

Theoretical Essays on the Political Economy of Cultural Industry and edia

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Dissertation

**Theoretical Essays on the Political Economy of Cultural
Industry and Media**

by

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requirements for the degree of
Doctor of Philosophy

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Abstract

Taking into account the contribution of cultural and creative sectors including the media to global production, the sound development of such industries should be paid more attention even in developing countries. The dissertation theoretically analyzes issues related to the development of cultural and media industries from the perspective of political economics.

Chapter 1 presents the overall structure of the dissertation and provides background information on the topics discussed in the subsequent chapters.

Chapter 2 reviews the existing literature on cultural economics and discusses the theoretical and empirical contributions to demand for cultural goods, including social factors (superstar theory, fashion and fads), consumption experience (cultivation of taste, rational addiction, learning-by-consuming, habit formation), and cultural transmission.

Chapter 3 proposes a simple dynamic monopolistic competition model to describe the protection of domestic cultural goods industries. A significant feature of cultural goods is the ambiguous distinction between producers and consumers. In particular, experience of quality when consuming various types of goods of different origins in young age produces prominent future creators. In the model, in a certain category of cultural goods, the amount of international variety consumed within a country in the current period determines the quality of the domestic creators in the next period of that country. Before globalization, the limited capacity of the domestic market meant that small countries could not consume as many international varieties as large countries, leading to lower-quality domestic creators. By contrast, globalization, which is considered to have caused a substantial decline of the costs of introduc-

ing foreign products and services, has increased the variety that consumers can consume, threatening domestic creators that are less competitive. The presented model shows that by implementing a moderate protection policy, a small country can gradually improve the quality of its domestic creators, sustaining their long-run survival and finally allowing them to stand on their own. In such a case, globalization can prove a greater boon to smaller countries. The heavy protection of domestic providers, however, which may result from a powerful political power, can hinder the long-run development of domestic cultural goods as well as harm consumer welfare. Indeed, it may even destroy the industry if an IT revolution takes place that makes the protection by the government completely void.

Chapters 4 and 5 focus on the media industry, especially the problems associated with its political independence, and argue that enhancing media independence cannot be understood as an easy agenda for developing countries.

Chapter 4 develops a theoretical model in which the mass media may be captured by a specific stratum of society, forcing them to manipulate public opinion in favor of the interests of this specific group. In the model, the specific group decides whether to capture the media by comparing the costs and benefits of doing so. To capture a media outlet, it must compensate for the loss of reputation that the media outlet suffers by not publishing the type of hard information high-quality media are more likely to find. Reputation is modeled as the posterior public belief about the quality of that media outlet, which is affected by a rational prior expectation of the public about the probability of media capture. If the public expects a higher prior probability

of media capture, the reputation loss for a media outlet by holding hard information is lower, since the public expects even quality media to act in this way. In turn, this fact implies that the necessary compensation to capture the media is lower. On the contrary, if the public expects a lower probability of media capture, presenting no hard information is more associated with lower quality and thereby the reputation loss and cost of capture are large. The model shows the possibility of multiple equilibria: one in which the media are trusted and the other in which media capture is stuck in a vicious cycle. In other words, both trusted and untrusted media should be understood as social phenomena with a self-fulfilling prophecy, not only the result of institutional and regulatory arrangements.

Chapter 5 presents a political agency model in which the policy choice by the incumbent policymaker can be distorted by the incentives to pander and discusses the influence of media independence. The incentive to pander to the electorate, namely to choose a policy popular among voters even though the policymaker knows that such a decision would be the wrong choice for the electorate, is considered to be weakened when independent media provide correct information about the consequences of the incumbent's policy choice prior to the election. Firstly, the model shows that this is true when the electorate rationally form beliefs about the type of incumbent and about their level of excellence. However, if the electorate have a strong motive to believe themselves to be excellent and resolve cognitive dissonance by distorting prior beliefs on some state variables in the process of Bayesian belief updating, greater media independence could worsen the situation.

Chapter 6 summarizes and concludes this dissertation and suggests future

directions for related research.

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Chapter 1

Introduction

1.1 Background

1.1.1 The Cultural Industry and Cultural Goods

Culture and creativity have increasingly become driving forces in the global market. From 2002 to 2008, world exports of creative/cultural goods and services expanded at an unprecedented average annual rate of 14.4%, from \$267.175 billion to \$592.079 billion, while exports of cultural services are growing at a rate of 17.1% annually. This trend of positive growth has taken place in all subgroups of cultural goods and all economic groups, namely developed, developing, and transition economies.¹ For instance, a U.S. survey of the copyright industry showed that the total value added of this sector contributed more than 11% to the growth in U.S. GDP from 2007 to 2010, while its proportion of employment represented over 8% of overall employment.² Besides the economic benefits derived from the manufacture of cultural goods and employment, the development of cultural industries also fosters social cohesion

¹ *Creative Economy Report 2010*, United Nations Conference on Trade and Development (referred to as UNCTAD hereafter), pp. 126–128.

² *Copyright Industries in the U.S. Economy: The 2011 Report*, Siwek, S. E., pp. 16–17.

by enhancing communication among different social groups, promotes gender balance by creating opportunities for growing female labor force participation, and assists sustainable development since it is environmentally friendly.

Considering about all these benefits, many countries have already taken actions to develop domestic cultural industries. Take China as an example. The cultural industry in Mainland China arose as a result of the country's economic reforms in the late 1970s. It was slowly developed by non-profit and public institutions in the mid-1980s, and later by market-seeking private institutions as a whole. This gradual development was then accelerated after the Party's Central Committee officially issued its policies for developing a socialist market economy and boosting its service industry in the 1990s. In 2000, the proposal of promoting the cultural industry by Premier Zhu Rongji was formally incorporated into China's tenth five-year plan, which was approved by the National People's Congress in 2001. In 2006, the Chinese government published its *Outline for Cultural Development in the Eleventh Five-year Plan*, in which the promotion of the cultural industry was integral. Thus far, it has issued and implemented a series of specific policies related to tax preferences (2006, 2007), the introduction of foreign capital (2005), and the export and import of cultural goods (2004, 2005).

As a sunrise industry, the cultural sector has been attracting increasing attention from economists. Scholars in this domain have paid particular attention to cultural goods, namely the products from the cultural industry that provide a tangible and commercial form of culture. The political term "cultural exception" was first introduced in 1993 by France in its General Agreement on Tariffs and Trade (GATT) negotiations to limit the free trade

of culture in order to protect indigenous cultural traits. Cultural exception argues that cultural goods and services should be exceptions in international agreements and treaties, and this suggestion has led to heated debate about whether cultural products should be treated differently from other commercial goods. Indeed, in 2005, UNESCO implemented a convention to protect cultural diversity, which allows member states to exclude cultural goods and services from international trade agreements.

Cultural goods also deserve special attention because of their contrasting characteristics compared with general commercial goods. For example, cultural goods are “experience goods.” For instance, consumers are uncertain about the quality of a novel or whether they might like it before actually reading it. This fact implies that consumers cannot order their preferences, as assumed by neoclassical consumption theory. Rather, consumers’ purchase decisions are more affected by advertising, product reputation, recommendations from acquaintances, or reviews on the Internet. On the other hand, the distinction between producers and consumers of cultural goods is much more ambiguous because culture is shared and created by the public and the exchange of ideas and content has quickened owing to the development of communication technologies. Moreover, in an era of globalization, 10% of cultural goods could account for 90% of the market because of their increasing returns to scale and declining transport costs. Although expanding, research about culture or cultural goods from an economics perspective remains inadequate.

While no consensus has been reached on the definition of cultural goods, our understanding shares some common points. Cultural goods require the input of human creativity, transfer symbolic messages, and possess cultural

value, while they are typically protected by copyright. In this dissertation, we treat cultural goods as those products from the cultural industry, which was classified into heritage, art, media, and functional creation by UNCTAD in 2008. A parallel term, creative goods, emerged and began to be used in 1994. We use cultural goods/industry and creative goods/industry interchangeably herein.

1.1.2 Mass Media and Media Capture

While our motivation is to examine general cultural goods, the focus of this dissertation later moves onto a specific subgroup of cultural goods, the media. The mass media significantly influence various political outcomes because they provide the public with most of the information they use for decision-making, such as in elections. Further, the mass media reach a vast audience in various forms, including publishing media such as newspapers, books and pamphlets; audio media such as television, film, and music; and outdoor media such as billboards and signs.

The impact of the mass media on audiences has changed markedly over time. At the beginning of the 20th century, the political attitudes of the masses were strongly manipulated by the mass media (see the example of the Nazi party in Germany). Audiences could not seem to escape the influence of the mass media. In the mid-20th century, the theory of the “minimal effects” of the media emerged, which argued that the mass media could not directly change audiences’ political behavior such as voting, but instead attempted to reinforce their prior beliefs. In particular, the media affect audiences’ agenda setting (i.e., what audiences know and may be interested in) by reporting

some issues but not others. Nowadays, with the rising partisanship of the media, one of their goals is to persuade audiences. Meanwhile, the mass media play a role in intensifying audiences' preexisting beliefs, since audiences tend to selectively be exposed to like-minded news and information. The main psychological explanation of selective exposure is cognitive dissonance, which is explained in the next subsection. In short, the mass media typically affect the beliefs of audiences, although audiences have been playing a more active role given the increasing choice of media sources.

Considering the important role of the mass media to audiences, issues such as media bias and media capture have come to political economists' attention. A media-captured outlet is typically one that is bribed or threatened in order to tailor its reports to cater to certain individuals or groups by means of fostering positive coverage, holding back negative information, and so on. In this sense, media capture influences political outcomes by affecting the information that the public obtain. Previous studies have shown the effects of media capture on various aspects such as political accountability, the turnover of politicians, public policies, and political inequality.

