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Making Sense of Institutional Change in China: The Cultural Dimension of Economic Growth and Modernization

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Abstract

Building on a new model of institutions proposed by Aoki and the systemic approach to economic civilizations outlined by Kuran, this paper attempts an analysis of the cultural foundations of recent Chinese economic development. I argue that the cultural impact needs to be conceived as a creative process that involves linguistic entities and other public social items in order to provide integrative meaning to economic interactions and identities to different agents involved. I focus on three phenomena that stand at the center of economic culture in China, networks, localism and modernism. I eschew the standard dualism of individualism vs. collectivism in favour of a more detailed view on the self in social relationships. The Chinese pattern of social relations, guanxi, is also a constituent of localism, i.e. a peculiar arrangement and resulting dynamics of central-local interactions in governing the economy. Localism is balanced by culturalist controls of the center, which in contemporary China builds on the worldview of modernism. Thus, economic modernization is a cultural phenomenon on its own sake. I summarize these interactions in a process analysis based on Aoki's framework.

This is the extended and penultimate version of a revised paper with the same title that is included in the Proceedings of the 16th World Congress of the International Economic Association, Bejing, China 2011 (forthcoming, Palgrave).

Key words: Aoki; culture and the economy; emics/etics; guanxi; relational collectivism; central/local government relations; culturalism; population quality; consumerism

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1 Introduction: The trouble with culture in economics

Today, cultural explanations loom large in modern economic analyses of the divergent performance of nations, past and present, often referring to central intermediating variables such as 'trust' (Greif 1994, La Porta et al. 1997, Djankov et al. 2003, Guiso et al. 2006; with reference to China: Landes 2006). However, it is difficult to distinguish neatly between historical and cultural explanations, because the notion of culture is mostly introduced without a clearly elaborated theoretical foundation (which it shares with related concepts, such as social capital, see Durlauf 2002; compare Herrmann-Pillath 2010). In particular, given fuzzy boundaries of the concept of culture, it is difficult to distinguish neatly between cultural explanations and theories about institutional legacies (Acemoglu et al. 2001, Acemoglu et al. 2002). Very often, culture appears to be a certain generalized property of certain populations that directly affects behavior and that is inherited from earlier generations via cultural transmission, and often checked via population-of-origin dummies (e.g. Fernandez and Fogli 2009 or Algan and Cahuc 2009). Most of this research is not based on a fully-fledged theory of culture, especially with reference to the relation between micro-level transmission mechanisms and aggregate phenomena, which are normally in focus when talking about 'cultures' in anthropology and sociology.

One example is the individualism/collectivism dichotomy that plays an important role in both economics and management sciences when dealing with past and contemporary economic systems (Greif 1994, Greif and Tabellini 2010, Hofstede 1991). Thus, collectivism is seen as a behavioral feature that can be also detected via survey methods or experiments, but is mainly interpreted as a summary description of a set of generating values that correlate with certain social-structural patterns, manifesting continuity from past to present times. It is straightforward to see that in this picture it is difficult to distinguish neatly between external and internal determinants of behavior, and even the concept of culture is not clearly positioned in this duality. Culture can be both a behavioral pattern and a set of values and beliefs, and it can be generated both by external conditions, such as certain institutions, and those beliefs. Obviously, the continuity of behavioral patterns could be explained by the continuity of certain institutions, without any reference to values, and the continuity of institutions could be explained by certain endogenous dynamics independent from those values, too. In this case, a cultural explanation would become redundant, relative to an historical account of institutions, unless culture would be defined as those very patterns, without internalist references. But even then the question seems legitimate which particular additional insight is achieved by introducing the concept of culture.

In this paper, I venture a cultural analysis of some aspects of the recent institutional evolution and economic performance in China. Following Kuran's recent contributions (especially Kuran 2009), I adopt a de-constructionist approach to culture. Kuran proposes to distinguish between the concepts of 'civilization' and 'culture', and treats civilizations as the larger units, compared to cultural mechanisms, and he emphasizes the complex interdependencies between different cultural mechanisms, in particular the unintended consequences of cultural behavior. This idea seems to offer a promising solution to the micro-macro gap alluded to previously, because cultural mechanisms can be still seen as micro-level phenomena, and the complementarities as the causal mechanisms that generate the macro-level phenomena. This approach concurs with my own approach to China in the past three decades of analysing cultural factors

in her development, if only the semantic oscillation between the Anglo-Saxon and the Continental-European uses of 'civilization' and 'culture' are heeded attention to (Herrmann-Pillath 1994, 2006, 2009a). Very often, the English 'civilization' is the German 'Kultur'. But this is a mere superficial play with words. What is essential is Kuran's idea of systemicity of civilizations, which establishes patterns of cultural mechanisms, and these patterns are the missing link between the micro- and the macrolevel.

The paper proceeds as follows. I develop the theoretical approach in section 2, mainly based on an extension of Aoki's recent approach to institutional analysis, which allows to specify the causal dynamics of the mico-macro link. In the third section, I analyze three core cultural phenomena in China, networks, localism and modernism, which I summarize in a theoretical overview by way of conclusion in section 4.

2 The De-constructionist approach to culture

In the recent economic uses of the term, culture appears to be an external constraint on individual economic behavior, which is directly reflected in its impact in econometric models. This approach seems in stark tension with modern uses of the term in anthropology and philosophy (which is only reflected in economics by some writers in the institutionalist school, see e.g. Mayhew 1994; in more detail see Herrmann-Pillath 2006). In these uses we have to reckon with the distinctions between cultural atomism and holism, and between cultural determinism and creativity. Whereas the majority of economic approaches tend to adopt the position of cultural determinism recently (which paradoxically contradicts certain fundamentals of mainstream theory, compare Jones 2006), many anthropologists would argue that the essential property of culture is creativity, hence novelty, that springs to the eye especially in the phenomena of cultural mergers and syntheses (for a programmatic statement, see Hannerz 1992). Culture relates with the fundamental human capacity of sense-making, seen as a population level phenomenon which involves sets of artefacts which are both the objects of cultural creativity and the carriers of cultural meanings. This relates with the atomism/holism dichotomy, in turn (compare Ingold 1986, Brumann 1999). Culture is a set of cultural items, which can be mixed, transformed and transmitted in myriads of ways. At the same time, sense-making puts those items into the context of larger systems of human sense-making, such that the meaning of individual items is never independent from the meaning of other items. Thus, atomism and holism interact in the process of cultural change and innovation.

'Emics' and 'etics': The nature of cultural causation 2.1

What does this anthropological perspective imply for economic analysis? The most important consequence refers to the notion of cultural causality. Picking up Kuran's framework again, and adding the insights reaped from the previous definitions, we can distinguish between two sides of systemicity in the developmental trajectory of civilizations. I propose to introduce a classical methodological distinction in anthropology, namely 'etics' versus 'emics' (Harris 1979), to deal with these two sides analytically. The terms have been motivated by the distinction between 'phonetics' and 'phonemics' in linguistics and refer to two different positions of the observers (Feleppa 1986, Headland et al. 1990). Phonetics decribes the sounds of language by means of universally testable physical concepts applied by any kind of observers,

especially external ones. Phonemics classifies the sounds of language according to whether and how they discriminate between different meanings of words, which requires to adopt the position of the internal observer, because there are fundamental limits to differentiate meanings by purely external observational criteria (the classic on this is Quine 1960). This dualism directly extends into cultural analysis in general, as the 'etic' view would identify generic aspects of culture which are driven by causal forces that are independent from internal processes of sense-making, whereas the 'emic' approach highlights the role of the latter. The distinction also allows to focus on the relation between atomism and holism in cultural analysis, because the etical analysis can isolate single cultural mechanisms and also compare them across cultures, whereas emic analysis needs to treat single acts of sense-making in the context of the totality of meanings in a given culture, since the meaning of all single acts depend on cultural discriminations against the meanings of other acts.

The dualism of etics and emics is particularly useful to analyze the role of complementarities in economic systems. One is the role of institutional complementarities in the sense of technological complementarities between the actions conditioned on those institutions. This is the 'materialist' dimension in Kuran's terms, and refers to all direct impacts on the pay-offs that actors generate in their complementary actions. These technological complementarities are amenable to etic analysis. The etic approach relies on empirical data that can be confirmed concurrently by external and internal observers, such as profits generated from certain economic actions, productivity measures etc. One classical analysis of etic institutional complementarities is Aoki's (1988) comparative analysis of the Japanese and the US American labour and capital markets (J-firm vs. A-firm). Aoki showed that similar levels of economic performance, however with distinct structural patterns of specialization, can be achieved with very different forms of economic organization, if they complement each other across sectors and even domains (economy and political system) (for a related analysis of complementarities in international specialization, see Grossman and Maggi 2000).

