In chapter 5 I argued that states are intentional, corporate actors whose identities and interests are in important part determined by domestic politics rather than the international system. Within domestic politics states are still socially constructed, of course, but this is a different level of construction; relative to the international system states are self-organizing facts. This means that if we are interested in the question of how the states system works, rather than in how its elements are constructed, we will have to take the existence of states as given, just as sociologists have to take the existence of people as given to study how society works. Systemic theory cannot problematize the state all the way down,1 in short, since that would change the subject from a theory of the states system to a theory of the state. The fact that state identities and interests are at least partly exogenous to the system, in turn, satisfies the first principle of individualist approaches to systemic theory, like Neorealism and Neoliberalism. However, these theories usually make the much broader assumption that all state identities and interests are exogenous, which does not follow. The fact that state agents are not constructed by system structures all the way down does not mean they are not constructed by them to a significant extent. The per se individuality of states may be given outside the system, but the meanings or terms of that individuality are given within. Having accepted a key individualist constraint on systemic theorizing, in this chapter I show that a holist approach can still tell us a lot about the structure of international politics which would elude a pure individualism.

I assume at the outset that this structure is an anarchy, defined as

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the absence of centralized authority. Disparities of power between Great and Small Powers raise doubts about this assumption on the centralization side, and states’ acceptance of international norms raise more on the authority side. These questions highlight the limits of the “anarchy problematique” in IR scholarship, but I shall set them aside for this chapter. Anarchy poses a distinctive and important problem of order for international politics, to which a constructivist approach suggests some new solutions.

Debates about the nature of the international system are in important part about the causal powers of anarchic structures. Under this heading I address two questions in this chapter, what might be called the variation question and the construction question. The first is whether anarchy is compatible with more than one kind of structure and therefore “logic.” It is important here to distinguish between micro- and macro-level structures (chapter 4, pp. 145–157), between what Waltz calls the domains of “foreign policy” and “international politics.” Everyone agrees that micro- or interaction-level anarchic structures vary. Some are peaceful, others warlike. The US and Russia interact under anarchy, and so did the US and the Soviet Union. Few would deny that their structures of interaction differ. The real question is whether the fact of anarchy creates a tendency for all such interactions to realize a single logic at the macro-level. In the Neorealist view they do: anarchies are inherently self-help systems that tend to produce military competition, balances of power, and war. Against this I argue that anarchy can have at least three kinds of structure at the macro-level, based on what kind of roles – enemy, rival, and friend – dominate the system. Adapting language from Martin Wight and the English School, I will call these structures Hobbesian, Lockean, and Kantian, although in doing so I claim no close adherence to their views; the labels are intended merely as metaphors or stylized representations. I argue that only the Hobbesian structure is a truly self-help system, and as such there is no such thing as a “logic of anarchy.”

The other question is whether the international system constructs states. Do anarchic structures affect state identities and interests, or merely their behavior (see chapter 1)? Rationalist models assume that

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3 On the importance of distinguishing these issues see Lamborn (1997).
5 Buzan, Jones, and Little (1993).
only the behavior of states is affected by system structure, not their identities and interests. Against this I argue the holist hypothesis that the structure of international politics also has construction effects on states. I focus on causal effects in chapter 7; here I address mostly constitutive ones. If such effects exist this would have important – and given that constructivism is often associated with ease of social change, perhaps unexpected – implications for the possibility of change in international politics: actors whose interests are constituted by a structure will have a stake in it which will make it more stable than would otherwise be the case. Showing that identities and interests are socially constructed may reveal new possibilities for change, but those constructions can also be powerful sources of inertia if they are institutionalized.

Apart from its implications for change, the answer to the construction question also bears on the variation question, since if anarchic structures have no construction effects then it is more likely that anarchy does not have a single logic. Game theory teaches us that the outcomes of interaction stem from configurations of desires and beliefs, which can vary from “Harmony” all the way to “Deadlock.” If the content of these games is not constrained by anarchic structures then any claims about the logic(s) of anarchy will depend on producing behavioral convergence despite potentially infinite variation in desires and beliefs. There may be such convergence, but it is hard to show. In this light it is not surprising that Waltz hypothesizes that anarchy tends to produce “like units” (a construction hypothesis), though for good measure he also assumes that states are by nature self-regarding and security seeking. These moves eliminate much of the possible variation in interests that could undermine the idea of a single logic of anarchy. By the same token, it is not surprising that Liberals, among the key opponents of Realism, take the individualist view that state interests are determined by societal factors, and therefore highly variable, with the states system relegated to a domain of strategic interaction with no construction effects. This would force Realists to make the case for a single logic on the basis of behavioral effects alone, which the variety of domestic forms ensures will be difficult.