1.1.3 Cognitive Dissonance

In psychology, cognitive dissonance refers to a situation in which conflicting ideas, beliefs, attitudes, or behaviors are involved. Individuals suffer mental stress or discomfort when holding two or more contradictory beliefs, ideas, or values or when confronting new information that is inconsistent with their existing beliefs, ideas, or values. The theory of cognitive dissonance was developed by Festinger in the 1950s and first introduced to economic modeling

by Akerlof and Dickens in 1982. The foundational assumption of cognitive dissonance theory is that individuals seek cognitive consistency. When inconsistency arises, they become psychologically uncomfortable and are motivated to reduce this dissonance by alternating preexisting cognition or behaviors or by actively avoiding situations and denying information that may increase it.

A classic illustration of cognitive dissonance is the fable *The fox and the grapes*. A fox wishes to eat some grapes that hang high on a tree. After trying many times and failing, it finally realizes that it is unable to reach the grapes and justifies its failure in behavior by considering the grapes to be sour and thus not worth eating. The fox adjusts its prior belief towards the grapes to maintain mental consistency between the fact that it cannot reach the grapes and the updated belief that they are not worth eating in any case.

This theory was first investigated in a classical experiment by Festinger and Carlsmith in 1959. In their experiment, they required 71 students to spend one hour on very boring tasks, after which some students were asked to persuade new participants to take part in the experiment by advocating that the tasks were interesting. Some students were paid 1\$ to persuade, while others received 20\$. Compared with high-paid students, the students with lower rewards could not find enough external justifications for their behavior and therefore experienced more dissonance. To reduce such dissonance, they tended to think the tasks were more interesting or meaningful than the high-paid students did.

The magnitude of dissonance increases with how important the subject is, how strongly beliefs and actions conflict, and how difficult it is to reduce the degree of dissonance. Dissonance is most powerful when it refers to self-

identity or self-image. Cognitive dissonance takes place in people' daily lives, especially when people confront new situations and information.

1.2 Focus and Motivation of the Dissertation

1.2.1 Globalization and Minor Cultures

A few types of cultural goods may dominate the market and threaten the survival of minor cultural goods. In 2008, the top 10 exporters accounted for 69.3% of total exports of cultural goods in the world market.³ Take movies as an example. According to Miller and Maxwell (2006), “by 2000, Hollywood’s proportion of the world market was twice as great as 1990 [...] For 2001 and 2002, all the top twenty films in the world were from the US [...] In 2002, Hollywood box office overall increased by 13.2 per cent, the largest growth in two decades” (p. 36).

Following major research in this field that argues that globalization harms cultural diversity, countries including Canada, France, and China have taken actions to protect their indigenous cultural goods. However, we note that minor countries such as South Korea have risen in the global market. Between 1999 and 2008, total exports of the cultural products of South Korea tripled to \$1.8 billion, while the economy only grew at an annual average of 5.3%.⁴

In academic research, although the negative effects of globalization on diminishing cultural identity have been emphasized, some positive effects have still been advocated. For example, Cowen (2002) observed that the creativity

³UNCTAD 2010: 132.

⁴Data sources: The Economist (2010), *South Korea’s pop-cultural exports: Hallyu, Yeah!* [on-line] Available at <http://www.economist.com/node/15385735>.

of minor cultures temporarily booms during the early period of inter-cultural contact. Similarly, Niebuhr (2010) argued that the cultural diversity of group members enhances the performance of R&D. On the opposite side, Rauch and Trindade (2009) presented a model to show that a dominant cultural style will take over the world market, considering the positive externality of cultural goods, while Bala and Van Long (2005) argued that a large enough country will take over the preferences of a small country through a process of endogenous preference evolution.

Inspired by contrasting real-life situations and academic arguments, our research questions are specified as follows: how does globalization affect minor cultural goods/cultures and what kinds of protection policies should be applied by minor economies to sustain their indigenous cultures/cultural goods?

1.2.2 Media Capture and Beliefs

The influence of media capture is recognized in many aspects of politics. Petrova (2008) demonstrated that by media capture income inequality in an economy can lead to political inequality. Besley and Prat (2006) examined how ownership concentration influences media capture and argued that pluralism makes media capture more difficult. Brunetti and Weder (2003) showed a significant relationship between press freedom and corruption.

However, most studies in political economics treat the cost of media capture exogenously to our best knowledge. Besley and Prat (2006), for instance, endogenize the extent of media capture. In their work, the cost of media capture was modeled as “a minimum total cost of information suppression.” In other words, the cost of capturing an outlet equals the pecuniary value of

the whole market by assuming that non-captured media outlets obtain and share all demand. Therefore, the capture cost of a politician is the sum of the pecuniary value of each outlet, that is, n multiplied by total demand if there are n media outlets and all of them are homogeneous. While this framework is quite intuitive, we provide a contrasting framework to endogenize the cost of media capture in this study.

Beliefs have a role in influencing media capture. Firstly, audiences' prior beliefs about media capture affect the extent to which they trust media reports. In the case when a media outlet stays silent, audiences with high expectations of media capture may infer that truthful information has already been suppressed. Secondly, the reputation of a media outlet is basically audiences' prior beliefs about it. Reputation is especially important in determining demand for the mass media by affecting both the commercial profits from consumers and the financial receipts from advertising. The product of news media, namely news, is also an experience good. Before actually consuming it, audiences are uncertain about its quality. Then on which factors do consumers base their purchase decisions? These factors are likely to include consumers' own prior beliefs of the newspaper and acquaintances' evaluations (i.e., reputation), which both come from prior newspaper performance. For consumers, it is less risky and time-saving to choose a reputable newspaper.

Given the foregoing, we examine the relation between the beliefs of the majority towards media capture and the actual extent of media capture. Relating beliefs to the extent of media capture is especially interesting because in cultural economics, culture affects economic outcomes by influencing people's beliefs and preferences.

1.2.3 Cognitive Dissonance and Media Capture

The theory of cognitive dissonance provides a perspective to capture how individuals deal with information, especially information that is inconsistent with their prior beliefs. Gilad *et al.* (1987) suggested three decision-making processes affected by cognitive dissonance: 1) prior hypothesis bias, which means that “a prior belief regarding the state of the world leads to ignore disconfirming information;” 2) adjustment and anchoring, which mean that initial estimates serve as an anchor and that they are revised according to the availability of new information (not all available information is used in this case); and 3) negative information is inappropriately discounted.

When dealing with consumers’ prior beliefs, the findings of previous studies suggest that media bias occurs because audiences prefer like-minded news. However, cognitive dissonance theory assists us to realize that when media information is not in line with audiences’ prior beliefs, they may distort or adjust some of their beliefs to resolve the cognitive dissonance.

Our focus in Chapter 5 is to analyze the effects of media independence by incorporating perspectives from social psychology. More specifically, we assess whether the independence of the media is still effective after incorporating the role of cognitive dissonance.

1.3 Main Results and Research Contribution

Chapter 2 reviews the existing literature in the field of cultural economics and provides an annotated bibliography of theoretical research on the consumption of cultural goods. Researchers in this field have focused on issues at

three levels: the interaction between culture and the economy, the industrial characteristics of the cultural industry and related cultural policy, and the consumption and international trade of cultural goods. Besides the determinants suggested by neoclassical consumer theory, social factors (superstar theory, fashion and fads), consumption experience (cultivation of taste, rational addiction, learning-by-consuming, habit formation), and cultural transmission may also affect the consumption of cultural goods. The literature review in this chapter directs our focus at the research questions of Chapters 3 and 4, while the survey on the consumption of cultural goods provides observations for the subsequent analysis.

Chapter 3 argues that globalization might be one reason for the disappearance of minor cultures/cultural goods, but not the primary one. Instead, globalization unexpectedly provides an opportunity for minor countries to enhance their competitiveness. With continuing moderate protection policies, minor cultural goods can gradually bridge the quality gap to major cultural goods and survive on their own, ultimately eschewing protection from the government. Surprisingly, too heavy protection policies halt the growth in the quality of domestic cultural goods and correspondingly damage the domestic creator's ability to survive on his or her own.

Observing that individual consumers of cultural goods, through the actual manufacture of new cultural items or simple word-of-mouth transmission of ideas, can be seen as the ultimate inspiration for subsequent developments in cultural goods as well as that globalization, manifested as a dramatic decline in transportation costs, introduces a richer menu of choices to domestic consumers, we present a quality evolution mechanism for the regional production

of cultural goods. In this mechanism, a consumer's consumption experience today affects the quality of cultural goods tomorrow because when consumers become producers or contributors, they draw on the stock of ideas from past experience of cultural consumption.

Chapter 4 argues that in a society the level of media capture is affected by people's beliefs towards it. We endogenize the cost of a media outlet being captured as a monetary loss from a loss of reputation, while reputation is modeled as consumers' beliefs about the quality of this outlet. Reputation actually plays a substantial role in determining demand for the mass media since mass media products, say newspapers, are experience goods. Because consumers cannot easily evaluate the quality of a newspaper before they actually read it, their purchase decision mainly depends on their prior expectations of the newspaper.

Our results show the existence of multiple equilibria, which implies that prior beliefs, independent of all other economic variables, may determine the level of media capture in society. This finding may help introduce cultural explanation to the level of media capture since culture, in cultural economics, is defined as shared beliefs and preferences.

Chapter 5 presents a two-period political agency model that analyzes the role of media independence on incumbents' policy choices. Our model shows that rising media independence helps resist "pandering" by weakening incumbents' motivation to do so in the case of rational audiences. However, if the electorate strongly stick to their preexisting beliefs of being excellent, contrasting reports from the media about the true state of the world cause cognitive dissonance, which is severer if the media are more independent. In the process

of alleviating this dissonance, the electorate are supposed to distort their prior beliefs about some state variables. This distortion may lead them to have more negative judgments on those incumbents that choose unpopular but actually efficient policies. In this scenario, incumbents have more motivation to pander if the media are more independent.

