinese socialization into the existing international hierarchy completed its learning of both the aspirational and competitive status benefits of manned spaceflight.

CHINA'S GREAT POWER IDENTITY

China has acquired a great power identity that requires it to behave like a great power by accumulating status markers. The adoption of this identity provided China with the requisite strategic rationale to initiate a manned space program, transforming manned spaceflight into an appropriate pursuit for both competitive and aspirational status reasons. China's great power identity reflects how it sees its place in the world, and draws on both popular and elite desires within China and international learning in order to determine its content.

China has previously articulated its great power identity as an entitlement, understanding great power status as due respect from other nations. Respect is commanded by virtue of a Chinese nationalistic belief that China should regain its status as a great nation, lost since the Opium Wars began in 1839.⁶¹ This sense of entitlement and victimization serves as a prism through which Chinese people perceived international affairs.⁶² This aspect of Chinese great power identity is infused with a sense of victimization that does not resonate with the present aspirational hierarchy and the shared understanding of great power status among other states. It dictates a limited role for great powers to perform in order to attain their status: the accumulation of status markers representing national strength.⁶³ The great-power-as-entitlement discourse demands a display of strength as justification of Chinese equality, of which the Chinese manned space program is a likely manifestation.

Since the late 1990s, however, Chinese great power identity has been significantly modified by the adoption of a "responsible major power" identity discourse, a result of China's socialization into international institutions and learning of the great power concept. The addition of responsibility has shifted the focus of Chinese great power identity outward and incorporated duties and responsibilities, rather than simply entitlements and respect. The discourse is a reaction to perceptions of China

as a “spoiler” of the international order, and involves compliance with international institutions and sharing the burden of solving international problems.⁶⁴ It is a further embrace of international society identity and “a basic acknowledgement that many of the extant rules and norms are not antithetical to China’s interests.”⁶⁵ The concept of China’s “peaceful rise,” official policy between 2003 and 2005 and derived from this responsible power identity, recognizes the international values of peace, international order and cooperation.⁶⁶ China’s great-power-as-responsibility discourse indicates an acceptance of many of the values that determine the aspirational status of states, whether China has actually adopted those values or simply uses them instrumentally to improve its competitive status. The shift from entitlement to responsibility has brought the content of Chinese great power identity into line with internationally accepted definitions of a great power.

In the absence of the responsibility discourse in the early 1990s, China’s initiation of its manned space program was most likely motivated by an attempt to justify its great power status through the accumulation of status markers that display strength, in line with its understanding of great power status as an entitlement. Since then, however, China has been further socialized into the international hierarchy and become more accepting of its values. It is likely the Shenzhou launches are now intended to display a commitment not only to China’s strength, but also to science and technology and, perhaps in the future, to human progress and global leadership. China’s manned space program status marker has been capable of responding to the changing content of its great power identity and resulting changes in its foreign policy behavior because the status marker displays a commitment to multiple international values.

A GREAT POWER ON EARTH, AS WELL AS IN SPACE

If the Shenzhou program is a great power status marker that China has acquired in order to play the role of a great power, there should be other instances of great power role performance in Chinese foreign policy behavior during the past two decades, situating the manned space program within a broader trend in Chinese foreign policy behavior.

China has recently accumulated a number of such great power status markers. Its behavior over the past two decades has become increasingly consistent with values and expectations of the US-led international community. During the 1990s, China went from a vocal opponent of UN peacekeeping operations to a participant.⁶⁷ It has become an active institution builder, playing an instrumental role in the creation of the Shanghai Cooperation Organization in 2001, the thickening of East Asian institutionalism through the ASEAN Plus Three and ASEAN Regional Forum mechanisms, as well as initiating the Forum on China-Africa Cooperation in 2006.⁶⁸ In security affairs, it made the most significant sacrifices of all nuclear powers in terms of arsenal modernization by signing the Comprehensive Nuclear Test Ban Treaty in 1996.⁶⁹ China convened the Six-Party Talks in 2003 and is presently try-

ing to rekindle the talks in the wake of North Korean nuclear and missile tests.⁷⁰ This responsible and activist international behavior is, in effect, the accumulation of status markers of cooperative behavior, sharing the burden of solving international problems, upholding international order and a commitment to the rule of law. In the meantime, China continues to accumulate the typical great power status markers of wealth and military power through economic growth and an extensive military modernization program. China has also attained other great power status markers, such as hosting the 2008 Olympic Games and its concerted effort to top the medal tally.⁷¹ Scholars and decision-makers alike have connected the significance of the manned space program and the Olympics,⁷² especially with the Shenzhou VII mission taking place immediately following the 2008 Paralympic Games.⁷³

This status explanation of the Chinese manned space program has important implications for understanding both space programs more generally and other aspects of Chinese behavior. Exposing the unique attributes of manned spaceflight that attract elite political support suggests a solution to the puzzle of the Chinese manned space program that fits it within the broader trajectory of contemporary Chinese foreign policy. Space programs in Iran, India and both Koreas, for example, could perhaps also be better understood through the status prism.