The choice between Realism and Liberalism is often seen as one
between “top-down” vs. “bottom-up” theorizing, between the view that international politics contains a single logic which depends in no way on its elements, and the view that the logic of anarchy is reducible entirely to its elements. In effect, we can either study structure or study agents; either anarchic structure has one logic or none at all. I defend a third possibility: (1) anarchic structures do construct their elements, but (2) these structures vary at the macro-level and can therefore have multiple logics. Anarchy as such is an empty vessel and has no intrinsic logic; anarchies only acquire logics as a function of the structure of what we put inside them. This accommodates Liberalism’s emphasis on domestic politics, but within a structural approach to the international system.

The key to this argument is conceptualizing structure in social rather than material terms. When IR scholars today use the word structure they almost always mean Waltz’s materialist definition as a distribution of capabilities. Bipolar and multipolar distributions have different dynamics at the level of foreign policy, but they do not construct states differently or generate different logics of anarchy at the macro-level. Defining structure in social terms admits those possibilities, and without any real loss of parsimony, since I believe that Waltz’s theory itself presupposes a social structure, a Lockean one (see below and chapter 3). To say that a structure is “social” is to say, following Weber, that actors take each other “into account” in choosing their actions. This process is based on actors’ ideas about the nature and roles of Self and Other, and as such social structures are “distributions of ideas” or “stocks of knowledge.”8 Some of these ideas are shared, others are private. Shared ideas make up the subset of social structure known as “culture” (on these definitions see chapter 4, pp. 140–142). In principle Hobbesian, Lockean, and Kantian structures might be constituted entirely by private ideas, but in practice they are usually constituted by shared ones. In this chapter I address the nature and effects of shared ideas only. In what follows, therefore, the structure of the international system is its “culture”9 even though in reality social structure is more than that. Following

8 The notion of societies as “stocks” of knowledge is developed by Berger and Luckmann (1966) and Turner (1988).

9 On culture at the level of the international system see Pasic (1996), Meyer, et al. (1997), and Bukovansky (1999b). The concept of culture is more commonly used with reference to unit-level factors; see Johnston (1995), Katzenstein, ed. (1996), and Weldes, et al., eds. (1999).
international politics

Mlada Bukovansky, I call this its “political” culture. Its political culture is the most fundamental fact about the structure of an international system, giving meaning to power and content to interests, and thus the thing we most need to know to explain a “small number of big and important things.”

Showing that anarchic structures are cultures does not show that they construct states. To see this it is useful to consider three reasons why actors may observe cultural norms: because they are forced to, because it is in their self-interest, and because they perceive the norms as legitimate. These explanations correspond roughly to Neorealist, Neoliberal, and Idealist theories of “the difference that norms make” in international life, and perhaps for that reason they are often seen as mutually exclusive. However, I believe it is more useful to see them as reflecting three different “degrees” to which a norm can be internalized, and thus as generating three different pathways by which the same structure can be produced – “force,” “price,” and “legitimacy.” It is an empirical question which pathway occurs in a given case. It is only with the third degree of internalization that actors are really “constructed” by culture; up to that point culture is affecting just their behavior or beliefs about the environment, not who they are or what they want. There has been relatively little work in IR on the internalization of norms and so I address all three degrees below, but since the third is the distinctively constructivist hypothesis it is there that I will concentrate.

The next section defends two assumptions of the subsequent discussion. I then examine the structure of Hobbesian, Lockean, and Kantian cultures in turn, showing how the degree to which they are internalized affects the difference that they make. As a structural analysis I say little in this chapter about questions of system process (see chapter 7). Thus, even though I show that the structure of anarchy varies with relationships between states, I do not argue here that “anarchy is what states make of it.” In conclusion I address the

13 Cf. Hasenclever, et. al. (1997). I received this volume too late to incorporate into my treatment here, but their analysis makes an excellent starting point for further discussion.
14 For exceptions see Ikenberry and Kupchan (1990), Muller (1993), Cortell and Davis (1996); cf. Wendt and Barnett (1993).
question of progress over time, suggesting that although there is no
guarantee that international time will move forward toward a Kantian
culture, at least it is unlikely to move backward.