Chapter 2

Cultural Economics and the Consumption of Cultural Goods

2.1 Introduction

After the publishing of *Performing Arts: The Economic Dilemma*, written by William J. Baumol and William G. Bowen in 1966, researchers began studying the economics of art, and then later, the field of cultural economics. Although the scope of the field has since broadened, there is still no generally agreed upon definition of cultural economics. In 2000, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) proposed that the notion of cultural industries, which include printing, publishing and multimedia, audio-visual, phonographic and cinematographic productions, as well as crafts and design. In 2008, UNCTAD classified creative industries into four groups: heritage, arts, media, and functional creations. These groups were then further divided into nine subgroups: cultural sites, traditional cultural expressions, performing arts, audiovisuals, new media, creative services, design, publishing and printed media, and visual arts. We refer to products

that are produced by these industries as cultural goods. Cultural goods have a significant economic impact. In comparison with other commercial products, the production and consumption of cultural goods bring more cultural and social significance. For an individual country, enhancing the development of cultural industries boosts the economy, promotes a cultural identity, and strengthens social cohesion. Globally, promoting countries' domestic cultural production helps to maintain indigenous cultural traits and, thus, worldwide cultural diversity. Therefore, cultural economics is a field worth researching.

The volume of cultural economics literature has expanded significantly during the last half century. Existing research includes the fields of sociology, public finance, welfare economics, public choice theory, media economics, and so on. Although Blaug (2001) and Gibson and Kong (2005) provide an insightful review of cultural economics literature, there have been many subsequent studies in this field. Thus, this chapter provides an updated review of research from selected sources.¹ As an aid to future analyses, we create a general literature map of topics in cultural economics.

Among all the topics in cultural economics, we focus on the consumption of cultural goods because cultural goods present characteristics that neoclassical demand theory does not explain well. The demand analysis in neoclassical theory assumes that consumption choice is determined mainly by relative prices, subject to the constraint of income, and that consumers can order their preference and fully observe the market. However, cultural goods are types of "experience goods." In general, before consuming these goods, consumers do not know either whether they will like them or the quality of the good.

¹The main sources of this review are the *Journal of Cultural Economics* and the *American Economic Review*, among others.

As a result, before making a consumption choice, consumers may search for information on the experiences of others or look for reviews on the Internet and other resources. In this sense, the consumption decision is influenced by social opinion. In other words, consumers care about the social effects of their consumption decision, although they may also rely on their own experience in the consuming process. Thus, the reputation of artists or products plays an important role in the consumption of cultural goods. Being “experience goods” also suggests that greater levels of consumption mean a greater level of appreciation (Adler 1985). Therefore, consumers’ experiences may cultivate their taste. In this sense, consumers’ preferences, or tastes, are not fixed, but instead are endogenous.

Another significant feature of cultural goods is that the distinction between producers and consumers is ambiguous. Culture is shared and created by the public in a society. The consumer of cultural goods could be the creator or contributor of future cultural goods. In other words, the consumption experience of general consumers can be seen as the inspiration for the subsequent creation of cultural goods, especially in an era with advanced information and communication technology. For example, suppose an individual posts a review of a movie on the Internet. Via the Internet, ideas in the review are shared, and may be exchanged among various audiences. Thus, it is possible that these ideas will inspire the creation of other movies.

This chapter also presents an annotated bibliography of studies on the consumption of cultural goods. Based on the methodology employed, we review empirical research and theoretical research separately. Surprisingly, it seems that the focus of research in each category is quite different. We believe

that a better understanding of the consumption of cultural goods will help to incorporate insights into future analyses.

2.2 Cultural Economics

Before turning our attention to studies related to the consumption of cultural goods, we consider a general view of cultural economics. Figure 2.1 presents a simple literature map of topics in cultural economics. Generally speaking, studies are conducted at three levels. At the macro level, the interaction, and particularly the causality between culture and economics is studied. Does culture affect economic outcomes, and in what way? Are there any cultural consequences of economic activities? Bowles (1998) reviewed the cultural consequences of markets and other economic institutions. Among the studies that find that culture does affect economics, it is generally agreed that this occurs by affecting individuals' preferences and prior beliefs, such as trust. Guiso *et al.* (2006) reviewed a number of studies in this line. Culture may also benefit the economy by stimulating innovation, which is boosted by cultural diversity, and accumulating cultural capital. Throsby (1999) defined cultural capital as “an asset that contributes to cultural value. More precisely, cultural capital is the stock of cultural value embodied in an asset [...] The stock of tangible cultural capital assets exists in buildings, structures, sites and locations endowed with cultural significance and artworks and artifacts [...] Intangible cultural capital ... comprises the set of ideas, practices, beliefs, traditions, and values which serve to identify and bind together a given group of people” (pp. 6–7). With regard to culture itself, research has been conducted on cultural transmission, creativity, and education.

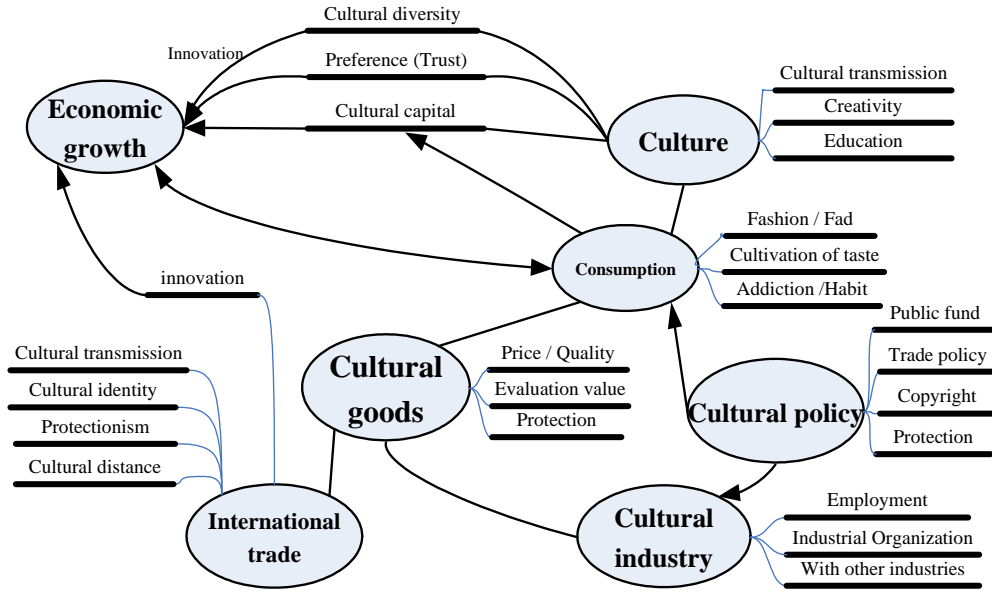


Figure 2-1: A simple literature map of cultural economics

At the industrial level, studies focus on the effects of competition, the structure of markets, and the employment of artists. These studies also examine cultural policies, which are divided into domestic policies and trade policies. The trade policy of an economy reflects its position between free trade and protectionism. Studies on cultural policies are generally related to public funds (subsidies and public goods), copyrights (digital technology and regulation), domestic protection (quotas), and so on.

The remaining studies are mainly about cultural goods. These studies examine, for example: 1) whether cultural goods should be treated differently (Mas-colell 1999); 2) what determines the production and consumption of cultural goods; 3) how to evaluate their price, quality, and value; and 4) the cultural consequences of trading in cultural goods?

2.3 Consumption of Cultural Goods

2.3.1 Empirical Research

Since the creative industries are too vast in scope, it is difficult, even meaningless, for empirical research to treat these industries as a whole. Thus, most empirical studies focus on a specific sector (see Table 2.1).

It seems most studies related to cultural goods focus specifically on the consumption of cultural goods. Thus, we divide research on consumption into the following three subcategories.

- 1) An analysis of consumption/demand of specific kinds of cultural goods in a specific region, for example the United Kingdom (Cameron 1990) and Brazil (Diniz and Machado 2011).

- 2) The relationship between a specific factor and the consumption choice, such as the perception of quality (Abb-Decarroux 1994), expert judgments (Ashworth *et al.* 2010), word of mouth (Beck 2007), and price (Nahm 2010).

- 3) Examining specific theories, such as rational addiction (Becker *et al.* 1991), the superstar theory (Crain and Tollison 2002), disease cost, and the cultivation of taste (Alderighi and Lorenzini 2012).

Other studies investigate the market features of cultural goods, such as analyzing their quality, estimating their value, determining their price, and evaluating the product diversity. Empirical research conducted at the industry level include studies on copyrights, cultural policies, the employment of artists, industrial concentration and divergence, and market competition. Then, at the macro level, researchers have examined topics such as cultural clusters, regional culture, cultural values, and cultural capital.