A more nuanced understanding of other aspects of Chinese behavior, even those traditionally perceived as motivated purely by military advantage, could be gained by examining the status significance of these activities and capabilities.⁷⁴ The acquisition of a blue-water navy, aircraft carriers and anti-satellite capability may also serve as status markers for states wishing to assert their great power or superpower status, the same reasons for their development of a manned space program. Because superpowers or great powers possess these capabilities, other states associate them with the high status of those states. In this manner, military capabilities may also become status markers. Political leaders may approve their development or acquisition for defense or status reasons, or both, depending on how they define the national interest. As the status rewards of developing nuclear weapons have been cited as a motivation for their development,⁷⁵ and it has been suggested that a modern military is a status marker for a nation-state,⁷⁶ status motivations rather than military calculations may be driving elite decision making on defense acquisitions. It should not be a foregone conclusion that dual-use capabilities such as space programs and even defense capabilities are acquired for purely or even primarily military motivations—elite political support may be just as forthcoming in pursuit of higher status. ☞

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NOTES

¹ David Barboza, "Chinese Astronaut Takes Nation's First Spacewalk," *New York Times*, Sept. 27, 2008, <<http://www.nytimes.com/2008/09/28/world/asia/28china.html>>.

² See Cheng, Dean (2003) "China's Space Capabilities: Thoughts After Shenzhou-V," conference proceedings, China's Great Leap Upward: Post Launch Assessment and Implications for the United States, Center for Strategic and International Studies, Washington, D.C., Oct. 16, 2003, available online <http://www.csis.org/media/csis/events/031016_cheng.pdf> (accessed Sept. 1, 2008); Stephan J. Dubner, "Is Space Exploration Worth the Cost? A Freakonomics Quorum," *New York Times Online Blog*, <<http://freakonomics.blogs.nytimes.com/2008/01/11/is-space-exploration-worth-the-cost-a-freakonomics-quorum/>>, (Accessed Oct. 3 2008); Roger Handberg and Zhen Li, *Chinese Space Policy: a Study in Domestic and International Politics* (New York: Routledge, 2007).; Joan Johnson-Freese, "Space Wei Qi: the Launch of Shenzhou V," *Naval War College Review* (2004) Vol. 57 Issue 2, pp. 121-145; Joan Johnson-Freese, "China's Space Program: Capabilities and Intent," Testimony before the US-China Economic and Security Review Commission, Sept. 15, 2005: *China's Military Modernization and Cross-Strait Balance*.; Joan Johnson-Freese, *Space as a Strategic Asset* (New York: Columbia University Press, 2007).

³ Johnson-Freese, 2004, p. 26.

⁴ Jacqui Goddard, "Manned space flight is 'over-ambitious and no longer viable'" *The Sunday Times*, Sept. 10, 2009, <<http://www.timesonline.co.uk/tol/news/science/space/article6828297.ece>>.

⁵ Both American and Russian capabilities far exceed those of the Chinese, while the capabilities of newly emerging space faring nations—India, South Korea, Iran and Brazil—lag far behind.

⁶ Prestige and high status are closely related concepts, but I focus on status because prestige omits consideration of the rules, institutions, norms and processes needed to define prestigious behavior and characteristics. Status "suggests a hierarchy with clearly defined positions and an institution that set it up. Instead of looking to others' attitudes as with prestige, with status each party looks to the rules and decisions of the organization." (Barry O'Neill, *Honor, Symbols and War*, (Ann Arbor, Mich.: University of Michigan Press 1999, p. 194)) Prestige is the collective recognition that a group member is admired and gains influence for it (O'Neill, 1999, p. 193).