The other side of complementarities is the cultural complementarity which emerges from the simultaneous processes of sense-making on the individual and the population level. This can be analyzed in terms of emic analysis. For example, in the technological, i.e. etic complementarities between the capital markets and the labour markets, meanings come into play when defining the roles of different actors. The technological functions of actors root in their identities, which reflect they ways how the give meaning to their actions and the actions of others. For example, the meaning of the role of a 'manager' differs substantially across different countries and cultures (see Hofstede 2007), which can support and even leverage the material systemicity of the action taken, culminating in distinct styles and cultures of management (such as when comparing the American and the German one, see Abelshauser 2003, Armbrüster 2005). This observation can be generalized: Considering socio-economic systems as consisting of sequences of interactions between actors, the etic dimension of complementarities refers to the mutual conditioning of pay-offs for the different agents, and the emic dimension refers to the coordination of their identities as actors through interactive sense-making. In this view, there is no arbitrary way to change or mix different single mechanisms as seen in the light of etic analysis, such as reforming capital markets without changing the labour markets, because the mechanisms are interdependent in the emic dimension via the actors's identities (for a related game theoretic view, see Bednar and Page 2007). For example, reforming capital markets might induce changes in the identities of managers which directly affect the mechanisms in the labour markets (compare Aoki 2003).

In a nutshell, the etics refers to the strategic games that actors play, and the emics to the language game (in the Wittgensteinian sense) into which the former are embedded (compare Ross 2005, 2007). This approach concurs with recent attempts at establishing an 'economics of identity', if we do not just take certain social categories for granted that are involved in fixing identities in different networks of relationships (as mainly done in Akerlof and Kranton 2000), but also heed attention to the fact that those categories are linguistically mediated, and hence objects of creative sense-making on part of the actors (Davis 2003, 2007).

How can we relate this approach to the economic analysis of institutions? I propose to analyze this dynamics according to Aoki's more recent scheme, which has been firstly and comprehensively presented in Aoki (2001) and later modified according to figure one (Aoki 2007, 2011). The major difference between the schemes relates with a concept that is central for my approach to culture. Whereas in Aoki (2001) emphasis is still laid on the coordination among cognitive or mental models among different actors (for similar approaches, see Denzau and North 1994, North 2005), Aoki (2011) emphasises the role of external artefacts in establishing the coordination of actions via institutionalization.

Aoki distinguishes between two different dualities, i.e. between the individual level and the level of systemic interactions, and the behavioral level as opposed to the cognitive level. It is essential to see that the cognitive level is not congruent with the level of individuals but includes population level processes. This interaction has been much emphasized in recent developments of cognitive science under the heading of 'distributed cognition' (Hutchins 1995, Sterelny 2004; for an economic reception, see North 2005). Further, the behavioral level does not only include the individual level, but also coordinated patterns of behavior in populations, which I have related with the notion of performativity recently (Herrmann-Pillath 2010, 2012). These interactions across the dual dimensions emerge from the circular causality that drive the institutionalization of behavior.

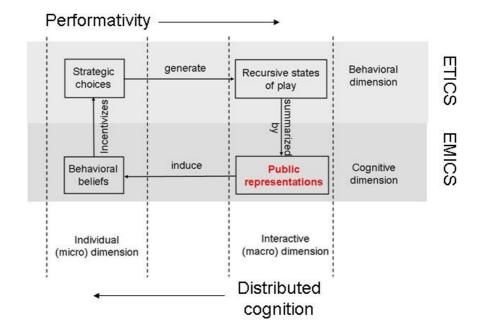


Figure 1: The Aoki model (modified after Aoki 2011)

I further argue that the behavioral dimension corresponds to what Kuran identifies as materialist dimension, and I refer to as etics, and that the cognitive dimension matches with the cultural dimension, i.e. the emics in my parlance. The interaction between the two dimensions results from the essential process of information compression, according to Aoki. In the etic dimension, we meet the standard object of economics, namely the interactions, often strategically interdependent, between actors which reap pay-offs that determine their relative positions in subsequent stages of interactions. Aoki now argues that these recursive states of play are summarized by sets of public representations of those states which impact on the behavioral choices of the actors. Those representations summarize the complex sequences and results of the interactions and thereby reduce the complexity of individual choices. This classifies as a process of distributed cognition, i.e. the public representations are shared in a population of actors and thereby reduce the cognitive load for the individuals. According to Aoki, this results from the fact that the representations induce sets of individual beliefs, which are coordinated among the population, yet without converging necessarily (e.g. beliefs about the labour market can be different between workers and employers). Thus, the resulting behavior is channelled into a particular direction, namely the stabilization of the recurrent states of play.

I posit that this can be interpreted as the duality of performative action and distributed cognition. An action is 'performative' if it is expressive in the sense of creating the social fact that is implied by this action (for related uses of the term in organization theory, see D'Adderio 2011). That is, the action causes a certain pay-off in material terms, but simultaneously expresses the identity of the actor. In expressing the identity, the actor relies cognitively on certain sets of publicly shared representations, which reduces the cognitive load of strategic choices. In linking those two dimensions, one central phenomenon comes to the fore, i.e. human language. Linguistic entities are the most important cultural items which establish the linkages between the two levels of interactions, i.e. the etics and the emics.

We can now present a precise definition of cultural causality in economic analysis. The distinction between emics and etics is universal, i.e. we cannot simply say that culture is where the emics is. Basically, the Aoki model describes any kind of institution in terms of a circular causality involving performativity and distributed cognition, mediated by external artefacts, i.e. public representations. Cultural causation occurs when we observe institutional complementarities which can be measured by means of etical analysis, but which essentially rely on the embeddedness of actors' identities into systems of public representations, which can only be specified empirically by emic analysis. In other words, if we can show that the recurrence of the states of play essentially depends on the sense making activities of the actors, which in turn create interdependencies across different states or even domains, we are justified to talk about 'cultural causation'.

2.2 A few nuts and bolts for cultural analysis

What are the implications of this framework for the empirical analysis of institutional change? The most fundamental implication is that there can be no methodological primacy for etic analysis, which always needs to be accompanied by the emic reconstruction of meanings. For example, if institutional change enlarges the scope for private entrepreneurship, it is not sufficient to analyze the resulting pay-offs in terms of economic opportunities, but we also have to

consider the social meanings associated with the role of 'entrepreneurs'. Further, institutions themselves have meanings and have to be interpreted by the actors who react on certain incentives and sanctions in following an institution (compare Searle 2005). In this context, the emics/etics distinction relates with other distinctions proposed in the literature, such as informal vs. formal institutions (North 1990). For example, in many circumstances formal institutions in terms of written rules can be conceived in etic terms, whereas their implementation in specific societies involves the interaction with existing informal institutions, which can be seen as interpretive action, hence can be analyzed in emic terms.

Now, in order to make the concept of culture operational in the context of the Aoki model, I propose to distinguish between four different aspects of the circular causality involved in institutionalization (fig. 2): units or elements, patterns, processes and states, which are recursively related, that is, a state resulting from a patterned process involving certain elements can become a unit in turn. Units or elements are the basic objects of cultural creativity, hence interpretive activity. In the Aoki model, an element relates with a set of public representations that is stable through time.

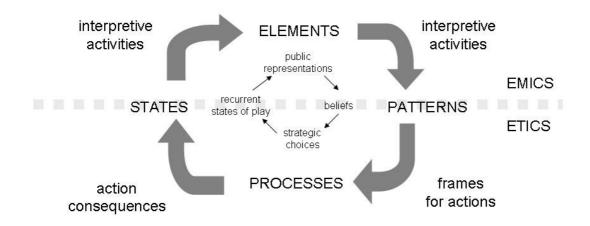
In emphasizing the role of elements, I start with the perspective of cultural atomism. This means that I consider a number of units of culture, which correspond to sets of public representations in particular populations of agents. Elements can be single organizational procedures, certain artefacts, or linguistic entities, or any other object which is socially shared. Especially, elements can be referred to abstract and general categories, and with relation to institutional analysis can be 'formal institutions', 'informal institutions', 'cognitive schemes' and 'routines', in particular. For example, a 'private entrepreneur' is a legal category, a stereotype, or a specific person at a particular time and place. These can be deconstructed into sets of formal and informal institutions, and related cognitive schemes. The notion of cultural creativity implies that these elements can be reshuffled, mixed and reinterpreted in limitless ways.

However, human interpretive activity strives to establish patterns, i.e. makes sense of elements in their relationships with other elements. A pattern arranges elements into a larger context of sense-making activities, esepcially with reference to fixing the identities of actors. For example, the roles of private entrepreneurs relate with other roles in society, such as government officials. There may be certain shared conceptions of these roles, such as that the properties that make up a successful entrepreneur may not be the relevant ones for being a good government official. These patterns coalesce into frames for actions, which corresponds to the beliefs in Aoki's original scheme. The actions create the interdependence between the emic and the etic dimensions, as they are driven by the frames that reflect the patterns of elements, hence are emic in nature, but lead to material consequences, which are etic. For example, entrepreneurs accumulate wealth, which is displayed in expensive imported cars. If these consequences converge into recurrent states of play, such as a certain number of private entrepreneurs achieving those positions and becoming discernible in society as a particular group, this results into states of play. There is no intrinsic property of a state beyond the fact of recurrence through time. Therefore, the stability of certain states essentially depends on becoming an element in turn, which closes the causal circuitry.