No.	Sector	Empirical Literature
1	Cinema	Cameron (1990)
2	Museum	Martin (1994), Jaffry and Apostolakis (2011)
3	Theater	Throsby (1990), Lévy-Garboua and Montmarquette (1996), Urrutiaguer (2002), Last and Wetzel (2010), Redondo and Holbrook (2010)
4	Television	Li and Chiang (2001), van der Wurff (2005), Liu <i>et al.</i> (2006)
5	Motion picture	De Vany and Walls (1997, 1999), Ginsburgh and Weyers (1999), De Vany and Lee (2001), Marvasti and Canterbury (2005), Walls (2005, 2010), Bi and Giles (2009), Chisholm and Norman (2006, 2012)
6	Music	Cox <i>et al.</i> (1995), Burke (1996), Crain and Tollison (2002), Montoro-Pons and Cuadrado-Garcia (2011), Asai (2011)
7	Video game	Aoyama and Izushi (2003), Cox (2008)
8	Performing art	Felton (1992), Abb-Decarroux (1994), Krebs and Pommerhne (1995), Heilbrun (2001)
9	Art	Ekelund <i>et al.</i> (1998, 2000), Ashenfelter and Graddy (2003), Frank (2008), Nahm (2010), Boyle <i>et al.</i> (2010)
10	Publishing media	Benhamou and Peltier (2007), Beck (2007), Ashworth <i>et al.</i> (2010)
11	Tourism	Nicolau (2010)
12	Festival	Frey(1994), Crompton and McKay (1997), Snowball (2005)
13	General	Marvasti (1994), Diniz and Machado (2011), Alderighi and Lorenzini (2012)

Table 2.1: Selected empirical literature in specific sectors

2.3.2 Theoretical Research

Similarly to empirical studies, theoretical studies also examine what determines the consumption/demand of cultural goods, but in a quite different manner. In this regard, theoretical research has offered insightful opinions. For example, traditional research treats preferences as an exogenous variable. In contrast, Stiglizer and Becker (1977) endogenized preferences as an optimization of common utility functions, incorporating the investment of time among activities as a parameter. This approach spawned a large group of studies that endogenized variables such as belief and tastes in a rational agenda. Adler (1985) suggested that the consumption of music is affected by the societal popularity of artists, while Veblen (1899) emphasized the “conspicuous consumption” of products such as fashion, one type of cultural goods. Here we provide an annotated bibliography of related theories, including those on consumption capital, the superstar theory, fashion and fads, rational addiction, habit formation, cultivation of taste, learning-by-consuming, and cultural transmission. These theories are categorized into three types: consumption experience, social factors, and cultural transmission.

1) Consumption Experience

Consumption Experience

Stigler and Becker (1977), in their well-known paper *De gustibus non est disputandum*, offered an alternative explanation to four phenomena that are widely believed to be inconsistent with the stability of tastes: addiction, habitual behavior, advertising, and fashion. They proposed a hypothesis that “widespread and/or persistent human behavior can be explained by a generalized calculus of utility-maximizing behavior, without introducing the qual-

ification ‘tastes remaining the same’ ” (p. 76). In a simpler way, “one may usefully treat tastes as stable over time and similar among people” (Towse 2010: 153). The most interesting part of their model is that consumers maximize their utility function of “choice” (instead of goods and services), while each choice is produced with market goods and services, time, skills, human capital, and other inputs. Subsequently, the price of market goods and the real income of a household can be replaced by the shadow price of “choice,” which is determined by the costs of production, and full income, which includes the value of “time,” respectively. A greater previous investment means there is a lower “time cost.” Based on these assumptions, they proved that the four aforementioned phenomena could be explained by utility-maximizing behavior. This is a breakthrough work that stimulates research hereafter. However, a drawback of the theory is that it cannot explain the sudden conversion of a consumer’s choice.

Rational Addiction Theory

Becker and Murphy (1988), based on the research of Stigler and Becker (1977), explored the dynamic behavior in the consumption of addictive goods. In this research, consumers are aware of the addictive nature of their choice. The full price of addictive consumption goods includes the current monetary price and cost of future addiction. Thus, both past consumption and future consumption affect the current consumption choice. In addition, if the gain from consuming goods such as cigarettes exceeds the cost, an individual will continue consuming the good. Their model subsequently becomes a standard approach to modeling the consumption of addictive goods. Moreover, their argument was supported by Becker, Grossman, and Murphy (1991), who further

analyzed the effect of price on the consumption of drugs. In their subsequent paper (BGM 1994), they test and support the main argument of Stigler and Becker (1977). As in the case of Stigler and Becker (1977), these studies remove the qualification that taste should remain the same. Although cultural goods are not commonly believed to be addictive goods, the ideas of “rational choice” and “adjacent complementary” can be still used when modeling cultural goods.

Habit Formation Theory

Literature on habit formation theory can be traced back to the 1970s. Most research in this field is on how habit formation affects consumption/demand. Spinnewyn (1981) discussed consumers’ demand under rational habit formation: “If consumer tastes change endogenously through habit stock depending on past consumption, the rational consumer will make allowance of the future habit forming effects of current consumption” (p. 91). Dynan (2000) related habits to the evolution of consumption over time. In the latter theory, past consumption endogenously changes taste through habit formation.

Cultivation of Taste

In Stigler and Becker (1977), individual behavior is not explained by unobservable differences in taste. However, McCain considered tastes to be endogenous. He first reflected on the cultivation of taste in his 1979 research. He admitted cultivation of taste to the demand theory by building a relationship between the perceived quantity and the physical quantity, in a similar way to Stigler and Becker. Then, McCain (1981) explored the implications of cultivation of taste for the demand of art using a similar setting to McCain (1979), although using different postulates. The latter research may provide inspira-

tion for studies in the field of fashion and fads, as it shares some similarities with studies in this field. Later, McCain introduced game theory (McCain 1986) and bounded rationality (McCain 1995) to his theory of cultivation of taste. His research suggests that public policy, such as education and subsidies, can protect domestic culture because education about domestic culture may cultivate a taste bias towards indigenous culture.

Learning-by-Consuming

Just like the theory of cultivation of taste, learning-by-consuming emphasizes that consumers learn their preferences through a cumulative process of consumption experience. Brito and Barros (2005) analyzed the implications of learning-by-consuming for the dynamics of price and the demand for cultural goods by combining the idea of endogenous taste from cultivation of taste theory and the model setting (of adjacent complementary) from the rational addiction theory.

2) Social Factors

Superstar Theory

Rosen (1981) analyzed the phenomenon of superstardom, wherein small numbers of people dominate a large part of the market. He demonstrated that a small difference in artistic quality induces a large difference in earning, under the conditions of low transfer costs and production economies of scale. Becker and Murphy (2000) extended Rosen's research by asserting that even without production economies of scale, the social market also magnifies small differences in quality and causes the superstar phenomenon.

Adler (1985) assumed that the more consumers know about music, the better they can appreciate it. In other words, the consumption of cultural goods

requires knowledge. People gain knowledge through consumption and/or discussion with knowledgeable individuals. Since the search cost associated with finding those knowledgeable about most popular cultural goods is minimal, the customer is better off buying the “star” cultural goods. Based on this logic, the “star” cultural goods need not possess higher quality. In this sense, popularity depends on something other than quality, for example luck. His theory provides insight into the question of why somebody becomes a superstar. However, it cannot explain the phenomenon in which new superstars emerge and replace previous superstars. The emergence of new superstars could be explained by the discount of consumption capital, consumers’ chasing novelty, or trends in fashion and fads.

Fashion and Fads

Karni and Schmeidler (1990) proposed that the consumption of many commodities is partly a social activity. He applied neoclassical consumer theory to explain phenomena such as fashion and advertisements by incorporating social attributes into the standard definition of a commodity. Becker and Murphy (2000) demonstrated how social factors make fashion and fads happen. They separated consumers into leaders and followers. Leaders tend to be distinguished from followers, who always follow the leaders’ choice. The interaction between leaders and followers explains the dynamics of fashion and fads. Moreover, they constructed a model to explain how when social pressure is strong enough, the demand for fashionable products increases, even when the price increases. Veblen (1899) explained the phenomenon of “conspicuous consumption” in his book titled *The theory of the leisure class*, in which he argued that consumers make many consumption choices just to be able to

show off.

3) Cultural Transmission

Culture and Cultural Transmission

The causality between culture and economics is still under debate. Taking the cultural aspect of cultural goods into account, some studies have analyzed the consequences of consuming cultural goods. Maystre *et al.* (2014) analyzed product-based cultural changes by assuming that the consumption of differentiated goods endogenously shapes individuals' values and produces cultural distance. Subsequently, the distribution of preferences and the supply of goods are co-determined in the long run. They thus argued that the integration of product market reduces cultural distance. Based on their findings, it may be worth studying the implications of consuming cultural goods for cultural transmission by considering the characteristics of cultural goods. This may be a contribution to the theory of cultural transmission, since the standard dynamics of cultural transmission in existing research are driven by vertical effects from parents and horizontal effects from peers.

Bisin and Verdier (1998) studied the intergenerational transmission of cultural traits and preferences for "social status." Parents transfer their cultural traits, status preferences, or non-status preferences to their children. Only under some conditions is there a stable equilibrium wherein both status and non-status preferences coexist. They develop a mechanism of cultural transmission, which they apply in their coming paper.

Bisin and Verdier (2000) later turned their attention to the intergenerational transmission of ethnic and religious traits through socialization and marriage. Minority groups, as compared with majority groups, always devote

more effort to searching for identical mates and to socializing their children. In this way, there forms a stable distribution of different traits among the population in the long run. In 2001, they published another paper to consolidate the same mechanism. Then, Bisin *et al.* (2009) extended their binary-trait theory to a multiple-trait theory, and in 2010, they reviewed research in the field of cultural transmission. Cultural transmission plays a role in determining many preference traits such as altruism and discounting, and most cultural traits such as attitudes towards family.

2.4 Conclusion

In this chapter, we reviewed existing literature in the field of cultural economics to present an overview of the field. We also provided an annotated bibliography of related research on the consumption of cultural goods. Researchers work on three different levels: the interaction between culture and economic outcomes, the industrial characteristics of the cultural industry and related cultural policies, and the consumption/international trade of cultural goods. In addition to determinants derived from neoclassical consumer theory, the consumption choice of cultural goods may also be affected by social factors (superstar theory, fashion and fads), the consumption experience (cultivation of taste, rational addiction, learning-by-consuming, habit formation), and cultural transmission.

Chapter 3

Does Globalization Really Extinguish

Minor Cultures?