⁷ While some international relations scholars deny the hierarchical nature of international relations (Kenneth Waltz, *Theory of International Politics* (New York: McGraw Hill, 1979: 88), acceptance of some form of international hierarchy is widely recognized, especially by realists. See Yong Deng, *China's Struggle for Status: The Realignment of International Relations* (New York: Cambridge University Press, 2008); Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press 1981, p. 31; David Kang, "Hierarchy and Stability in Asian International Relations," in G. John Ikenberry and Michael Mastanduno (eds), *International Relations Theory and the Asia-Pacific* (New York: Columbia University Press, 2003), pp. 163-190; David A. Lake, "Escape from the State of Nature: Authority and Hierarchy in World Politics," *International Security* (2007) Vol. 32 Issue 1, pp. 47-79; A.F.K. Organski, *World Politics* (2nd ed) (New York: Alfred A. Knopf, 1968); Stephen Walt, "Alliance Formation and the Balance of World Power," *International Security*, (1985) Vol. 9 Issue 4, pp. 3-43; William C. Wohlforth, "Realism and the End of the Cold War," *International Security* (1994/5) Vol. 19 Issue 3, pp. 91-129; William C. Wohlforth, Richard Little, Stuart J. Kaufman, David Kang, Charles A. Jones, Victoria Tin-Bor Hui, Arthur Eckstein, Daniel Deudney and William L. Brenner "Testing Balance of Power Theory in World History," *European Journal of International Relations* (2007) Vol. 13 Issue 2, pp. 155-185.

⁸ This norm-setting role of superpowers (or great powers where superpowers did not exist) is recognised by Barry Buzan, *The United States and the Great Powers: World Politics in the Twenty-First Century* (Malden: Polity Press 2004), pp. 69; Benjamin O. Fordham and Victor Asal, "Billiard Balls or Snowflakes? Major Power Prestige and the International Diffusion of Institutions and

Practices," *International Studies Quarterly* (2007) Vol. 51 Issue 1: 32-3 Gilpin, 1981, pp. 30, 34; David A. Lake, "Escape from the State of Nature: Authority and Hierarchy in World Politics," *International Security* (2007) Vol. 32 Issue 1, pp. 200, 202.

⁹ Bull, 1977; Buzan, 2004; Jack S. Levy, *War in the Modern Great Power System, 1495-1975* (Lexington: University Press of Kentucky, 1983).

¹⁰ These two factors correspond with the microprocesses of socialisation – social influence and persuasion – identified in the context of international organisations in: Alastair Iain Johnston, *Social States: China in International Institutions 1980-2000* (Princeton, N.J.: Princeton University Press, 2008).

¹¹ See, for example, Buzan, 2004; Gilpin, 1981; Robert Jervis, "Theories of War in an Era of Leading-Power Peace, Presidential Address, American Political Science Association, 2001," *American Political Science Review* (2002) Vol. 91 Issue 1, pp. 1-14; Levy, 1983; John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W. W. Norton and Company, 2001); Waltz, 1979.

¹² See Andrew S. Erickson, "Great Power. Aerospace Development: China's Quest for the Highest High Ground," PhD dissertation, Department of Politics, Princeton University (Princeton, N.J., 2006), p. 12; Peter L. Hayes and Charles D. Lutes (2007) 'Towards A Theory of Spacepower' *Space Policy* 23, p. 206.

¹³ Veron Van Dyke, *Pride and Power: the Rationale of the Space Program* (Urbana, Il: University of Illinois Press, 1964), p. 165, see also Stephen Flank, "Exploding the Black Box: The Historical Sociology of Nuclear Proliferation," *Security Studies* (1993/4) Vol. 3 Issue 2, pp. 259-294.

¹⁴ See James Harford, *Korolev: How One Man Masterminded the Soviet Drive to Beat America to the Moon* (New York: John Wiley & Sons, 1997), pp. 235-6; Roger D. Launius and Howard E. McCurdy, "Epilogue: Beyond NASA Exceptionalism," in Roger D. Launius and Howard E. McCurdy (eds) *Spaceflight and the Myth of Presidential Leadership* (Chicago, Il: University of Illinois Press, 1997), p. 243

¹⁵ See Johnson-Freese, 2004.

¹⁶ Handberg and Li 2007, p. 47.

¹⁷ See, for example, Bao Shixiu, "Clearing up a Misunderstanding," *Survival* (2008) Vol. 50 Issue 1, pp. 176-7; Eric Hagt, "Mirror-Imaging and Worst-Case Scenarios," *Survival* (2008) Vol. 50 Issue 1: 164-170.; Michael Krepon, "Opening Pandora's Box," *Survival* (2008) Vol. 50 Issue 1, pp. 157-163; Pavel Podvig and Hui Zhang, *Russian and Chinese Responses to US Military Plans in Space* (Cambridge, Mass.: American Academy of Arts and Sciences, 2008); Stacey Solomone, "China's Space Program: the Great Leap Upward," *Journal of Contemporary China* (2006) Vol. 15 Issue 47, pp. 311-327; Ashley J. Tellis, "China's Military Space Strategy," *Survival* (2007) Vol. 49 Issue 3, pp. 41-72.