A state can become an object of interpretive activity, in turn, thereby resulting into the construction of a new element, which can be the object of a new causal circle. Thus, private entrepreneurs may be recognized as a separate group in society, which leads to new conceptuali-

zations of social structure, relations of power and so forth. These conceptualizations are reflected in sets of public representations, which channel further sense making activities.

Figure 2: Framework for empirical analysis of cultural causality



These are my nuts and bolts for analyzing cultural causality. Compared to existing economic approaches, I introduce two conceptual novelties. The first that I do not treat culture as the legacy of the past, but as present creative activity of individuals who deal with sets of cultural items (units or elements) or 'public representations' in trying to make sense of their strategic interactions in society. This approach clearly refutes cultural determinism which is strangely dominating cultural analysis in economics today. The second is that I dissolve the micromacro distinction into two concepts which are processual in character, i.e. distributed cognition and performativity. By means of this distinction, I am able to bridge the micro-macro gap in current cultural economics.

3 The cultural embeddedness of institutional change in China

I will now further develop my analytical framework in seeking applications on the case of China. I select three topics, which seem to be of high level of generality and refer to specific features of the Chinese economy: 'Networks', 'Localism', and 'Modernism' (cf. Herrmann-Pillath 2006). The 'Networks' perspective sees the interaction between formal institutions and economic actions as being mediated via culturally specific forms of network construction. 'Localism' refers to the peculiar dynamics of the interaction between the central government and local governments in China, which has attracted considerable analytical attention recently. 'Modernism' relates to the particular phenomenon of reflecting upon the Chinese cultural legacy in the context of economic growth, and is manifested in one essential feature of Chinese contemporary economy and society, i.e. the rural-urban dualism. In presenting my

analysis, I follow one line of thinking that has been articulated already in Redding's (1990, 1996) seminal analyses of Chinese economic and business behavior in Hong Kong and Southeast Asia, namely emphasizing the hybridization of cultural forms in the process of modernization. This hybridization is the core process of cultural creativity. The role of culture in contemporary Chinese economic development cannot be reduced to the impact of past traditions on the present, but lies at the very heart of modernization.

3.1 Networks and relational collectivism in the Chinese market economy

The analysis of networks relates with the individualism/collectivism distinction which specifies the attitudes of actors in social interactions. I claim that most economic uses of these terms fail to recognize the fact that this distinction is a cultural one, in turn. In the Chinese context, this means that we have to adopt the emic perspective to understand the cultural logic of interactions. It is standard lore in cultural analyses of China to classify China as a collectivist society. Although there is plenty of apparently supporting empirical evidence on this, especially when including cross-disciplinary aspects, there are increasing doubts on the validity of this duality. Interestingly, these result from psychology in the first place, but are further substantiated by the emic view on Chinese social relations (for a more detailed analysis, see Herrmann-Pillath 2009). The latter starts out from the consideration of 'guanxi', i.e. social relations, in particular (Yang 1994, 2002, Gold et al. 2002). Subsequently, I develop the claim that the difficulties in grasping the exact meaning of *guanxi* exactly reflect the transition from the material / etic to the cultural / emic dimension, and that they manifest themselves in peculiar empirical phenoma in the Chinese economy, especially in the context of institutional change.

In the analysis of cultural patterns of social interaction, recent psychological research tends to discard the simple dualism of individualism vs. collectivism because the empirics reveals many contextual factors that influence the relevant behavioral expressions, and because the term 'collectivism' remains underspecified in identifying the relevant level of collective (for a comprehensive survey, see Brewer and Chen 2007). In the most simple way we have to distinguish between abstract groups which are defined according to shared properties of individuals (all buddhists) on the one hand, and on the other hand concrete groups which are defined according to manifest and actual social interactions (the budhhist monks of a particular monastery). The latter concurs with relational collectivism, the former with group collectivism, or, as I prefer to call it, 'categorial collectivism'. For example, a person may be weak in categorial collectivism (e.g. lacking loyalty to the nation, or to the company etc.) but strong in relational collectivism (as alluded to in the famous claim of early Chinese 20th century reformers that the Chinese appear to be a 'fistful of sand'). There are important examples where both seem to fall together, such as in the family, if the abstract group is also the unit of recurrent relations. However, the distinction is of particular relevance when analyzing the interaction with individualism. This is because the threefold distinction does no longer allow to locate the two dimensions in one continuum as two extremes (as in the famous Hofstede scheme), but requires to treat individualism as a behavior that is expressed in the context of either of the two forms of collectivism.

There are other approaches in modifying the individualism/collectivism dichotomy, which I cannot consider in more detail here, that distinguish between 'vertical' (emphasizing hierar-

chy) and 'horizontal' (emphasizing equality) forms of both collectivism and individualism, thus introducing a four-dimensional framework for cross-cultural comparisons (Shavitt et al. 2010). Then, cultural similarities across countries may result from the shared feature of verticality (such as the US and China), and interfere with the individualism/collectivism opposition. These distinctions can also be referred to the dual approach to collectivism that I adopt here, because group collectivism implies hierarchical subordination of classes of concepts. Further, it is important to notice that individuals within culturally defined populations can also show cultural variations along these dimensions. And finally, individuals differ in activating different aspects of collectivism, depending on the specific setting of interactions, with this activation pattern in turn displaying cultural specificity. This refers to the three conceptions of the self in self-construal theory, namely the individual self, the relational self and the collective self, where the individualism/collectivism dichotomy is activated differently depending on whether individuals deal with in-group or out-group relations. For example, when dealing with in-group relations, relational collectivists emphasize the relational self, and categorial collectivists activate the collective self (cf. Li 2008). Interestingly, the complexity of the Chinese notion of the self has been noticed by Chinese studies for long (Metzger 1977, Saari 1982).

These distinctions fit particularly well into the indiginous descriptions of social relationships (for overviews, see King 1994 or Gabrenya and Hwang 1996). Traditionally as well as into modern times, China can be located in the relational collectivism domain, however concurrent with a strong individualistic drive in social relationships. This is because even in the traditional understanding, social relations are seen as fundamentally open and as being actively construed by the individual. The standard picture of authoritarian patrilineal groups certainly applies for the official Confucian doctrine, as it was actively imposed on Chinese society after the Neo-Confucian turn, and in particular under the Qing (Faure 2007). But this 'great tradition' differed from the Chinese 'little tradition', and even stood in tension with it frequently. This view concurs with recent revisionist work in economic history which emphasizes the institutional similarities between the traditional Chinese market economy and the conditions in Europe at the eve of the 'Great Divergence' (e.g. Wong 1997 and Pommeranz 2000, or other work surveyed by Arrighi 2007).

The Chinese 'little tradition' was fundamentally shaped by market interactions, as has been shown seminally by Skinner (1964/65) in his analysis of traditional Chinese markets as social systems. The basic unit of traditional rural society until most recently was the market, and not the village, which was paradoxically constituted as elementary unit only by recent Maoism (Shue 1988). The market was essential not only as the focus for economic transactions, but especially for the establishment of affinal kinship relations via village exogamy. Market transactions were embedded into social networks, in turn. As a result, many groups in Chinese society were in fact flexible arrangements centering around individuals who strove to build reliable contexts for individual advancement and benefit, and which could span wide cross-regional networks e.g. in merchant activities. This is also reflected in the fundamental opposition between 'vertical' and 'horizontal' relations in the 'Great' and the 'Little' traditions, respectively: The government actively aimed at imposing vertical principles in local group formation, especially in the context of the lineage, but important alternatives were also always available, in which equality was emphasized, such as in the recurrent social movements (peasant uprisings, secret societies, sisterhoods, sectarian organizations etc.).

Yang (2007) has argued that this pattern undergoes a strong revival in many rural and urbanizing places in China, epitomized in the 'ritual economy', in her parlance. Chinese religious behavior, old and new, is closely intertwined with economic behavior, and the market towns traditionally were also sites of intense religious life (for the case of Taiwan, which can serve as a reference with less political obstruction against popular religion in the past, see Pennarz 1994). This is also true today for the rural and rapidly urbanizing rural places as well, involving traditional Chinese popular religion or Daoism as well as new religious beliefs, in particular Christianity (compare Cao 2008).