3.1 Introduction

In 2008, five leading exporters accounted for 59.2% of all exports of cultural goods in the world market, with the top 10 exporters accounting for 69.3% of exports.¹ It is plausible that globalization could harm cultural diversity, as found by many existing studies, since a few dominant cultural goods take over most of the market and threaten the survival of minor cultural goods. Rosen (1981) argued that small numbers of artists (known as “superstars”) dominate a large part of the market when there are low transfer costs and economies of scale in production. This does appear to be the case since the onset of globalization, especially in the case of cultural goods. The impact of globalization on regional culture/cultural production is now actively debated. Bala and Van Long (2005) analyzed the effect of cultural goods trade on the evolution of individual preferences. They argued that the preferences of a large country

¹UNCTAD 2010: 132. The top five exporters: China, United States, Germany, Hong Kong, Italy.

could dominate those of a much smaller country. Then, Olivier *et al.* (2008) argued that open trade may cause the extinction of cultures that exist under autarky. Following these arguments, countries including Canada, France, and South Korea have taken actions to protect their indigenous cultural goods.

On the other hand, some smaller countries have risen in the global market since the advent of globalization. For example, in South Korea, the total export of cultural products tripled between 1999 and 2008, reaching \$1.8 billion. At the same time, the economy grew at an annual average of 5.32%.² Between 2003 and 2008, global exports of cultural products grew at an annual rate of 11.53%.³ Cowen (2002) observed that creativity in minor cultures ushered in a temporary boom during the early period of inter-cultural contact. For example:

The culture of the Hawaiian Island, rather than withering immediately with foreign contact, blossomed in the late nineteenth and early twentieth centuries. The combination of Pacific, American, Japanese, and Chinese influences created a fertile creative environment. In music Hawaiian performers have been seminal influences behind the development of country and western, pedal steel guitar, blues, jazz, and finger picking guitar styles, as well as modern 'lounge' music. In each case the Hawaiians innovated within established Western forms, or relied partly on Western inspiration. (p. 56)

The positive effects of globalization on regional cultural production have

²Growth rate data is provided by the United Nations. Available at http://data.un.org/Data.aspx?q=GDP+growth&d=WDI&f=Indicator_Code%3aNY.GDP.MKTP.KD.ZG.

³UNCTAD 2010: 302

also been documented. Niebuhr (2010) analyzed the economic effects of cultural diversity in terms of immigration. She argued that cultural diversity in a labor force improves the performance of regional R&D sectors. Rauch and Trindade (2009) incorporated innovation, which benefits from the increased accessibility to various cultural traits, into their model. They suggested that subsidies for the fixed costs of production are more effective in protecting the indigenous “cultural style,” than they are at protecting “cultural production.” Cowen (2002) demonstrated that globalization temporarily benefits regional cultural production by expanding demand to a global scale and enriching creativity materials.

Given these contrasting statements, our aim is to answer the following questions. First, what is the effect of globalization on minor cultures/cultural goods? Second, if protection is needed, are there policies under which minor cultural goods can ultimately survive independently?

Before answering these questions, we should note a significant feature of cultural goods: the distinction between producers and consumers is much more ambiguous than it is in the case of other commercial products. This feature is based on several observations. Firstly, culture is created by individuals and shared socially within a society.⁴ This implies that individuals, incorporating their own creativity, can create cultural-related work. In addition, individuals’ inspiration is possibly influenced by the ubiquitous cultural traits in the society. Secondly, advances in media and communication technologies significantly accelerate the circulation of ideas, signals, creative works, and cultural con-

⁴As Avruch noted in 1998, “culture is a derivative of individual experience, something learned or created by individuals themselves or passed on to them socially by contemporaries or ancestors [...] ‘Culture’ is always psychologically and socially distributed in a group” (pp. 5–6).

tent. Products such as smartphones, personal computers, and digital cameras enable most consumers to share content anytime and anywhere, and the Internet enables people to exchange and discuss ideas. Thus, it is quite possible for a person's ideas to inspire the production of other creations.

Based on these observations, we formulate a quality revolution mechanism in which domestic consumers' consumption experience today affects the competitiveness of indigenous cultural goods tomorrow in any producing region. More specifically, the pre-workforce demographic consumers of today will bring their consumption experiences to their roles in the productive workforce of tomorrow. Consumers' inspiration tends to benefit from their past exposure to various cultural goods. While these consumers become producers or contributors in the next period, they draw on the stock of ideas from past experience to produce cultural goods, which eventually determines the quality of cultural goods. This mechanism is crucial to our overall analysis in this chapter.

Interestingly, our results show that, in the long run, globalization can benefit small countries in certain ways. By applying specific moderate protection policies, small countries are able to bridge the clear quality gap of cultural goods that existed before globalization.

More specifically, before globalization, most cultures were able to survive because the search for and transportation cost of foreign cultural items was so high that competition between domestic and foreign cultural goods was quite weak. Eventually, consumers in a large country could access various cultural goods owing to a larger market (higher expenditure). From this more abundant consumption experience, the quality of cultural goods in larger countries tends to be superior to that of smaller countries. In other words, there was a

quality gap between large and small countries before globalization.

With the advent of globalization, domestic creators in smaller countries were threatened with the prospect of vanishing owing to the drastic increase of imported foreign cultural goods. Suppose small countries, to protect domestic creators, implement policies to limit the number of importers. Then, we find that if such protection is specifically moderate in scope, customers in small countries can access a greater variety of cultural goods (compared to the case before globalization) under the premise of maintaining domestic cultural goods. This increase in available variety leads to an increase in the level of quality of indigenous cultural goods in the next period. That is, a domestic creator becomes more competitive. In this context, governments are able to subsequently admit more imports. If this process continues, the quality level of indigenous cultural goods in small countries will eventually catch up with that of large countries. As a result, the indigenous production of cultural goods in small countries can be maintained in the long term, without protection from the government. However, if the level of protection is too heavy, this will stunt the evolution of local quality. The increasing quality gap between the goods of small countries and those of large countries leads producers in small countries to be less competitive. Ultimately, local producers come to depend on such protection from the government, and cannot survive on their own.

In short, globalization might be an apparent reason for the extinction of minor cultures/cultural goods, but it is not the primary reason. Even before globalization, minor cultures/cultural goods were extinguished. Prior to globalization, cultural goods in some countries were less competitive owing to their smaller local markets and populations. As a result of the closed environment,

these less competitive cultural goods could survive. However, globalization, characterized by a dramatic decrease in transportation costs, rapidly intensified competition in domestic markets. Some cultural goods disappeared in the more competitive environment. Our point is that globalization provided an unexpected opportunity to enhance the competitiveness of minor cultural goods because it introduced a richer menu of choices to domestic consumers. This, in turn, stimulated domestic cultural creativity. With effective protection policies (i.e., moderate protection policies), minor cultural goods can eventually improve in terms of quality and, ultimately, survive independently.

Our work is most closely related to that of Rauch and Trindade (2009), but presents two main differences from their work. Firstly, we assume that young consumers today become the creators of tomorrow. Secondly, we assume that the quality of cultural goods produced during the next period benefits only from the accessible variety of cultural goods in the previous period, since some surviving cultural goods may not be consumed in a given market. In contrast, Rauch and Trindade assume that the quality of cultural goods produced during the next period benefits from the total variety of surviving cultural goods from the previous period.

This study provides the following suggestions on cultural policy issues, especially for minor countries/cultures. 1) For trade policies in smaller countries, protection is needed to ensure sufficient time for domestic cultural goods to become competitive enough to survive on their own. A moderate protection policy is preferable because it allows for a greater variety of cultural traits, which help to inspire individual creativity. This further improves the quality of domestic cultural goods. Too stringent a protection policy may widen

the competitiveness gap between domestic and foreign cultural goods. 2) In their domestic cultural policies, the government should pay more attention to customer welfare than to producer welfare under the premise of the survival of local creators. It is the customer who determines the competitiveness of tomorrow's cultural goods. 3) Major countries should assist smaller countries to maintain their culture. If a minor culture disappears, this will ultimately also be detrimental to customer welfare in larger countries.

The remainder of this chapter is structured as follows. Section 3.2 describes the basic setting of our model. Sections 3.3 and 3.4 examine the situation before and just after globalization. In Section 3.5, we analyze the effects of protection policies. Lastly, Section 3.6 concludes the chapter.

3.2 Model

Time is discrete and the world consists of N countries. The expenditure on cultural goods in country i is constant over time, and is denoted by E_i , depending on the scale and the development level of the economy. We assume, for simplicity, that E_i takes one of two values, E_L and E_S , and that $E_L > E_S$. The ratio of the “large countries” with E_L to the “small countries” with E_S has no influence on the following analysis.

There is only one type of “indigenous cultural good” in each country, originally derived from its indigenous cultural traits. Thus, the possible maximum number of differentiated cultural goods is also N . We assume that, in each country, the indigenous cultural good can be produced and sold by a single domestic “creator” with a common increasing returns to scale production technology, characterized by a constant marginal cost of unity and a fixed cost

$c_d > 0$. At the same time, there are sufficient potential providers of foreign cultural goods in each country, but they do not directly import products from the original countries. Each provider simply imitates a foreign indigenous cultural good created in another country, produces it herself and sells it only in the domestic market. The production technology of the provider of a foreign cultural good (refers to as “imitator” hereafter) also exhibits increasing returns to scale with a constant marginal cost of unity and a fixed cost $c_m > 0$, as long as the foreign cultural good is authentically produced in its original country. The fixed cost c_m is considered to be a setup cost for each imitator in searching for information about a specific foreign cultural good and the cultural traits of the original country.

Therefore if a cultural good is no longer produced in its original country, foreign imitators cannot obtain information about that good and produce it in each domestic market. For example, imitating and producing a Japanese cultural good in Korea is feasible only when that good is still produced by the Japanese creator in Japan. We assume that these costs do not include any payment to original creators. The equilibrium of each domestic market is characterized by free entry for imitators. In addition, the lower the search cost is, the more imitators are motivated to enter.