¹⁸ Johnson-Freese, 2004, pp. 129-30; 2007, pp. 224-5

¹⁹ Johnson-Freese, 2005, p. 5; see also Dean Cheng, "China's Space Capabilities: Thoughts After Shenzhou-V," conference proceedings, *China's Great Leap Upward: Post Launch Assessment and Implications for the United States*, Center for Strategic and International Studies, Washington, D.C., Oct. 16, 2003, available online http://www.csis.org/media/csis/events/031016_cheng.pdf (accessed Sept. 1, 2008); Joan Johnson-Freese, *Heavenly Ambitions: America's Quest to Dominate Space* (Philadelphia: University of Pennsylvania Press, 2009), p. 12.

²⁰ See Sun Dangen, "Shenzhou and Dreams of Space," *China Security* (2006) Issue 2, p. 61.

²¹ See Solomone, 2006; Tellis, 2007.

²² Johnson-Freese, 2004, p. 127.

²³ Information Office of the State Council, *China's Space Activities: a White Paper* (Beijing: Information Office of the State Council, 2002).

²⁴ Cheng, 2003, p. 14.

²⁵ Quoted in Gregory Kulacki and Jeffrey G. Lewis, *A Place for One's Mat: China's Space Program, 1956-2003* American Academy of Arts & Sciences (2009), p. 31.

²⁶ Johnson-Freese, 2004, p. 124. The need for the CCP to stimulate national pride has been attributed to its poor legitimacy: Susan L. Shirk, *China: Fragile Superpower* (New York: Oxford University Press, 2007), see contra Bruce Gilley, "States and Legitimacy: The Politics of Moral Authority," PhD dissertation, Department of Politics, Princeton University (Princeton, N.J., 2007). who argues that CCP legitimacy is quite healthy when compared with other regimes.

²⁷ See Joseph Fewsmith and Stanley Rosen, "The Domestic Context of Chinese Foreign Policy: Does Public Opinion Matter?" in David M. Lampton (ed) *The Making of Chinese Foreign and Security Policy* (Stanford, Calif.: Stanford University Press, 2001), pp. 151-187

²⁸ Johnson-Freese, 2004, p. 124.

²⁹ See "China's Great Leap Upward," *The Economist* October 16, 2003, available online at http://www.economist.com/world/asia/displaystory.cfm?story_id=E1_NTQNGTD (accessed Oct. 16, 2003).

³⁰ Kulacki and Lewis, 2009, p. 31.

³¹ Cheng, 2003, pp. 13-4; Handberg and Li, 2007, p. 1.

³² Johnson-Freese, 2004, pp. 126, 136.

³³ Handberg and Li, 2007, pp. 129.

³⁴ See Cheng, 2003, p. 13; Johnson-Freese, 2004, p. 126.

³⁵ Samuel S. Kim, "China as a Great Power," *Current History* (1997) Vol. 96 Issue 611, pp. 246-251; Gilbert Rozman, "China's Quest for Great Power Identity," *Orbis* (1999) Vol. 43 Issue 3, pp. 383-403; Yan Xuetong, "The Rise of China in Chinese Eyes," *Journal of Contemporary China* (2000) Vol. 10 Issue 26, pp. 33-39.

³⁶ Kulacki and Lewis, 2009, p. 30.

³⁷ Johnson-Freese, 2004, p. 124.

³⁸ See Wendy Frieman, "International Science and Technology and Chinese Foreign Policy," in Thomas W. Robinson and David Shambaugh (eds) *Chinese Foreign Policy: Theory and Practice* (Oxford: Clarendon, 1994), pp. 158-103

³⁹ Kulacki and Lewis, 2009, p. 30.

⁴⁰ Kulacki and Lewis, in explaining China's space program through the notion of "a place for one's mat" among major spacefaring countries, argue that "the founding myth of modern China is that the Chinese people lost that place when they fell behind the West. The imagined cause of this loss is China's failure to embrace science and develop technology." Lewis and Kulacki, 2009: p. 30. For more on this 'founding myth' in the early 20th century, see Jonathan Spence *The Search for Modern China* (New York: W. W. Norton & Company: 1990), p. 243.