**Structure and roles under anarchy**

The approach to structural theorizing used in this chapter is discussed
in chapter 4 and will not be reiterated here. However, it has two
implications for international theory that challenge deeply held
assumptions in IR scholarship, and so to prevent misunderstanding
some elaboration seems appropriate. The first implication is that there
is no relationship between the extent of shared ideas or culture in a
system and the extent of cooperation. Most IR scholarship assumes
that there is such a relationship. I believe there is not. Culture may
constitute conflict or cooperation. The second implication is that the
concept of “role” should be a key concept in structural theorizing
about the international system. Most IR scholarship assumes that roles
are unit-level properties with no place in structural theory. I believe
this misunderstands the nature of roles, which are properties of
structures, not agents. The culture of an international system is based
on a structure of roles. To defend these claims I begin with the
Neorealist definition of structure and its basis in a particular view of
the problem of order.

There are two problems of order in social life.15 One is getting
people to work together toward mutually beneficial ends like reduc-
ing violence or increasing trade, and for this reason it is sometimes
known as the “cooperation problem.”16 This is what political theorists
going back to Hobbes have usually meant by the problem of order,
and it justifiably has been central to IR scholars and foreign policy-
makers alike, given the difficulties of cooperation under anarchy and
potential costs of failure. There is another problem of order, however,
what might be called the “sociological” as opposed to “political”
problem, which is creating stable patterns of behavior, whether
cooperative or conflictual. Regularities are plentiful in nature, where
they are determined primarily by material forces. These matter in
society as well, but social regularities are determined primarily by
shared ideas that enable us to predict each other’s behavior.

16 For example, Axelrod (1984), Oye, ed. (1986).
Following Hobbes, scholars in the Realist tradition have tended to argue that shared ideas can only be created by centralized authority. Since in anarchy there is no such authority states must assume the worst about each other’s intentions, that others will violate norms as soon as it is in their interest to do so, which forces even peace-loving states to play power politics. Any shared ideas that emerge will be fragile and fleeting, subject to potentially violent change with changes in the distribution of power. The only shared idea that can be stable under such conditions is that “war may at any moment occur,” but for Realists this is simple prudence, not culture. In the Realist view, therefore, if anarchy displays any order in the second, sociological sense it will be because of material forces, not shared ideas, not unlike order in nature.

These Hobbesian considerations seem to underlie Waltz’s materialist definition of structure. Waltz defines structure along three dimensions: the principle according to which units are ordered, the differentiation of units and their functions, and the distribution of capabilities. In international politics the ordering principle is anarchy, for Waltz a constant, and unlike domestic politics the units are functionally undifferentiated, so this dimension drops out. This leaves the distribution of capabilities as the only variable dimension of international structure. Patterns of amity and enmity and international institutions, both of which are based on shared ideas, are seen as unit-level phenomena, presumably because in anarchy there can be no such ideas at the macro-level. Waltz does not seem to have set out specifically to be a “materialist,” but purging shared ideas from his definition of structure makes his theory reminiscent of the more “Fundamentalist,” technological determinist forms of Marxism, which try to derive relations of production from the forces.

Hedley Bull has called part of this reasoning into question. Bull pointed out that Realists are making a “domestic analogy” which assumes that shared ideas at the international level must have the same foundation – centralized authority – that they have at the domestic. If that were true then because it is anarchy, the international system could be at most a “system” (parts interacting as a whole), not a “society” (common interests and rules). Bull argued that the analogy does not hold, that at least limited forms of inter-state cooperation based on shared ideas – respecting property, keeping

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promises, and limiting violence – are possible, and as such there can be an “anarchical society” of the kind envisioned by Grotius or Locke. Neoliberals have extended this insight to the study of a whole range of cooperation in international regimes. Although neither Bull nor Neoliberals conclude that we should define the structure of the international system in social or cultural terms, this seems to be a natural implication of saying that the system is a “society.”