The utility function of a representative consumer in country i at time t is given as

$$u_{it} = q_{it}^{1-\alpha} y_{it}^\alpha + \sum_{j \in S_{it}} x_{it}(j)^\alpha, \quad (3.1)$$

where y_{it} and $x_{it}(j)$ denote the consumption in country i of the domestic cultural good, and foreign cultural good of country j , respectively, at time t . Then, S_{it} is the set of all types of foreign cultural goods potentially available

in country i at time t , and q_{it} denotes the quality level of the domestic cultural good created by the domestic creator in country i at time t .

Culture is propagated and maintained through the actions of individual consumers. By manufacturing new cultural items or by simple word-of-mouth transmission of ideas, an individual who consumes cultural goods must be seen as the ultimate inspiration for subsequent developments in cultural goods. From this, it must be inferred that the cultural goods made available to any region directly contribute to the tangible quality of the next generation of cultural goods produced in that region. This assumption connects the quality of cultural goods tomorrow to customers' consumption experience today. The richer the variety and the higher the quality a customer is exposed to, the higher the quality of cultural goods he or she will create over time.

This implies that $q_{i,t+1}$ is positively related to q_{it} and the variety of the foreign cultural goods consumed in country i in the previous period t , n_{it} . In addition, we assume the following motion of the quality of the domestic cultural good:

$$q_{i,t+1} = q_{it}^\beta (\lambda n_{it})^{1-\beta}, \quad \lambda > 0, \quad 0 < \beta < 1. \quad (3.2)$$

The concave curves in Figure 3-1 demonstrate the quality evolution process when n_{it} is fixed with regard to t , in which the above curve represents the case with richer variety (i.e., with larger n_{it}).

In each country at time t , the representative consumer maximizes (4.1) according to the following budget constraint:

$$p_{it}y_{it} + \sum_{j \in S_{it}} p_{it}(j)x_{it}(j) \leq E_i, \quad (3.3)$$

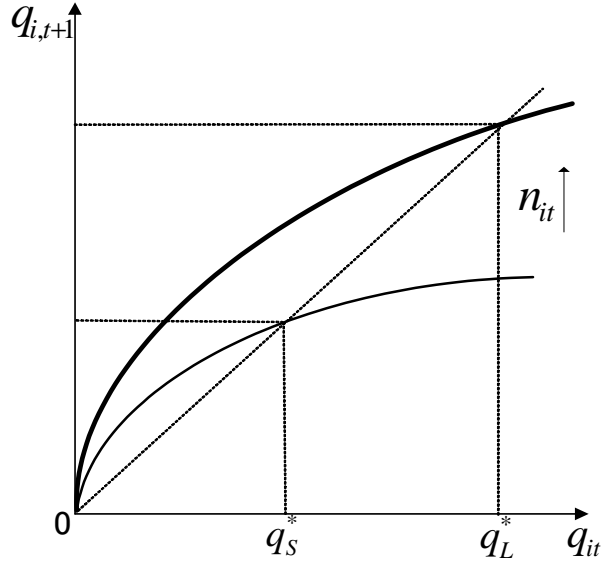


Figure 3.1: Quality evolution process

where p_{it} and $p_{it}(j)$ denote the price of the domestic cultural good and the cultural good from country j in country i , respectively. From the first-order conditions, the following demand functions are derived:

$$y_{it}^D = \frac{q_{it} p_{it}^{-\frac{1}{1-\alpha}}}{q_{it} p_{it}^{-\frac{\alpha}{1-\alpha}} + \sum p_{it}(j)^{-\frac{\alpha}{1-\alpha}}} E_i \quad (3.4)$$

for the domestic creator, and

$$x_{it}(j)^D = \frac{p_{it}(j)^{-\frac{1}{1-\alpha}}}{q_{it} p_{it}^{-\frac{\alpha}{1-\alpha}} + \sum p_{it}(j)^{-\frac{\alpha}{1-\alpha}}} E_i \quad (3.5)$$

for the foreign cultural good j . Since these demand functions have the same price elasticity, $1/(1-\alpha)$, and all firms have the same marginal cost of unity, all firms charge the same markup price, $p = 1/\alpha$. Then, the gross profit of

each firm in country i is:

$$\hat{\pi}_{it} = \frac{q_{it}}{q_{it} + n_{it}}(1 - \alpha)E_i \quad (3.6)$$

for the domestic creator, and

$$\hat{\pi}_{it}(j) = \frac{1}{q_{it} + n_{it}}(1 - \alpha)E_i \quad (3.7)$$

for the imitator of the foreign cultural good j . The domestic creator operates only when he at least breaks even (i.e., $\hat{\pi}_{it} \geq c_d$).

3.3 Prior to Globalization

Next, we describe the steady-state equilibrium with the free entry of imitators in each country. Free entry implies that imitators continue to enter as long as the gross profit covers the fixed costs. Here, we can distinguish three situations, as shown in Figure 3-2.

1. $\hat{n}_{it} = 0$ and $\frac{(1-\alpha)E_i}{q_{it}} \leq c_m$.
2. $0 < \hat{n}_{it} < N$ and $\frac{(1-\alpha)E_i}{q_{it} + \hat{n}_{it}} = c_m$.
3. $\hat{n}_{it} = N$ and $\frac{(1-\alpha)E_i}{q_{it} + N} \geq c_m$.

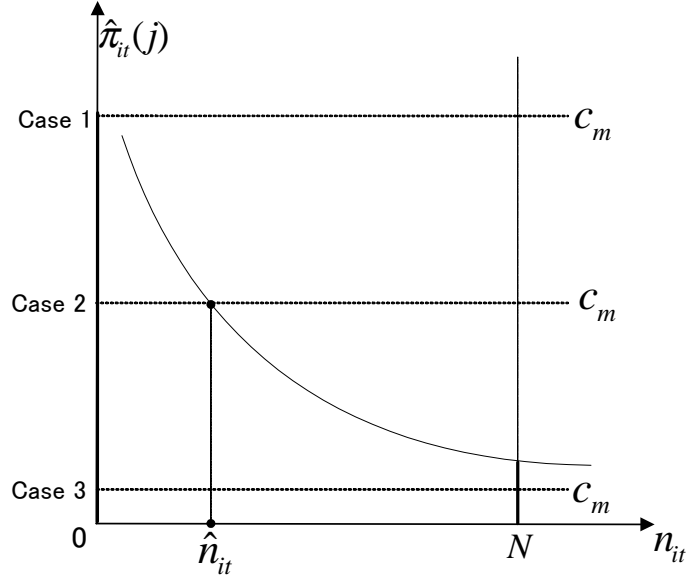


Figure 3.2: Free-entry variety of foreign cultural goods

Then, the free-entry number of imitators \hat{n}_i is characterized as a function of a given level of q_i :

$$\hat{n}_i = \begin{cases} 0 & \text{when } q_i \geq \frac{(1-\alpha)E_i}{c_m} \\ \min\left(\frac{(1-\alpha)E_i}{c_m} - q_i, N\right) & \text{when } q_i < \frac{(1-\alpha)E_i}{c_m} \end{cases} \quad (3.8)$$

The number of available foreign cultural goods is negatively correlated to the quality of the indigenous cultural good, q_i , represented by the two downward sloping lines in Figure 3.3, and the imitator's fixed cost, c_m . The steady-state relationship between n_i and q_i is obtained by substituting $q_{i,t+1} = q_{it}$ into (3.2). This yields

$$q_i = \lambda n_i, \quad (3.9)$$

as shown by the upward sloping line in Figure 3.3. From (3.8) and (3.9), the steady-state variety of foreign cultural goods and the quality of the indigenous

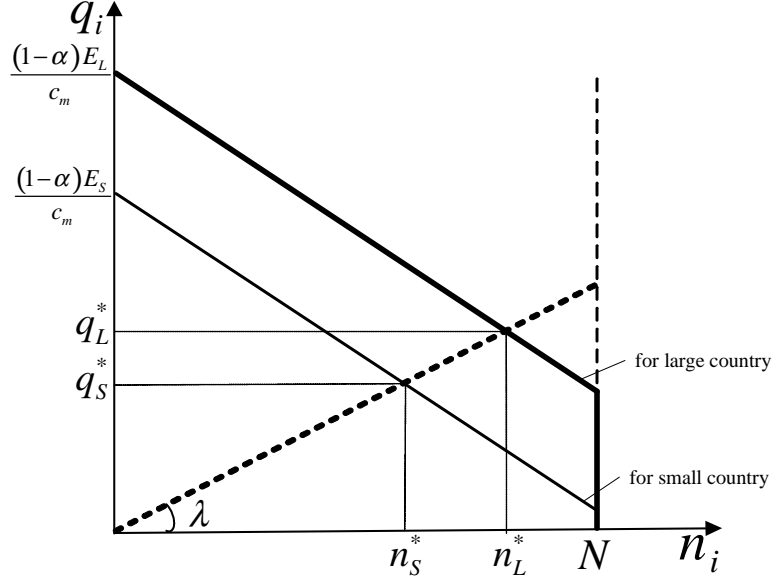


Figure 3-3: Steady-state quality and variety prior to globalization

cultural good in country i under free entry are given as:

$$n_i^* = \min \left(\frac{(1-\alpha)E_i}{(1+\lambda)c_m}, N \right), \quad (3.10)$$

$$q_i^* = \lambda \min \left(\frac{(1-\alpha)E_i}{(1+\lambda)c_m}, N \right). \quad (3.11)$$

However, the above calculation was conducted on the assumption that the domestic creator in each country can actually survive, that is, $\hat{\pi}_{it} \geq c_d$ and $y_{it} > 0$. Thus, we need to confirm that this condition holds. Substituting (3.10) and (3.11) into (3.6) yields the steady-state gross profit of the domestic creator i , $\hat{\pi}_i^*$ as:

$$\hat{\pi}_i^* = \frac{\lambda}{\lambda+1} (1-\alpha)E_i. \quad (3.12)$$

The following assumption ensures that, before globalization, domestic creators were able to survive, even in small countries.