This situation is reflected in a remarkable continuity of indigenous perceptions and descriptions of social relationships. In post-reform Chinese villages, we witness a resurgence of traditional ways of interaction that can be also found in earlier centuries (for an extensive case study and theoretical reconstruction along the lines summarized below, see Chang 2010). These focus on central notions such as the flow of gifts and mutual help patterned according to local understandings of propriety, the distinction between moral and social face, and the activation of shared identities. One of the distinctive features of networking in the Chinese context is the idea of long-term reciprocity which explicitly requires short-term imbalances to sustain a relationship. Indeed, in Hofstede's (1991) set of cultural dimensions it was China that forced researchers to introduce a new dimension, long-term orientation, in which Chinese and East Asian societies manifest maximum values. Relational collectivism finds expression in the complex rules of *li shang wanglai*, which go beyond the narrow domain of *guanxi*. This classical Confucian term refers to the ongoing construction of relationships by maintaining and developing interactions (wang lai) according to certain rules of proper behavior in particular contexts (li shang). These rules provide reasons for actions, which are in turn recognized publicly. Thus, every individual is continuously occupied with moving across different social domains and arranging networks of relationships among them. Long-term obligations are only possible with a strong moral motivation to meet them. This is the specific place where Confucian morality comes into play, but also the impact of ancestor worship which is the foundation of the phenomeon of family individualism, as well as notions of kharma in Buddhism (cf. Yang's 1957 classic analysis). In the traditional Chinese understanding, obligations resulting from ongoing interactions have validity even across different generations. It is fascinating to observe that these patterns manifest stability across many centuries: Based on the detailed analysis of the flow of artworks among Ming-dynasty elites, Clunas (2004) shows how individuals crafted their social relationships actively, and identifies the parallels with guanxi practices in Chinese villages today (e.g. Yan 1996, Kipnis 1996, 2002).

My analysis is especially important to understand one basic fact about contemporary Chinese society, which is the astonishingly high degree of general trust according to the standard measures used in the social sciences. According to the traditional account, Chinese social behavior shows a steep decline of trust across the borders of the more narrow and intimate groups of family and kinship (e.g. Landa 1994). In contemporary China, we observe levels of general trust which go far beyond other transitional and developing economies, and which approach Skandinavian levels (for pertinent data of the World Values Survey, see Herrmann-Pillath 2009). In fact, we can surmise that the traditional account mainly reflects Chinese attitudes under conditions of colonial rule and migration, hence diaspora status. Under normal conditions, the art of social relations in China actually contributes to a high level of confidence into the individual capacities to construct open social networks. This can even produce paradoxical results: Li and Wu (2007) have argued that many forms of corruption in China

actually depend on high levels of trust and reinforce trust, because of the long-term nature of networks. Thus, for instance, a favour does not need to be balanced by another favour or bribe immediately, because imbalanced reciprocity keeps the relationship going: Corruption in China is not mainly about spot transactions. This is only reliable if there is a moral commitment on the two sides, thus paradoxically sustaining moral behavior through corrupt relationships.

One particularly salient proof of the interdependence between social relations and general trust is Tsai's (2002, 2007) research into local accountability. Tsai argues that in Chinese villages and townships the specific shape and structure of social relationships directly determines the performance of local leaders in producing public goods. Villages which are very similar in the level of development and which often are in close distance to each other can nevertheless manifest very different levels of public goods provision, also affecting economic development. The most important variables that explain these differences are the existence of lineages and temple organizations, because those social structures embed leaders' social networks into long-term relations which are morally grounded and provide a public sphere where their behavior is open to scrutiny. This is another expression of Yang's (2007) notion of the ritual economy, which I will pick up again in the next section. Clearly, the re-emergence of traditional popular religion in China is a contested area, where very often vigorous local initiatives meet with local government repression, and attempts at channeling the initiatives into other fields. Yet, these activities always meet contesting interpretations of different social groups, which also provide the space and opportunity for cultural creativity (see Siu 1995).

To summarize, I claim that contemporary economic performance in China is deeply related with a cultural pattern of relational collectivism *and* individualism, which is rooted in China's past, i.e. her traditional market economy and society. However, this is not just a shadow of the past, but individuals today activate the symbolic resources of tradition to shape their future. These patterns form a substantial part of social capital in China, which has been identified as central driver of divergent economic performance in numerous research contributions. In the rural areas this interdependence is visible in the revival of many traditional practices in religion, kinship and social relations.

3.2 Localism and the cultural embeddedness of central-local relations in China

Relational collectivism is directly related with the phenomenon of localism in China, because concrete social relations are located at specific points in time and place. The special role of localities in China's political economy has been emphasised for long and has achieved paradigmatic status in the 'quasi federalism' paradigm (Qian and Weingast 1996). In fact, the problem of setting up a proper institutional framework for central and local administrations is a constant in Chinese history, and some important structures, such as the division of the country into counties, manifest resilience over millenia (for a survey, see Chung and Lam 2010). However, there are different expressions on different levels of the territorial hierarchy which might not lead back to the same cultural determinants. In particular, there are interactions between traditional patterns and modern organizational innovations.

I argue that localism in China today relates both with the etic and the emic dimension, but involves different elements in the latter. Regarding the etic dimension, localism results from

standard problems of principal-agent relations with asymmetric information, especially in the context of multiple principals contexts. Given the vast size of China, the diversity of local conditions, and the limited informational capacity of any central organization, this problem establishes a strong continuity between the past and the present (Ma 2011). In spite of the tremendous increase of information and communication technologies in recent times, this is matched by the growing complexity of local issues, especially in the context of economic development. In China in particular, it is further leveraged by the challenge of comprehensive institutional changes under uncertainty. This has been classically analyzed by Che and Qian's (1998a,b) account of the rise of TVEs in China. These authors argued that the emergence of local government owned enterprise in China is a peculiar institutional response to the problem of how a potentially predatory central government can credibly contain these activities. Absent a fully fledged enforcable rule of law, both private and state ownership may be inefficient solutions relative to local government ownership, because in case of the former there are strong incentives for revenue hiding, wheras in case of the latter there are no incentives for production. Local ownership aligns the interests of central and local governments, such that local governments increase revenue for both, which partly is invested into local public goods, and at the same time local governments have stronger incentives for production, though less than in the pure private ownership regime (which explains the privatization drive in China that emerged since the late 1990s). On the other hand, private entrepreneurs have stronger trust into local governments, so that the hold-up problem regarding their investment is overcome. These incentive problems are very similar to the low-tax high-equilibrium trap growth regime in Imperial China, as analyzed in Ma (2011).

However, Smyth (1997) has pointed out that these specific forms of governance are also culturally embedded in the sense that *guanxi* relationships provide an environment where mutual claims can be safeguarded and enforced even with insecure property rights. Indeed, even after privatization many private enterprises remain embedded into a web of informal relations which also imply that part of the residual income continues to be claimed by local governments, for example, in the shape of donations or various fees. Especially, management-buyouts often occur with very low asset prices, which actually reflect the continuing symbiosis between local governments and entrepreneurs: The low price keeps claims of local governments valid, in the sense of an investment into the private business (Li and Rozelle 2003). *Guanxi* relations, building on long-term reciprocity and mutual trust, can create substitutes for private property rights under the rule of law, though against the background of a large variety of different kinds of 'local states' in China, reaching from predatory to entrepreneurial governments (Baum and Shevchenko 1999).

Government in modern China manifests an amazing coexistence of domains where central control is established with even draconic means down to the grassroots level (e.g. population policies) whereas in other areas local autonomy is often substantial, even against central interests. In fact, local autonomy is continuously negotiated across different levels of government, which certainly departs from the notion of 'federalism', where these rights would be enshrined in constitutional rules. There are multi-facetted cultural determinants of this phenomenon, which include forces that only emerged during the recent processes of institutional and organizational modernization.

One is that localism directly relates with experimentalism, and in this contexts reflects the specific organizational culture of the CCP in the 20th century. Heilmann (2008) has shown

how the specifically Chinese approach to policy administration goes back to earlier experiences during the Maoist Yan'an period and even early Republican China. These emphasized adaptation to local conditions, the selection and propagation of model cases and the emergence of a whole bunch of special policy slogans (such as *you dian dao mian*) and administrative routines. Under Maoist extremism, these policies were linked up with the recurrent launch of campaigns aiming at policy convergence across the country, which, however, mainly emphasized ideological and formal convergence, eventually allowing much scope for divergence, such as when factually fusing traditional kinship and village structures with the organization of People's Communes (Potter and Potter 1990).

On an even deeper level, experimentalism relates with traditional beliefs about the spiritual powers of contingencies in localities, which can be grasped, among other ways, by feng shui techniques. In popular religion, the locality was always represented in different gods, such as the Earth god, that were the object of rituals at local temples. Chinese traditional religion has always been organized in terms of concentric cycles of ascriptions, which were intersparsed by wider ranging activities, such as pilgrimages, and were embedded into hierarchical conceptions of the pantheon of ghosts, that reflected the inner-wordly bureacracy, yet maintained the potentially disruptive force of local heterodoxy (Feuchtwang 1992). The hierarchical sheng meets with the the *ling* of the locality, which represents the creative, non-predictable forces in social life (Dean 2003). The institutional setup of experimentalism in China today amazingly matches with the culturalist control pattern in Imperial China that emphasized the orthopraxy relative to the convergence of beliefs and allowed for divergent local interpretations of what were otherwise centrally controlled and disseminated cultural items (Watson and Watson 2004: 269ff., 423ff.). Although this dualistic picture of orthopraxy and heterodoxy has been questioned in recent research (overview in Sutton 2007), this has only further emphasized the complexity of central/local relations in China. Culturalist unification of symbols and rituals allowed for a wide range of actual interpretations and even heteropraxy, which sometimes disguised itself in the appropriate manipulation of officially legitimate symbols.