In contrast to Waltz, then, a reading of Bull suggests that the structure of anarchy can vary, resulting in distinct logics and tendencies. My argument in this chapter builds directly on Bull’s. Yet Bull seems to agree with Waltz on one crucial point and this is where we differ: for Bull the movement from system to society (and perhaps on to community) is a function of a growth in shared knowledge. Like Realists, Bull associates highly conflictual anarchies (“systems”) with a state of nature, in which no shared ideas exist, and more cooperative anarchies (“societies”) with the presence of shared ideas. Realists and Grotians may disagree about the prospects for the emergence of shared ideas under anarchy, but they agree that shared ideas are associated with cooperation. In effect, both sides are reducing the sociological problem of order to the political: assuming that shared ideas depend on working together toward a common end. That suggests that in the absence of cooperation whatever order exists in the international system must be due to material rather than cultural factors. On that view, the relevance of an idealist approach goes up and a materialist one goes down, as the system moves from conflict toward cooperation. This seems to lead to a natural conclusion, drawn most explicitly by Buzan, Jones, and Little, that offers the best of both theories: treat shared ideas as a distinct “sector” of the international system (the “societal” sector), where cooperation rules and an idealist analysis may be appropriate, and leave the more conflictual, economic, political, and strategic sectors to materialists.

This framing of the issue shortchanges idealists and materialists both, the former because shared ideas may constitute conflict, the latter because material forces may induce cooperation. The mistake here is thinking that “culture” (shared knowledge) is the same thing as “society” (cooperation). Shared knowledge and its various manifestations – norms, rules, etc. – are analytically neutral with respect to cooperation and conflict. As Nina Tannenwald says about norms,

\[20\] For other similarities see Dunne (1995).
norms may be “good” or “bad”; they may tell states that it is heinous to make war, or that it is glorious.\textsuperscript{21} In a recent critique of Bull, Alan James\textsuperscript{22} makes much the same argument about rules, which he points out are necessary for all but the most elementary forms of interaction. Conversely, there is nothing about the absence of shared knowledge, a world of only material forces, that necessarily implies a war of all against all. The difference between Hobbesian and Grotian worlds is not about the presence of shared ideas. Shared ideas can solve the sociological problem of order even if they do not solve the political one. The significance of this should become clear by considering figure 4,\textsuperscript{23} which summarizes the framework of this chapter.

When it is not busy trying to reduce anarchy to a single logic, as in Neorealism, IR scholarship tends to move along the diagonal from bottom left to top right, implicitly reducing the role of shared ideas to cooperation. This assumes that logics of anarchy are a function of how deeply culture is internalized. I argue this is a mistake. Hobbesian logics can be generated by deeply shared ideas, and Kantian logics by only weakly shared ones. Each logic of anarchy is \textit{multiply realizable}: the same effect can be reached through different causes.\textsuperscript{24} Which pathway realizes a given anarchy is an empirical question. All nine cells of figure 4 should be in play in international theory, not just those along the diagonal.

\textsuperscript{21} Tannenwald (1996: 48); for examples of good and bad norms see Elster (1989: 97–151).
\textsuperscript{22} James (1993).
\textsuperscript{23} I leave out of this picture the possibility that an anarchy might be based on no shared knowledge at all.
\textsuperscript{24} On multiple realizability see chapter 4 and Most and Starr (1984).
This has two important implications. The first is that the amount of conflict in a system does not bear on the relative utility of idealist and materialist theories. Conflict is no more evidence for materialism than cooperation is for idealism; it all depends on how conflict and cooperation are constituted. As someone concerned to advance a constructivist analysis of phenomena that many scholars treat as a Realist monopoly, I am most interested in the upper-left cells of figure 4, but there are equally interesting neglected possibilities for Realists in the bottom right. The second implication concerns structural change. Realist pessimism notwithstanding, it is easier to escape a Hobbesian world whose culture matters relatively little, and notwithstanding Idealist optimism, harder to create a Kantian one based on deeply shared beliefs. It is Realists who should think that cultural change is easy, not constructivists, because the more deeply shared ideas are internalized – the more they “matter” – the stickier the structure they constitute will be.

This suggests a rethinking of Waltz’s definition of structure. In order to make clear that structure contains both material and ideational elements let me begin by building on Dan Deudney to make an analogy between modes of production and “modes of destruction.”25 On the material side of the latter are “forces of destruction”: technological artifacts like spears, tanks, and ICBMs that have the ability to kill people and destroy property. These vary quantitatively, which is captured by Waltz’s “distribution of capabilities,” and qualitatively, which is reflected in the changing balance between offensive versus defensive weapons technologies and in Deudney’s26 “composition” of power. The strength of Realism lies in assessing the social possibilities of these artifacts.