⁴¹ Quoted in Walter A. McDougall, *The Heavens and the Earth: A Political History of the Space Age* (Baltimore, Md.: John Hopkins University Press, 1985), p. 320.

⁴² See, for example, McDougall, 1985; Johnson-Freese, 2007.

⁴³ Launius, 2007, p. 142.

⁴⁴ Johnson-Freese, 2004, p. 133.

⁴⁵ Roger Handberg and Joan Johnson-Freese, *The Prestige Trap* (Dubuque, Iowa: Kendall/Hunt Publishing Company, 1994), p. 223. On the Japanese and European programs, see Handberg and Johnson-Freese (1994); on the Indian program, see K.S. Jayaraman, "India's Space Agency Proposes Manned Spaceflight Program," *Space News*, Nov. 10, 2006, available online at http://www.space.com/news/061110_india_mannedspace.html (accessed Jan. 8, 2008).

⁴⁶ See, for example, Zheng Bijian (2005) "China's 'Peaceful Rise' to Great Power Status," *Foreign Affairs* 84(5), pp. 18-24. See also footnote 36 above.

⁴⁷ See Michael Pillsbury, *China Debates the Future Security Environment* (Washington, D.C.: National Defense University Press, 2000) available at <http://www.fas.org/nuke/guide/china/doctrine/pills2/index.html> (accessed Sept. 29 2008).

⁴⁸ See Handberg and Johnson-Freese, 1994; David E. Sanger, "Japan Eyes Space With Uncertainty, and Confusion," *New York Times*, June 26, 1990, available online at <http://query.nytimes.com/gst/fullpage.html?res=9C0CE1DD1138F935A15755C0A966958260&sec=&spon=&pagewanted=all> (accessed Oct. 17, 2003).

⁴⁹ See Deng, 2005, p. 57; Alastair Iain Johnston "Is China a Status Quo Power?" *International Security* (2003) Vol. 27 Issue 4, pp. 5-56.

⁵⁰ This is exemplified by the concept of Comprehensive National Power (zonghe guoli), which is part of a distinctive strategic tradition of assessing the current and future strengths of a potential adversary. A quantitative measure of comprehensive national power has been developed in recent years by the Chinese Academy of Social Sciences and Academy of Military Sciences (CASS). The formula includes 'natural resources, domestic and foreign economics, science and technology, military affairs, government and foreign affairs capability, and social development,' (Pillsbury, 2000: Ch5). Status is often simply measured on the basis of one's CNP rank (see Xinhua News Agency, "Shekeyuan Huangbo Shu: Zhongguo Zonghe Guoli Paiming Diliu Riben Diqi: Ping," [Academy of Social Sciences Report: China Ranks 6th in Comprehensive National Power, Japan 7th: Analysis] Jan. 5, 2006, available online at news.xinhuanet.com/fortune/2006-01/05/content_4012616.htm (accessed Aug. 31, 2008)).

⁵¹ See Chen Yue, *Zhongguo Guoji Diwei Fenxi* [Analysis of China's International Status] (Beijing: Contemporary World Press, 2002), pp. 43-4; Pang Zhongying, "Zai bianhua de shijie zhuiqiu Zhongguo de diwei," [Pursuing China's Status in a Changing World] *Shijie Jingji yu Zhengzhi* [*World Economics and Politics*] (2002) 1, pp. 33-38.

⁵² Chen, 2002, pp. 69, 223

⁵³ See, for example, Johnston, 2008; Kim, 1999; Margaret M. Pearson, "The Major Multilateral Economic Institutions Engage China," in Alastair Iain Johnston and Robert S. Ross (eds) *Engaging China: The Management of an Emerging Power* (New York: Routledge, 1999), pp. 207-234.

⁵⁴ For some of the limitations of socialisation in the Chinese context, see Wang Hongying, "Multilateralism in Chinese Foreign Policy: The Limits of Socialization," *Asian Survey* (2000) Vol. 40 Issue 3, pp. 475-491.

⁵⁵ See Deng, 2008; Rosemary Foot, "China and the Idea of a Responsible State," in Yongjin Zhang and Greg Austin (eds) *Power and Responsibility in Chinese Foreign Policy* (Canberra: Asia-Pacific Press, 2001), pp. 21-47. Key exceptions to Chinese socialisation include attitudes to human rights and the Taiwan Straits.