This creative tension between orthopraxy and heterodoxy also seems to inhere one of the most fundamental features of administrative practice in modern China that was highlighed for the first time by Schurmann (1966), namely the *tiao / kuai* dichotomy. Whereas the *tiao* authority relations often only include the so-called 'professional relations' (*yewu guanxi*), it is the *kuai* that represents the territorial disciplinary and budgetary controls, hence the locus of power. These relations have been constantly shifting, and manifesting a clear centralization tendency recently (Mertha 2005). However, even where it succeeded, it resulted into new forms of local power expressions, always falling short of a full-scale assertment of central power. Mertha's analysis of 'soft centralization' at the provincial level is reflected in the long-standing fact of a low degree of inter-provincial economic integration in China, which shows up even in post WTO statistical data (the seminal analysis is Young 2000; for most recent results and a literature survey, see Herrmann-Pillath et al. 2011): China's marketization shows the clear patterns of localism, in spite of increasing integration on higher regional levels.

In this sense, the phenomenon of localism in China is closely connected with the phenomenon of culturalism, which refers to the establishment of integrated structures of power and social control via the active regulation of cultural symbols by the Imperial state. Culturalism has been identified as the essence of the traditional approach to government in late Imperial China, which is also Confucian in important respects, with its emphasis on social learning and

education. The recent patterns of experimentalism closely match with the cultural controls operating in Imperial China, such as the leeway left for local activities, and the corresponding central processes of observing the results and finally channelling local practices via crossregional promulgation of proper rituals, also including the many failures in achieving its aims (e.g. Pomeranz 2007). For example, in an earlier paper (Herrmann-Pillath 2000), I have claimed that there are substantial family resemblances between the way how popular religion was governed in Imperial China, and how meanings of statistical data are negotiated across different levels of government in contemporary China. The common ground can be discovered when we consider the way how meanings of symbols are negotiated between localities and central authorities. The Chinese language obtains the status of a powerful metaphor in this regard (Sutton 2007: 11). With the disjunction of written and spoken language, the Chinese script as a coherent and centrally controlled medium of language co-existed with a family of languages which manifested linguistic diversity that was and is as large as in Europe, at least. Formal homogenization has coexisted with the diversity of linguitic practice. In a similar vein, the Imperial government always struggled with maintaining a certain coherence of meanings across the huge diversity of local beliefs. Chinese popular religion directly reflects this role of government in imagining a pantheon of gods that mirrors the official bureacracy, while at the same time maintaing the diversity of interpretations and even the creative powers of local contexts, where entirely new interpretations and religious objects may become active.

When China launched the economic reforms in 1978, a statistical apparatus was almost non-existent, as a consequence of the Cultural revolution. As a result, the development of a modern statistical system was a matter of generational change, requiring the education and training of experts on all levels of government. Beyond the necessary expertise, this has also been a question of how statistical work is conceptualized. One Achilles heel of the Chinese system was always that numbers are not only a way to depict reality as accurately as possible, but also to communicate political intentions and to manifest achievement. This stands in the long tradition of historical thinking in China, which, as a foremost example of empirical work in traditional societies, always was seen as driven both by the need to depict actual events and to promulgate a moral worldview. As a result, the Chinese statistical system remains problematic until most recently (Holz 2008). Statistics is partly a public which does not only reflect reality in an objective way, but also the sincerety of the corresponding policy intentions.

The role of culturalism in China can be traced back to fundamental divergences between cognitive structures that are salient when comparing Chinese and Western cognitive styles. This is certainly contested terrain, but it is remarkable that Chinese administrative practices also go back to the import of ideas of American pragmatism, namely Dewey (Heilmann 2008: 19ff.), which reflected a specific epistemological position standing in tension with mainstream Western philosophical traditions. This position comes close to more abstract cognitive patterns that have been summarized under the heading of 'field dependence' (Nisbett 2003). Interestingly, in this research the question remains open whether cognitive styles are conditioned on social structures or whether the latter originate from cognitive styles (Ji et al. 2000). In my view, this ambivalence reflects the embedding functioning of culture. Field dependent cognition manifests a comparatively strong impact of context on the perception of single items, and emphases relational properties of items, such as when emphasizing relations as opposed to classifications (which clearly corresponds to the duality of relational collectivism versus categorial collectivism) (Ji et al. 2004). Thus, we can posit the hypothesis that localism in China is also an expression of field-dependent cognition, which even is reflected in explicitly designed pol-

icy approaches to collective learning, i.e. experimentalism. This might also correlate with other aspects of cognitive styles, which are reflected in one of the most essential artefacts of Chinese culture, the Chinese script. Chinese writing reflects the principle of modularization in diverse contexts, reshuffling similar elements in ever-new combinations, while maintaining an overarching integration (Ledderose 2000). Further, as it is well documented in psychological research (Shavill et al. 2010), compared to Western ones, Chinese subjects show a greater readiness to accept contradicting propositions and positions, depending on contexts, which is again reflected in the emics of Chinese tradition, where the separation between 'ritual' and 'belief' did not concur with Western interpretations (Sutton 2007).

To sum up, we have a great number of empirical observations about institutional change and economic processes in China which point towards a distinct causal role of the local level, such as the relationship between local governments and the local economy, central-local relations in administration or the patterns of inter-regional economic integration. These phenomena can be partly traced to cultural determinants, if we recognize the many family resemblances between them and the long tradition of minimalist Imperial rule in China (Huang 2008).

3.3 Modernism: Relying on culture to launch cultural transformation

The final cultural pattern that I wish to analyze is modernism, albeit only briefly. This seems opposite of the notion of traditional culture, for sure, but paradoxically builds on traditional values as well. This is because the traditional idea of the universal malleability of people through education also supports the idea that the modern individual can be created by fiat, under the guidance of the state which claims to be the vanguard of modernity. This is an excellent example how simple dichotomies between past and present implode in the face of interpretive creativity of people, often with unintended consequences. It is the Chinese penchant for modernization which is partly Confucian in essence, as far as the underlying anthropology is concerned.

After a series of failed efforts of modernization, and facing the humiliation of being sidetracked by Japan, modernization became the guiding principle of Chinese politics after the May Fourth Movement in 1919. It is essential to realize that this has affected all dimensions of social life in China, with long-term repercussions until the present. One conspicious example is consumerism. The consumer is a neglected factor in China's current economic performance: Chinese consumers are extremely innovative and receptive to all kinds of novelties, always in search for upgrading their lifestyles (Wang 2008). Marketing experts are well aware of the fact that this dynamics directly relates with some traditional behavioral patterns, in particular the concern for face and reputation. For example, the rapidly expanding sales of luxury goods in China partly connect with the gift economy in guanxi relations, therefore also involving male consumers in a significant way. Or, China has become the lead market for highend luxury cars, which transpires to lower quality levels, because consumers expect upgraded equipments everywhere. This role of consumption in Chinese society goes back to the 1920s, when Shanghai established its role as a the spearhead of prosperous lifestyles in China (Gerth 2003). Upgrading and internationalizing consumption patterns was seen as a direct reflection of modernity, and hence supported by numerous civil society activities, also sponsored by the government. These societal concerns about consumption also find expression in specifically Chinese phenomena, such as the Shanzhai consumer culture that partly drives the rampant violations of intellectual property rights in China. For many youths, appropriating and adapting foreign brands to the Chinese context, and making them available via counterfeits, is factually expressing the success of China's modernization. This emergence of the modern consumer was actively embedded into social engineering by the central government, which at the end of the 1990s supported the rise of the Chinese middle class by means of a wholesale privatisation of home ownership (Tomba 2004).

Modern consumerism is necessarily related with urbanization, as it is exclusively associated with urban lifestyles. The technological lead of the urban economy in the socialist model is now leveraged by the cultural lead of the urban consumers. In this context, modernism supports a genuine cultural break with the past, in the form of the dualism between rural and urban areas. This dualism was institutionally enforced via the household registration *hukou* system in the late 1950s, that artificially surpressed mobility between rural and urban places, thereby unintendedly reinforcing an emergent cultural divide between the two places. As a result, a caste-like system of classifying citizens according to different statuses of the place of household registration was created, which is only slowly being abolished today (Whyte et al. 2010). The effect is visible to everybody visiting China's cities: After the loosening of the restrictions to migration, tens of millions of migrant workers poured into the cities and became one of the factors creating competitive advantages of China, both in industry and infrastructure construction. But the two groups are culturally distinct in visible ways, even including the colour of the skin, language and dressing. Thus, Chinese economic performance is fundamentally shaped by the modernist cultural hegemony of cities over villages.