Assumption 1

$$\frac{\lambda}{\lambda + 1}(1 - \alpha)E_S > c_d.$$

Proposition 3.1 *In Assumption 1, the steady-state equilibrium (n_i^*, q_i^*) in each country i is characterized by (3.10) and (3.11).*

In the following analysis, we restrict our attention to the case in which, prior to globalization, there was a strict quality gap between domestic creators in large countries and small countries.

Assumption 2

$$\frac{(1 - \alpha)E_L}{(1 + \lambda)c_m} < N.$$

3.4 Just after Globalization

Although there is no current consensus on a definition of “globalization,” the influence of globalization on all aspects of individuals’ social lives is quite evident. Specifically, the search cost of information has decreased significantly with the rapid development of modern information and communications technology. In this study, globalization is interpreted as a drastic decrease in fixed costs for imitators. For simplicity, we assume that, after globalization, $c_m \rightarrow 0$. Benefiting from the dramatic drop in the search cost on foreign cultural goods, many imitators enter the market. Thus, the available variety of cultural goods in a specific domestic market tends to increase to N quite suddenly. However,

the competitiveness of local creators remains unchanged because the quality of cultural goods stays the same as it was before globalization. Just after globalization, the domestic creator in the country of each type earns a gross profit of:

$$\hat{\pi}_{it} = \frac{\lambda(1-\alpha)^2 E_S^2}{\lambda(1-\alpha)E_S + N(1+\lambda)c_m}, \quad (3.13)$$

for the small country, and

$$\hat{\pi}_{it} = \frac{\lambda(1-\alpha)^2 E_L^2}{\lambda(1-\alpha)E_L + N(1+\lambda)c_m}, \quad (3.14)$$

for the large country.

The domestic creator's operational profit declines dramatically owing to the increase in n_{it} , although customer welfare increases at the same time. It is possible for a local creator to fail in the market. Creators in small countries face a far more severe threat than those in large countries do because of the lower cultural expenditure, E_S , and the lower quality of cultural goods, q_S^* . Here we introduce the following assumption.

Assumption 3

$$\frac{\lambda(1-\alpha)^2 E_S^2}{\lambda(1-\alpha)E_S + N(1+\lambda)c_m} < c_d < \frac{\lambda(1-\alpha)^2 E_L^2}{\lambda(1-\alpha)E_L + N(1+\lambda)c_m}$$

Assumption 3 ensures that only the domestic creators in the large countries can survive the competitive pressure generated by globalization. Even though the domestic creators' profit has decreased dramatically in large countries, it still exceeds their fixed costs. At the same time, the first inequality implies

that, without such protection, indigenous cultural goods of small countries will be squeezed out of the market. For the same fixed cost of creation, creators in large countries are able to afford the decreased profits, but those in small countries cannot do so. However, consumers in the immediate period after globalization have access to more variety. This consumption experience facilitates the expansion of their creativity, and helps them to produce better quality cultural goods when they take up the role of creators in future.

In conclusion, just after globalization, customers enjoy the benefits of a richer choice at the expense of a loss to creators. Consistent with the loss in operational profit, domestic creators who provide indigenous cultural goods in large countries may survive, while those in small countries might not. Considering the significance of domestic cultures, small countries have to protect their own indigenous cultural goods and maintain their own cultural traits.

3.5 Protection Policies

The disappearance of indigenous cultural traits is a problem to countries both large and small. Large countries will no longer be able to benefit from importing cultural goods from smaller countries if those cultural goods disappear. From our earlier analysis, we can infer that increasing expenditure (subsidies) on cultural goods or decreasing the number of imitators can help original creators to survive. However, subsidies use social resources that could be applied in other ways. Thus, we assume that government in small countries directly limit the number of imitators by, for example, selectively denying the entry of some cultural goods.

3.5.1 Moderate Protection

What is the most suitable protection policy for small countries? To what extent should small countries restrict foreign cultural goods? Here, we first consider a minimum protection policy, which implies restricting entries to maintain an environment in which domestic creators just can survive. That is, the government chooses \tilde{n}_{it} so that

$$\hat{\pi}_{it} = \frac{q_{it}}{q_{it} + \tilde{n}_{it}}(1 - \alpha)E_i = c_d \quad (3.15)$$

when the domestic creator cannot survive under free entry.

Definition 3.1 *Moderate Protection Policy (MPP): Choose*

$$\tilde{n}_i(q_{it}) = \min \left(\frac{(1 - \alpha)E_i - c_d}{c_d} q_{it}, \quad N \right) \quad (3.16)$$

in each period.

Proposition 3.2 *If a small country applies an MPP after globalization, it may have no protection in future.*

Proof. We let $t = 0$ denote the period just after globalization. We have assumed that in the steady state of pre-globalization,

$$\hat{\pi}_i^* = \frac{q_i^*}{q_i^* + n_i^*}(1 - \alpha)E_S = \frac{\lambda}{\lambda + 1}(1 - \alpha)E_S > c_d. \quad (3.17)$$

Then, since $q_{i0} = q_i^*$, we obtain

$$\tilde{n}_i(q_{i0}) > n_i^*.$$

For the next period, $t = 1$, noting that

$$q_i^* = (q_i^*)^\beta (\lambda n_i^*)^{1-\beta}, \quad (3.18)$$

we can confirm that

$$q_{i1} = q_{i0}^\beta (\lambda \tilde{n}_i(q_{i0}))^{1-\beta} > q_{i0} (= q_i^*),$$

and

$$\tilde{n}_i(q_{i1}) > \tilde{n}_i(q_{i0}).$$

Thus, we conclude that $\tilde{n}_i(q_{it})$ reaches N at some point and q_{it} finally converges to the steady-state level under the full variety of foreign cultural goods consumption, λN . This process is shown in Figure 3-4. ■

With an MPP, a country can consume a larger variety of foreign cultural goods, even just after globalization, $\tilde{n}_i(q_{i0}) > n_i^*$. Reflecting the increase of n , the next period's quality of domestic cultural goods is higher than that in the previous period. Owing to their increase in quality, domestic cultural goods become more competitive. In this context, the government is able to ease the restriction, that is, \tilde{n} increases. If the government continues this process, \tilde{n} gradually increases to N . Additionally, q_{it} increases to λN . This has two implications. Firstly, the apparent quality gap between small and large

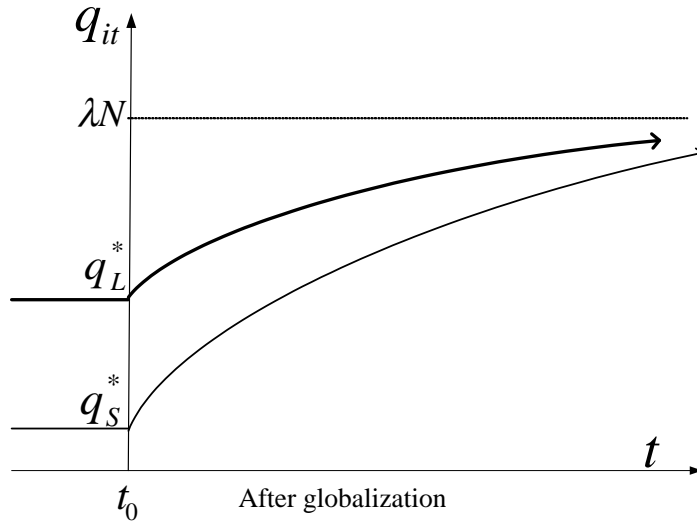


Figure 3.4: Quality convergence under an MPP

countries can be bridged after globalization. In both small and large countries, the quality of cultural goods finally reaches λN . The competitiveness of minor cultural goods finally catches up with that in major countries. Secondly, the government could ultimately remove its restrictive policies. In other words, indigenous cultural goods, even in small countries, would survive, and even thrive on their own.

After the advent of globalization, social welfare in small countries gradually increases under MPPs. The creator's profits stay 0 until the domestic products become competitive enough that the government abandons the MPP. Then, it increases gradually until it finally reaches the same level it was at before globalization. This is shown by the red dotted line in Figure 3.5. Consumers' welfare keeps increasing until the cessation of the MPP, as long as their consumption choice continues to become richer.

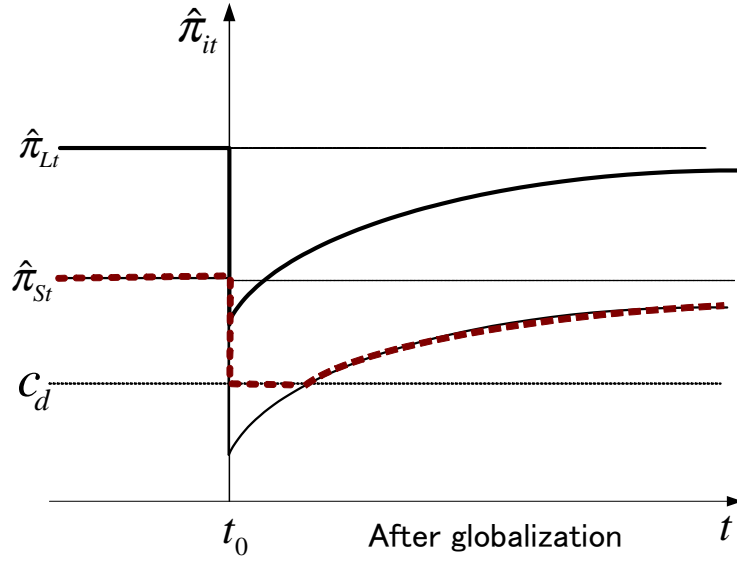


Figure 3-5: Profits of domestic creators under an MPP

3.5.2 Heavy Protection

Small countries can maintain their own cultural goods by adopting an MPP. Does this mean protection is always good? To answer this question, we consider the case of a heavy protection policy. Suppose that at the outset of globalization, the government adopts a heavy protection policy to restrict entries to n_S^* , in other words, to the same level as before globalization. Domestic creators can maintain their pre-globalization profit level in this situation. However, the quality of domestic cultural goods will also never evolve. Considering the continuous quality evolution in large countries, the quality gap between minor and major cultural goods will continue to grow. Thus, domestic creators will have to rely on the protection of the government to survive. As a result, the government must continue its protection forever. This effect of stagnating quality is itself an intriguing subject. However, we do not pursue this further here.