⁵⁶ See Yong Deng, "Better than Power: 'International Status' in Chinese Foreign Policy," in Yong Deng and Fei-Ling Wang (eds) *China Rising: Power and Motivation in Chinese Foreign Policy* (Lanham, Md.: Rowman and Littlefield, 2005), pp. 51-72; 2008; Johnston, 2008, p. 146; Courtney Richardson, "Explaining Variance in Chinese Peacekeeping Policy: International Image and Target Audience Concerns" Paper Presented at the International Studies Association 50th Annual Convention, New York City, May 22, 2009, available at www.allacademic.com/meta/p310954_index.html; Wang Hongying, "National Image Building and Chinese Foreign Policy," in Yong Deng and Fei-Ling Wang (eds) *China Rising: Power and Motivation in Chinese Foreign Policy* (Lanham, Md.: Rowman and Littlefield, 2005), pp. 73-102.

⁵⁷ I have borrowed this term from Fordham and Asal, 2007.

⁵⁸ Kulacki and Lewis, 2009, p. 31.

⁵⁹ Johnston, 2008, p. 207

⁶⁰ Johnston, 2008, p. 146. A good illustration of this is the change in reference to the G8 as a "rich man's club" to a "great power forum" upon President Hu's acceptance invitation to attend the G8 summit in 2003 (Deng, 2008, p. 48).

- ⁶¹ See Fewsmith and Rosen, 2000: 186.
- ⁶² Steven I. Levine, "Perception and Ideology in Chinese Foreign Policy," in Thomas W. Robinson and David Shambaugh (eds) *Chinese Foreign Policy: Theory and Practice* (Oxford: Clarendon, 1994): 43.
- ⁶³ See Kim, 1997, pp. 249-50.
- ⁶⁴ Deng, 2008, p. 47.
- ⁶⁵ Johnston, 2008, p. 148.
- ⁶⁶ Bonnie S. Glaser and Evan S. Medeiros, "The Changing Ecology of Foreign Policy-Making in China: The Ascension and Demise of the Theory of 'Peaceful Rise,'" *China Quarterly* (2007) 190, pp. 291-310; Zheng, 2005.
- ⁶⁷ See Kim, 1999, p. 53; Shogo Suzuki, "Seeking 'Legitimate' Great Power Status in Post-Cold War International Society: China's and Japan's Participation in UNPKO," *International Relations* (2008) Vol. 22 Issue 1, pp. 45-63. For a detailed analysis of the evolution of China's approach to UN peacekeeping, see International Crisis Group *China's Growing Role in UN Peacekeeping Asia Report No. 166*, Apr. 17, 2009.
- ⁶⁸ See Deng, 2008, pp. 200-44.
- ⁶⁹ Though the treaty is not yet in force: Johnston, 2008.
- ⁷⁰ Although China's strategic calculations on the Korean Peninsula still favor stability over disarmament, contrary to the Western approach to the situation: see International Crisis Group, *Shades of Red: China's Debate over North Korea Asia Report No. 179*, 2 Nov. 2009.
- ⁷¹ Xin argues that the Chinese Olympic bid was tied to a conception that China cannot be a great power unless it is also a great sporting nation (tiyun daguo). Xin Xu, "Modernizing China in the Olympic Spotlight: China's National Identity and the 2008 Beijing Olympiad," *Sociological Review* (2006) Vol. 54 Issue 2, pp. 92-3.
- ⁷² See Cheng, 2004, p. 13
- ⁷³ See "Shooting the Moon," *The Economist*, Sept. 25, 2008, available online at <http://www.economist.com/world/asia/displaystory.cfm?story_id=12305754> (accessed October 16, 2003).
- ⁷⁴ Johnson Freese alludes to this possibility in the context of Chinese counterspace capabilities: Johnson-Freese, 2009, p. 17.
- ⁷⁵ Jacques E. Hymans, *The Psychology of Nuclear Proliferation: Identity, Emotions and Foreign Policy* (New York: Cambridge University Press, 2006), p. 202; O'Neill, 2006, pp. 3-5; Scott D. Sagan, "Why do States Build Nuclear Weapons?: Three Models in Search of a Bomb," *International Security* (1996/7) Vol. 21 Issue 3, p. 79.
- ⁷⁶ Dana P. Eyre and Mark Suchman, "Status, Norms and the Proliferation of Conventional Weapons: An Institutional Theory Approach," in Peter Katzenstein (ed) *The Culture of National Security* (New York: Columbia University Press, 1996), pp. 79-113.