Evidently, this cultural hegemony introduces a special component into the culturalist patterns of political control in China, while at the same time reinforcing localism, especially in the countryside. The cultural cleavage between the cities and the villages recreates a gap between 'great' and 'little tradition' that drives the reemergence of traditional patterns in the rural areas. This is only superficially overcome by the rapid diffusion of modern consumer culture and the homogenization of behavioral standards via popular television series. However, modernism also drives the re-creation of traditions in cultural novelties in urban areas, such as the emergence of new religious movements that, among others, build on traditional Qigong practices (Chen 2003). The government struggles to keep the lid on these developments, as it claims to be the vanguard of modernization, thus abhorring any sort of 'superstition'. But it is precisely the speed of modernization that creates the demand for sense-making on part of the affected individuals.

All these efforts coalesce into certain ideas about the 'quality' *suzhi* of the Chinese individual and population (Kipnis 2006). Modernism is the basis for the specifically Chinese approach to biopolitics (Greenhalgh and Winckler 2005). One area is education, where *suzhi* denotes the aim to increase the quality of individuals by means of imbueing them with certain qualities and competences. This intermingles with the towering role of population policy in Post Mao China, which aims at increasing quality via the reduction of the number of children (Murphy 2004). It is fascinating to observe that these ideas are also reflected in popular culture, as they concur with traditional conceptions of almost magical improvement of individuals in martial arts novels and movies, and are the main driver of the immense competitive pressure on children in the Chinese educational system. As a result, Chinese society manifests a hidden system of social hierarchies which reflects perceived differences in 'qualities', such as between migrant workers and the urban population. Modern consumption is one way how these hidden

qualities can find open expression, thus driving the dynamics of the demand side in China's economic miracle.

To summarize those very brief and superficial remarks, modernization in China is a cultural phenomenon of its own right, which can be identified as 'modernism'. Modernism is a force that shapes many policy areas, reaching from technology policy over education to population policy. Partly, it is a modern variant of traditional Confucian beliefs about the malleability of individuals and the notion that education is a universal force of improvement.

4 Conclusion: Putting the parts of the cultural whole together

Pulling the different threads of the empirical overview together, I concentrate on localism, networks and culturalism as most important forces determining institutional change in China. Using the framework of fig. 2, I identify a number of 'cultural units' (fig. 3). It is essential to realize that these units are not themselves cultural phenomena, in the first step, but relate with symbols and linguistic entities, in the sense of Aoki's 'public representations'. Very often, we can identify cultural patterns by trying to understand the exact meaning of Chinese words, such as *suzhi* or *guanxi*.

Especially, I distinguish between:

- Formal institutions, such as legal texts and regulations, which, for example, define the rural-urban dichotomy in China, or which identify forms of ownership.
- Informal institutions, such as the rules of proper behavior in *guanxi* networks, which are expressed in reciprocal exchange of gifts and favours, partly driving also consumerism,
- Cognitive schemes, such as the specific attitudes towards orthopraxy, which fundamentally relate with cognitive styles, such as field dependence, and are reflected in the handling of symbols such as statistical data,
- Routines of organizations, in particular the Communist party, such as the nomenklatura system and its implications for cadre assessment.

These classes of items are arranged into patterns via the sense making activities of individuals who interact socially, for example in the setting of Chinese urbanizing villages. Thus, localism is a pattern that relates guanxi interactions, cadre management routines, cognitive schemes and so forth into one coherent framework of interpreting actions and current states of economic development in a spatial context. Localism is a pattern of behavior, but also a category in approaching social and political actions, such as in the context of experimentalism in policy design. As such, it is continuously negotiated among actors in different organizational contexts, which is basically the process of cultural creativity.

Localism triggers locally bounded trajectories of growth and development, which are reflected in divergent growth, which is a hallmark of China's recent development experience. Regional inequalities have increased substantially both on the larger cross-regional and the regional, even local scale. Institutional differences across regions cause different patterns of structural change, which coalesce into states. For example, the Zhejiang province pattern of private business is a substantial factor in determining divergent patterns of intraprovincial development. These states eventually turn into units and hence objects of cultural creativity. In the past, Zhejiang province was origin to the 'pragmatic' school of Confucianism, which

was in favour of commerce and opposed Neo-Confucian negations of 'utility' in favour of ritual and moral essence. So, today Zhejiang University has set up a Center for Confucian Entrepreneurs, thus actively reflecting the specific regional identity of the province.

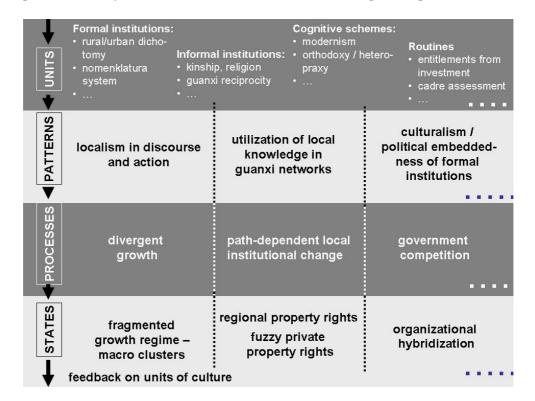


Figure 3: The dynamics of culture, institutional change and growth in China

Patterns interact, such as localism with networks, which results into specifically Chinese forms of embedded ownership, with the regionalization of property rights even in the state owned sector, but especially on the local level, where business oscillates between community control and embedded private capitalism. Development in different regions of China becomes path dependent, so that it is difficult to summarize the nature of China's economic system as a whole. This is a driver of another distinct Chinese phenomenon, the intense competition between local governments for opportunities to ecoomic growth. Culturalism provides the integrative framework, and is represented in the ideology and political practices of the Communist Party.

Recently, there has been much debate over the meaning and validity of a 'China model', sometimes even dubbed as the 'Beijing consensus' (Ramo 2004). Very often, in economics this idea centers around specific forms of economic policies and industrial policies (Rodrick 2007). As my discussion has shown, this perspective is too narrow. One hallmark of China's economic miracle is the underlying cultural complexity of interacting patterns across domains. This complexity cannot be reduced to simple and elegant recipes that might serve as a

model for others, if only in the sense that China provides the motivation to reflect upon the complexity of your own culture.

References

- Abelshauser, Werner (2003): Kulturkampf. Der deutsche Weg in die Neue Wirtschaft und die amerikanische Herausforderung, Berlin: Kadmos.
- Akerlof, George A. and Kranton, Rachel E. (2000): Economics and Identity, Quarterly Journal of Economics CXV(3): 715-753.
- Algan, Yann / Cahuc, Pierre (2009): Civic Virtue and Labour Market Institutions, American Economic Journal Macroeconomics 1(1): 111-146.
- Aoki, Masahiko (1988): Information, Incentives, and Bargaining in the Japanese Economy, Cambridge et al.: Cambridge University Press.
- Aoki, Masahiko (2001): Toward a Comparative Institutional Analysis, Stanford: Stanford University Press.
- Aoki, Masahiko (2007): Endogenizing Institutions and Institutional Change, Journal of Institutional Economics 3(1): 1-31.
- Aoki, Masahiko (2011): Institutions as cognitive media between strategic interactions and individual beliefs, Journal of Economic Behavior and Organization (2011), forthcoming,doi:10.1016/j.jebo.2011.01.025
- Armbrüster, Thomas (2005): Management and Organization in Germany, Aldershot and Burlington: Ashgate.
- Arrighi, Giovanni (2007): Adam Smith in Beijing. Lineages of the Twenty-First Century, London and New York: Verso.
- Baum, Richard / Shevchenko, Alexei (1999): The State of the State, in The Paradox of China's Post-Mao Reforms, ed. Merle Goldman and Roderick MacFarquhar, Cambridge: Harvard University Press, 333-362.
- Brewer, Mailynn, B. / Chen, Ya-Ru (2007): Where (Who) Are Collectives in Collectivism? Toward Conceptual Clarification of Individualism and Collectivism, Psychological Review 114(1): 133-151.
- Brumann, Christoph (1999): Writing for Culture: Why a Successful Concept Should Not Be Discarded, in: Current Anthropology, Vol. 40, Supplement, S1-S28.
- Cao Nanlai (2008): Boss Christians: The Business of Religion in the Wenzhou Model of Christian Revival, The China Journal 59: 63-88.
- Chang Xiangqun (2010): Guanxi or Li shang wanglai? Reciprocity, Spcial Support Networks, & Social Creativity in a Chinese Village, Taipei: Airiti Press.
- Che Jiahua / Qian Yingyi (1998a): Insecure Property Rights and Government Owenership of Firms, in: Quarterly Journal of Economics, CXIII(2).
- Che Jiahua / Qian Yingyi (1998b): Institutional Environment, Community Government, and Corporate Governance: Understanding China's Township-Village Enterprises, Journal of Law, Economics, and Organization, 14(1): 1-23.
- Chen, Nancy (2003): Healing Sects and Anti-cult Campaigns, The China Quarterly 174: 505-520.
- Chung, Jae Ho / Lam Tao-Chiu, eds. (2010): China's Local Administration: Traditions and Changes in the Sub-national Hierarchy, Abingdon and New York: Routledge.