As I argued in chapter 3, however, the probability that any given possibility will be realized depends on ideas and the interests they constitute. Five hundred British nuclear weapons are less threatening to the US than five North Korean ones because of the shared understandings that underpin them. What gives meaning to the forces of destruction are the “relations of destruction” in which they are embedded: the shared ideas, whether cooperative or conflictual, that structure violence between states. These ideas constitute the roles or terms of individuality through which states interact. The concept of

25 Deudney (1999); also see Mouzelis (1989) on “modes of political domination.”
“terms of individuality,” which I borrow from constructivists in social psychology,27 plays the same function in this model as “principles of differentiation” does in Waltz’s. Both concern the ways in which agents are constituted by structures. Waltz drops these principles from his theory, and with them all possibility of giving it a social dimension, because he assumes that differentiation must be functional. But functional differentiation in social life is in important part based on role differentiation, and roles may be asymmetric or symmetric. The role of “enemy,” for example, constitutes identities even though enemies are functionally equivalent. The generality of Waltz’s intuition becomes clear in Ruggie’s work on sovereignty, which combines Waltz’s language of differentiation with the language of terms of individuality to show how the meaning of sovereignty – a form of subjectivity in which differentiation is spatial rather than functional – varies historically.28 Until he dropped principles of differentiation, in other words, Waltz had an at least implicitly cultural theory of structure.

Apart from making explicit and extending that theory to role differentiation, however, I am also reversing his materialist hypothesis about the relationship between ideas and material forces. The analogy to Marxism is again helpful here. In contrast to Waltz’s “Fundamentalist” assumption which reduces relations to forces of destruction, and also in contrast to Neoliberalism’s Structural Marxist assumption that ideas are a superstructure “relatively autonomous” from but determined in the last instance by the material base (see chapter 3, pp. 136–137), in my view no necessary relationship between forces and relations of destruction – between nature and culture – can be specified a priori. In some cases material conditions are decisive, in others it will be ideas. It is my expectation that empirically we will find that ideas usually are far more important. There sometimes may be an international equivalent of a “hotel fire” that effectively eliminates a meaningful role for ideas, but in most cases it will be ideas that give meaning to material conditions rather than the other way around. Rather than follow Neorealists in focusing first on material structure, therefore, I believe that if we want to say a small number of big and important things about world politics we would do better to focus first on states’ ideas and the interests they constitute, and only then worry about who has how many guns.

27 See, for example, Turner and Oakes (1986: 239), Sampson (1988), and Shotter (1990).
Three cultures of anarchy

Shared understandings about violence vary from the general (“kill or be killed”) to the specific (use white flags to surrender). While each may be studied individually, my proposal, adapted from Bull and Wight, is that they tend to cluster into three cultures with distinct logics and tendencies, Hobbesian, Lockean, and Kantian. I shall treat these cultures as ideal types, although I believe all three have been instantiated at different times and places in international history. I do not claim that they exhaust the possible forms of anarchy, only that they are particularly salient. They may be found in regional subsystems of the international system – Buzan’s “security complexes” – or in the system as a whole. Finally, although they may be affected by cultures at the domestic and/or transnational level, the cultures of interest here are states system-centric. This means that even if states’ domestic cultures have little in common, as in Huntington’s “clash of civilizations,” the states system could still have one culture that affected the behavior of its elements.

A key aspect of any cultural form is its role structure, the configuration of subject positions that shared ideas make available to its holders. Subject positions are constituted by representations of Self and Other as particular kinds of agents related in particular ways, which in turn constitute the logics and reproduction requirements of distinct cultural systems (schools, churches, polities, and so on). The reproduction of these systems only occurs when roles are filled by real people, but since different people can fill the same position over time and realize it in different ways, roles cannot be reduced to individuals. Roles are attributes of structures, not agents. In principle these could be micro-structures, but I shall focus on roles as properties of macro-structures, as collective representations. Although in most cultures roles are functionally differentiated, anarchy makes it difficult to sustain role asymmetry until the problem of violence is mitigated, and so I propose that at the core of each kind of anarchy is just one