- Clunas, Craig (2004): Elegant Debts. The Social Art of Wen Zhengming, Honululu: The University of Hawai'i Press.
- D'Adderio, Luciana (2011): Artifacts at the Centre of Routines: Performing the Material Turn in Routines Theory, Journal of Institutional Economics 7(2): 197-230.
- Davis, John B. (2003): The Theory of the Individual in Economics. Identity and Value. London and New York: Routledge.
- Davis, John B. (2007): Akerlof and Kranton on Identity in Economics: Inverting the Analysis, Cambridge Journal of Economics 31(3):349-362.
- Dean, Kenneth (2003): Local Communal Religion in Contemporary South-east China, The China Quarterly 174: 338-358.
- Denzau, Albert T./North, Douglass C. (1994): Shared Mental Models: Ideologies and Institutions, in: Kyklos 47: 3-32
- Djankov, Simeon et al. (2003): The New Comparative Economics, Journal of Comparative Economics 31: 595-619.
- Durlauf, Steven N. (2002): On the Empirics of Social Capital, The Economic Journal 112: F459-F479.
- Faure, David (2007): Emperor and Ancestor: State and Lineage in South China, Stanford: Stanford University Press.
- Feleppa, Robert (1986): Emics, Etics, and Social Objectivity, in: Current Anthropology 27(5): 243-251.
- Fernandez, Raquel / Fogli, Alessandra (2009): Culture: An Empirical Investigation of Beliefs, Work, and Fertility, American Economic Journal Macroeconomics 1(1): 146-178
- Feuchtwang, Stephan (1992): The Imperial Metaphor. Popular Religion in China, London and New York: Routledge.
- Gabrenya, William K. and Hwang Kwang-Kuo (1996): Chinese Social Interaction: Harmony and Hierarchy on the Good Earth, in: Bond (1996b): 309-21.
- Gelfand, Michelle J. / Chiu, Chi-Yue / Hong Ying-yi, eds. (2011): Advances in Culture and Psychology, Volume I, Oxford and New York: Oxford University Press.
- Gerth, Karl (2003): China Made. Consumer Culture and the Creation of the Nation, Cambridge and London: Harvard University Press.
- Gold, Thomas / Guthrie, Doug / Wank, David, eds. (2002): Social Connections in China. Institutions, Culture, and the Changing Nature of Guanxi, Cambridge et al.: Cambridge University Press.
- Greenblatt, Sidney / Wilson, Richard W. / Wilson, Amy Auerbacher, eds. (1982): Social Interaction in Chinese Society, New York: Praeger.
- Greenhalgh, Susan / Winckler, Edwin A. (2005): Governing China's Population: From Leninist to Neoliberal Biopolitics, Stanford: Stanford University Press.
- Greif, Avner (1994): Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies, in: Journal of Political Economy, Vol. 102, No. 5, 912-950.
- Greif, Avner / Tabellini, Guido (2010): Cultural and Institutional Bifurcation: China and Europe Compared, American Economic Review: Papers and Proceedings 100: 135-140.
- Grossman, Gene M. / Maggi, Giovanni (2000): Diversity and Trade, in: American Economic Review, Vol. 90(5), 1255-1275.
- Guiso, Luigi / Sapienza, Paola / Zingales, Luigi (2006): Does Culture Affect Economic Outcomes? Journal of Economic Perspectives 20(2): 23-48.
- Hannerz, Ulf (1992): Cultural Complexity. Studies in the Social Organization of Meaning, New York: Columbia University Press.

- Harris, Marvin (1979): Cultural Materialism: The Struggle for a Science of Culture, New York: Random House.
- Headland, Thomas et al., eds. (1990): Emics and Etics. The Insider/Outsider Debate, Newbury Park et al.: Sage.
- Heilmann, Sebastian (2008): From Local Experiments to National Policy: The Origins of China's Distinctive Policy Process, The China Journal 59: 1-32.
- Herrmann-Pillath, Carsten (1994): China's Transition to the Market: A Paradox of Transformation and Its Institutionalist Solution, in: H.-J. Wagener, ed., The Political Economy of Transformation, Heidelberg (Physica), 209-241.
- Herrmann-Pillath, Carsten (2000): Strange Notes on Modern Statistics and Traditional Popular Religion in China: Further Reflections on the Importance of Sinology for Social Science as Applied to China, in: Mende, L. von/Siebert, M., Hrsg., Ad Seres et Tungusos Festschrift für Martin Grimm, Wiesbaden: Harrassowitz Verlag, 171-189.
- Herrmann-Pillath, Carsten (2006): Cultural Species and Institutional Change in China, in: Journal of Economic Issues XL(3): 539-574.
- Herrmann-Pillath, Carsten (2009a): China's Path-dependent Transition: Culture Mediating Between Market and Socialism, in: Janos Kornai and Qian Yingyi, ed., Market and Socialism in the Light of the Experiences of China and Vietnam, International Economic Association conference volume 146, London: Palgrave, 110-134.
- Herrmann-Pillath, Carsten (2009b): Social Capital, Chinese Style: Individualism, Relational Collectivism and the Cultural Embeddedness of the Institutions-Performance Link, in: The China Economic Journal, Volume 2(3): 325 350.
- Herrmann-Pillath, Carsten (2010a): A Neurolinguistic Approach to Performativity in Economics, Journal of Economic Methodology 17(3): 241-260.
- Herrmann-Pillath, Carsten (2010b): What Have We Learnt From Twenty Years of Economic Research Into Culture? in: International Journal of Cultural Studies 13(4): 317-335.
- Herrmann-Pillath, Carsten (2012): Institutions, Distributed Cognition and Agency: Rule-following as Performative Action, forthcoming: Journal of Economic Methodology.
- Herrmann-Pillath, Carsten / Feng Xingyuan (2004): Competitive Governments, Fiscal Arrangements and the Provision of Local Public Infrastructure in China: A Theory-driven Study of Gujiao Municipality, in: China Informa-tion, Vol. 18/3, 373-428
- Herrmann-Pillath, Carsten, Alexander Libman and Yu Xiaofan (2011): Market Integration, Politics and Culture: The Spatial Reach of Markets in Hyper-Growth China, SSRN: http://ssrn.com/abstract=1869964
- Hinner, Michael B. ed. (2007): The Influence of Culture in the World of Business, Frankfurt: Lang.
- Hofstede, Geert (1991): Cultures and Organizations. Software of the Mind, London et al.: McGraw-Hill.
- Hofstede, Geert (2007): Cultural Constraints in Management Theories, in: Hinner (2007).
- Holz, Carsten (2008): China's 2004 Economic Census and 2006 Benchmark Revision of GDP Statistics: More Questions Than Answers? The China Quarterly 193: 150-163.
- Huang, Philip C.C. (2008): Centralized Minimalism: Semiformal Governance by Quasi Officials and Dispute Resolution in China, Modern China 34(1): 9-35.
- Hutchins, Edwin (1995): Cognition in the Wild, Cambridge and London: MIT Press.
- Ingold, Tim (1986): Evolution and Social Life, Cambridge et al.: Cambridge University Press.
- Ji Li-Jun / Nisbett, Richard E. / Peng, Kaiping (2000): Culture, Control, and Perception of Relationships in the Environment, Journal of Personality and Social Psychology 78(5): 943-955.

- Ji Li-Jun / Nisbett, Richard E. / Zhang, Zhiyong (2004): Is It Culture or Is It Language? Examination of Language Effects in Cross-Cultural Research on Categorization, Journal of Personality and Social Psychology 87(1): 57-65.
- Jones, Eric L. (2006): Cultures Merging. An Historical and Economic Critique of Culture, Princeton: Princeton University Press.
- King, Ambrose Yeo-chi (1994): Kuan-hsi and Network Building: A Sociological Interpretation, in: Tu Weiming, ed. (1994): The Living Tree. The Changing Meaning of Being Chinese Today, Stanford: Stanford University Press.: 109-126.
- Kipnis, Andrew (1996): The Language of Gifts: Managing Guanxi in a North China Village, Modern China 22(3): 285-314.
- Kipnis, Andrew (2002): Practices of Guanxi Production and Ganqing Avoidance, in: Gold et al. (2002): 21-36.
- Kipnis, Andrew (2006): Suzhi: A Keyword Approach, The China Quarterly 186: 295-313.
- Kuran, Timur (2009): Explaining the Economic Trajectories of Civilizations: The Systemic Approach, Journal of Economic Behavior & Organization 71: 593-605.
- La Porta, Rafael / Lopez-de-Silvanes, Florencio / Shleifer, Andrei / Vishny, Robert W. (1997): Legal Determinants of External Finance, Journal of Finance 52: 1131-1150.
- Landa, Janet T. (1994): Trust, Ethnicity, and Identity. Beyond the New Institutional Economics of Ethnic Trading Networks, Contract Law, and Gift-Exchange, Ann Arbor: Michigan UP.
- Landes, David S. (2006): Why Europe and the West? Why Not China? Journal of Economic Perspectives 20(2): 3-22
- Ledderose, Lothar (2000): Ten Thousand Things. Module and Mass Production in Chinese Art, Princeton: Princeton University Press.
- Li Hongbin / Rozelle, Scott (2003): Privatizing Rural China: Insider Privatization, Innovative Contracts and the Performance of Township Enterprises, in: The China Quarterly No. 176: 981-1005.
- Li Min (2008): The Differential Effects of Relational and Group Collectivism on Scial Motivation: Evidence From Two Cultures, http://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/881/D_Li_Min_a_200812. pdf?sequence=1
- Li Shaomin / Wu, Judy Jun (2007): Why China Thrives Despite Corruption, Far Eastern Economic Review 170(3): 24-28.
- Ma Debin (2011): Rock, Scissors, Paper: The Problem of Incentives and Information in the Traditional Chinese State and the Origin of the Great Divergence, Paper presented at the 16th IEA World Congress, Beijing, 2011.
- Mayhew, Anne (1994): Culture. In The Elgar Companion to Institutional and Evolutionary Economics, edited by Geoffrey Hodgson, Warren J. Samuels and Marc R. Tool, 115-9. Aldershot / Brookfield 1994: Edward Elgar.
- Mertha, Andrew C. (2005): China's "Soft" Centralization: Shifting Tiao/Kuai Authority Relations, The China Quarterly, 184: 791–810.
- Metzger, Thomas A. (1977): Escape From Predicament. Neo-Confucianism and China's Evolving Political Culture. New York: Columbia University Press.
- Murphy, Rachel (2004): Turning Peasants into Modern Chinese Citizens: "Population Quality" Discourse, Demographic Transition and Primary Education, The China Quarterly 177: 1-20.
- Nisbett, Robert (2003): The Geography of Thought: How Asians and Westerners Think Differently...and Why, New York: Free Press.

- Nisbett, Robert (2003): The Geography of Thought: How Asians and Westerners Think Differently...and Why, New York: Free Press.
- North, Douglass C. (1990): Institutions, Institutional Change, and Economic Performance, Cambridge et al.: Cambridge University Press.
- North, Douglass C. (2005): Understanding the Process of Economic Change, Princeton and Oxford: Princeton University Press.
- North, Douglass C. (2005): Understanding the Process of Economic Change, Princeton and Oxford: Princeton University Press.
- Pennarz, Johanna (1992): Mazu, Macht und Marktwirtschaft. Die religiöse Organisation im sozialen und ökonomischen Wandlungsprozeß der ländlichen Gesellschaft Taiwans, München: Akademischer Verlag.
- Pomeranz, Kenneth (2007): Orthopraxy, Orthodoxy, and the Godess(es) of Taishan, Modern China 33(1): 22-46.
- Pommeranz, Kenneth (2000): The Great Divergence. China, Europe, and the Making of the Modern World Economy, Princeton and Oxford: Princeton University Press.
- Potter, Sulamith Heins / Potter, Jack M. (1990): China's Peasants. The Anthropology of A Revolution, Cambridge et al.: Cambridge University Press.
- Qian Yingyi / Weingast, Barry R. (1996): China's Transition to Markets: Market-Preserving Federalism, Chinese Style, Policy Reform 1, 149–85.
- Quine, Willard Van Orman (1960): Word and Object, Cambridge: MIT Press.
- Ramo, Joshua Cooper (2004), The Beijing Consensus, The Foreign Policy Centre, London.
- Redding, S. Gordon (1990): The Spirit of Chinese Capitalism. Berlin and New York: de Gruyter.
- Redding, S. Gordon (1996): The Distinct Nature of Chinese Capitalism, The Pacific Review 9(3): 426-440.
- Rodrik, Dani (2007): One Economics, Many Recipes. Globalization, Institutions, and Economic Growth, Princeton and Oxford: Princeton UP.
- Ross, Don (2005): Economic Theory and Cognitive Science: Microexplanations, Cambridge and London: MIT Press.
- Ross, Don (2007): H. sapiens as Ecologically Special: What Does Language Contribute? Language Studies 29: 710-731.
- Saari, Jon L. (1982): Breaking the Hold of Tradition: The Self-Group Interface in Transitional China, in: Greenblatt et al. (1982): 28-67.
- Schantz, Richard, ed. (2004c): The Externalist Challenge, Berlin: de Gruyter.
- Schurmann, Franz 1966. Ideology and Organization in Communist China. Berkeley and Los Angeles: University of California Press.
- Searle, John R. (2005): What Is an Institution?, Journal of Institutional Economics 1(1): 1-22.
- Shavitt, Sharon / Torelli, Carlos J. / Riemer, Hila (2011): Horizontal and Vertical Individualism and Collectivism: Implications for Understanding Psychological Process, in: Gelfand et al. (2010): 309-350.
- Shue, Vivienne (1988): The Reach of the State. Sketches of the Chinese Body Politic, Stanford: Stanford University Press.
- Siu, Helen (1995): Community Festivals in Post-Mao South China: Economic Transformation and Cultural Improvisation, in: China Review 1995, eds. Lo Chi Kin, Suzanne Pepper, Tsui Kai Yuen, Hong Kong: Chinese University Press.
- Skinner, G. William (1964/65): Marketing and Social Structure in Rural China, Journal of Asian Studies 24: 3-43, 195-228, 363-399.

- Smyth, Russell (1997): The Township and Village Enterprise Sector as a Specific Example of Regionalism Some General Lessons for Socialist Transformation, in: Economic Systems, Vol. 21 (3): 235-265.
- Sterelny, Kim (2004): Externalism, Epistemic Artefacts and The Extended Mind, in: Schantz (2004c): 239-254.
- Sutton, Donald S. (2007): Ritual, Cultural Standardization, and Orthopraxy in China: Reconsidering James L. Watson's Ideas, Modern Cgina 33(1): 3-21.
- Tomba, Luigi (2004): Creating an Urban Middle Class: Social Engineering in Beijing, in The China Journal, No. 51, January 2004.
- Tsai, Lily L. (2002): Cadres, Temple and Lineage Institutions, and Governance in Rural China." The China Journal 48: 1-28.
- Tsai, Lily L. (2007): Accountability without Democracy, Solidary Groups and Public Goods Provision in Rural China, Cambridge: Cambridge University Press.
- Tu Weiming, ed. (1994): The Living Tree. The Changing Meaning of Being Chinese Today, Stanford: Stanford University Press.
- Wang Jing (2008): Brand New China. Advertising, Media, and Commercial Culture, Cambridge and London: Harvard University Press.
- Wank, David (1996): The Institutional Practice of Market Clientilism: Guanxi and Private Business in a South China City, The China Quarterly 144: 820-838.
- Wank, David (2002): Business-State Clientilism in China: Decline or Evolution? In: Gold et al. (2002): 97-115.
- Watson, James L. / Watson, Rubie S. (2004): Village Life in Hong Kong. Politics, Gender, and Ritual in the New Territories, Hong Kong: The Chinese University Press.
- Whyte, Martin King / Adams, Jennifer / Gaetano, Arianne, eds. (2010): One Country, Two Societies: Rural-Urban Inequality in Contemporary China, Cambridge, Mass.: Harvard University Press.
- Wong, R. Bin (1997): China Transformed. Historical Change and the Limits of European Experience, Ithaca: Cornell University Press.
- Yan, Yunxiang (1996): The Culture of Guanxi in a North China Village, The China Journal 35: 1-26.
- Yang Lien-sheng (1957): The Concept of Pao as a Basis for Social Relations in China, In Chinese Thought and Institutions edited by John K. Fairbank, Chicago: University of Chicago Press, 291-309.
- Yang, Mayfair Mei-hui (1994): Gifts, Favours and Banquets: The Art of Social Relationships in China, Ithaca: Cornell University Press.
- Yang, Mayfair Mei-hui (2002): The Resilience of Guanxi and its New Deployments: A Critique of Some New Guanxi Scholarship, The China Quarterly 170: 459-476.
- Yang, Mayfair Mei-hui (2007): Ritual Economy and Rural Capitalism with Chinese Characteristics, in: Cultural Politics in a Global Age: Uncertainty, Solidarity and Innovation. David Held and Henrietta Moore, editors. Oxford: Oneworld Publications, 2007, 226-223.
- Young, Alwyn (2000): The Razor's Edge: Distortions and Incremental Reform in the People's Rupublic of China, Quarterly Journal of Economics 115(4): 1091-135

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