29 I have adapted these labels from Wight (e.g., 1991), although he used them to refer to theories (Realist, Rationalist, and Revolutionist, or, sometimes, Machiavellian, Grotian, and Kantian), while I will be using them to refer to real world structures, much as Bull (1977) used the terms “system” and “society.”
31 Huntington (1993).
32 The treatment of the concept of role below draws especially on symbolic interactionist ideas; see McCall and Simmons (1978), Stryker and Statham (1985), and Callero (1986).
33 On the concept of subject position see Doty (1996) and Weldes (1999).
34 Waltz (1979: 95–97); also see Elias (1982: 235).
subject position: in Hobbesian cultures it is “enemy,” in Lockean “rival,” and Kantian “friend.” Each involves a distinct posture or orientation of the Self toward the Other with respect to the use of violence, which can be realized in multiple ways at the micro-level. The posture of enemies is one of threatening adversaries who observe no limits in their violence toward each other; that of rivals is one of competitors who will use violence to advance their interests but refrain from killing each other; and that of friends is one of allies who do not use violence to settle their disputes and work as a team against security threats.

The proposition that structures can be analyzed in terms of roles is hardly radical. Sociologists routinely think this way about structure, and it was no less a Realist than Carl Schmitt who argued that the friend–enemy distinction was the fundamental structure of the political.35 Yet modern, structurally oriented Realists explicitly reject the incorporation of roles into structural theorizing on the grounds that roles are unit-level phenomena.36 In doing so they receive support from an unlikely, “reductionist” quarter, foreign policy role theorists, who argue that the social structure of the international system does not contain thick enough shared expectations to support roles.37 Discouraged by both sides from thinking structurally, when IR scholars talk about roles they are almost always referring to the domestically constituted beliefs of individuals or elites, i.e., unit-level properties.

The skeptics have a point. If foreign policy roles are defined as the beliefs of decision-makers or state elites then they cannot be structural phenomena in the macro sense, which is the only sense of structure that Neorealists recognize. The distribution of those beliefs is structural at what I have called the micro- or interaction-level sense, and in that capacity they constitute key ingredients in the international process, but that is precisely why Neorealists think roles are not “structural.” As I indicated above, however, this is not how roles should be understood. Roles are structural positions, not actor beliefs. To be sure, in order for actors to enact and reproduce subject positions they have to incorporate them into their identities and interests, and

35 Schmitt (1932/1976); for good introductions to this aspect of Schmitt’s work see Schwab (1987) and Sartori (1989).
in that way roles constitute unit-level properties, but role-identities are not the same thing as roles. Role-identities are subjective self-understandings; roles are the objective, collectively constituted positions that give meaning to those understandings. The former come and go as individuals take on or discard beliefs; the latter persist as long as someone fills them. Bill Clinton currently occupies the role of US President, and has taken on identities and interests that enable him to play the part, but whereas his identities and interests will presumably change when he leaves office, the position will live on. Similarly, in the nineteenth century, Great Britain played the role of “balancer” in Great Power politics, but that was a property of the social structure of the Concert of Europe, not of Great Britain. Had no state filled that role the structure might not have survived.

The structure and tendencies of anarchic systems will depend on which of our three roles – enemy, rival, and friend – dominate those systems, and states will be under corresponding pressure to internalize that role in their identities and interests. As for Holsti’s argument that shared ideas at the international level are not thick enough to support roles: if he is making the empirical claim that cultures of anarchy are never internalized deep enough to construct state interests, then he may be right (though I will argue otherwise). Like others operating along the diagonal line in figure 4, however, I suspect he is actually making a tacit assumption that shared ideas must be cooperative, which would mean that since there is not much cooperation in international politics there is no structural basis for roles. Once we recognize that culture does not imply cooperation we can see that roles belong in structural theories of world politics even if states have nothing more in common than the knowledge that they are enemies.

The Hobbesian culture

Although there is no necessary connection between a Hobbesian anarchy and Realism, it is a natural link to assume because this anarchy is a “hard case” for constructivism. Its high death rate makes it difficult for shared ideas to form, and if they do form it is still difficult to see why states would have the stake in them that is implied by the constructivist proposition that internalized ideas constitute identities and interests. Because it is a hard case and the first application of my

38 Gulick (1955).