A heavy protection policy in a small country ultimately causes a decline in the relative competitiveness of that country's cultural goods and undermines the domestic creator's ability to survive on her own. This result is predominantly because heavy protection policies prevent domestic consumers from accessing a greater variety of cultural goods, thus, stunting their creativity. Therefore, when a government designs its cultural policies, it should place consumer interests above those of providers.

Proposition 3.3 *Heavy protection stunts the evolution of the quality of domestic cultural goods, increasing the quality gap between small and large countries.*

In the above analysis, we assume a government can restrict the number of foreign cultural goods. However, with the advancement of information and communications technology, this has become more and more difficult to do. Thus, prior to the next revolution in information and communication technology, the government of each country needs to foster a sustainable, but not stifling environment for its indigenous cultural goods. As we have discussed, this can be achieved by instituting a moderate cultural protection policy.

3.6 Conclusion

Globalization intensifies competition between domestic and foreign cultural goods in regions, which may result in the disappearance of minor cultures. However, globalization also introduces domestic consumers to richer consumption choices, and the advanced communication technologies inherent in it accelerate the exchange of ideas and content. These, in turn, stimulate creativity

in domestic production, increasing the competitiveness of domestic cultural goods.

Our results suggest that specific moderate protection policies are most suitable for small countries to protect their own cultural goods. With sustainable moderate protection, domestic cultural goods of small countries will eventually be able to survive on their own. In contrast, heavy protection policies initially protect the indigenous cultural industry, but ultimately halt its development in quality and, thus, damage domestic creators' ability to survive on their own. This research suggests political implications to policymakers in both major and minor countries.

Chapter 4

Beliefs, Reputation, and Media

Capture

4.1 Introduction

As a well-documented force in political economics, the mass media provide the public with most of the information they use for decision-making. The influence of the mass media on various political outcomes such as government accountability (Besley and Prat 2006), the turnover of politicians (Prat and Strömberg 2013), and public policies (Strömberg 2004) has been widely recognized. Strömberg (2004) demonstrated that public policies are generally biased towards programs that benefit large social groups because the reporting of newspapers is biased towards those programs, which in turn because of the increasing returns to scale of newspapers. Eisensee and Strömberg (2007) examined around 5000 natural disasters between 1968 and 2002 and found that the disaster relief decisions made by the U.S. government are significantly affected by the extent and effects of the related news coverage.

However, as well documented as its forceful role in political economics, the

mass media’s troubling tendency towards bias is also widely acknowledged. Existing research provides two origins for media bias, namely demand-driven and supply-driven. The main assumption in demand-driven studies is that media coverage is affected by the prior beliefs and preferences of the audience.¹ In addition, reputation is another concern when media outlets are deciding on their coverage strategies. Reputation has a much greater influence on demand for the mass media compared with other commercial products because mass media products, say newspaper reports, are experience goods. Before actually reading a newspaper, the audience cannot accurately judge the quality of its reports. The most reliable benchmark is the quality of previous reports and/or reviews from other audiences (i.e., the reputation of the newspaper as a whole). Not surprisingly, an outlet with a good reputation generally attracts a larger audience, as choosing a reputable media resource is usually less risky and time-saving. In particular, when audiences lack sufficient knowledge or prior information to determine the authenticity of some reports, such as the performance of long-term government projects and the true state of the world, it is more reasonable for them to choose an outlet with a high-quality reputation. Similarly, a reputable media outlet is also preferable for advertisers because of its larger readership and higher reliability. Indeed, the prime assumption in Gentzkow and Shapiro (2006) is that “a media firm wants to build a reputation as a provider of accurate information” (p. 282).

¹Bernhardt *et al.* (2008) analyzed the electoral effects of media bias under the premise that media firms maximize profits “may involve catering to a partisan audience by suppressing information that the partisan audience does not like hearing” (p. 1092). Gentzkow and Shapiro (2010) argued that the media significantly respond to consumer preferences (like-minded news) through the analysis of U.S. daily newspapers.

In the supply-driven stream of research, studies of media capture dominate, although some authors emphasize the bias of journalists and editors (see Baron 2006; Druckman and Parkin 2005). Media capture (also known as media independence) refers to the situation in which a media outlet is bribed or threatened to edit its reports, namely change the information that the public obtain, in order to manipulate the public's opinions and/or decisions. The media are considered to be more independent in a society with a lower extent of media capture. Besley and Prat (2006) stated that pluralism and independent ownership decrease the extent of media capture and in turn boost government accountability.

In this chapter, we find that a media outlet faces a loss of reputation if it is captured and that the reputation loss from staying silent is severer in a society where people believe in more independent media. In a society where the public trust the media coverage, holding back hard information is more likely to suggest that this outlet has not found the information and consequently the public suspect the quality of a silent media outlet to a larger degree, leading to a greater loss of reputation and greater related monetary loss. Only when the bribe from interest groups compensates for this loss can the outlet be captured. Hence, the media are more independent and reliable in this type of society. On the contrary, in a society where people do not trust the media, people have higher tolerance towards a silent media, which is more likely to be considered as captured instead of lacking quality. As a consequence, the reputation loss from media capture reduces, the media outlet is less motivated to maintain its independence, and thus the actual extent of media capture increases.

Based on these findings, we argue that the extent of media capture, independent of the economic determinants, can only be determined by the public's trust in the media in a society. More specifically, the extent of media capture, or media independence, can be self-realized with the baseline of people's prior beliefs towards it. In this sense, both trustworthy and untrustworthy media should be understood as social phenomena with a self-fulfilling prophecy, not just the result of institutional and regulatory arrangements.

A simple theoretical model is constructed to represent the above supposition. In our model, the media, specifically a newspaper, is possibly captured by a specific stratum of society, which forces it to hold back some information in order to manipulate the public's opinion towards the interests of the specific group. The reputation of the newspaper is modeled as the rational posterior belief of the public towards the quality of this newspaper, and the posterior is affected by their prior expectation about the probability of media capture. Our result shows the existence of multiple equilibria. A difference in the prior beliefs towards media capture results in a difference in the actual extent of media capture in equilibrium, which is further shown to increase as the inequality of the society rises.

Our work sheds light on both the political economics of media and cultural economics. As for the first scope, we endogenized the cost of media capture in contrast to the approaches taken by most existing studies. For the second, our framework may offer insights into cultural-based explanations of political/economic outcomes, since cultural economists generally agree that culture itself, as a set of beliefs or by influencing individuals' beliefs (and preferences), affects economic outcomes.

Although studies of media capture have been expanding, almost all extant works have not endogenized the cost of media capture (e.g., Gehlbach and Sonin 2014; Corneo 2006; Petrova 2008). Besley and Prat (2006) did endogenize the extent of media capture. In their model, the revenue of a media outlet derives from two sources, audience-related revenue and bribes from politicians. A media outlet can be captured only when the discounted bribes can compensate its audience-related revenue, which is defined as an exogenous variable. In our model, a captured outlet suffers a loss of reputation as well as a related monetary loss, which is defined as the cost of capturing that outlet. Defining the cost of media capture as the pecuniary loss related to reputation loss has two advantages. Firstly, as demonstrated earlier in this section, the reputation of the outlet largely determines its audience-related revenue, from both demand and advertising. Secondly, reputation effects not only determine current revenue, but also affect revenue in the long run.

Since the late 1990s, economists have attempted to use culture to explain economic outcomes. The main difficulty of these attempts lies in how to formulate culture under a suitable framework so that its influence is analytical and sufficiently distinguished from that of other variables. Economists' efforts to overcome this difficulty have begun by defining culture. According to Throsby (2001), culture is defined as "a set of attitudes, beliefs, morals, customs, values and practices which are common to or shared by any group" (p. 4), while Guiso *et al.* (2006) defined culture as "those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation" (p. 23). Further, Muth (1961) and Sargent and Wallace (1976) endogenized beliefs as objective probability distributions.

As reflected in the definitions of culture above, economists generally agree that culture influences economic outcomes in terms of beliefs and values (preferences). Studies in this field aim to present the impact of culture (such as religious and ethnic backgrounds) on individuals' prior beliefs and preferences and then verify this impact on economic outcomes.² Guiso *et al.*'s (2006) review of this stream of research showed that most studies are empirical and conducted by processing survey data (about trust), conducting experiments (playing game), or analyzing historical cases (how beliefs affect institutions). While theoretical frameworks are generally inadequate, Greif (1994) did introduce a cultural explanation to examine why societies fail to adopt the organization of more economically successful ones. He demonstrated that cultural beliefs, modeled as the rational expectations of a player with respect to the actions of other players, play an important role as a selection mechanism among multiple equilibria in determining societal organizations and institutions.

Our study shows that individuals' prior beliefs determine the actual extent of media capture in equilibrium by affecting media outlets' decisions of whether to accept bribes from politicians. In this sense, we present a theoretical framework to analyze how prior beliefs, independent of other economic variables, determine agents' behavior and thus political/economic outcomes. Considering that culture is defined as a set of beliefs, we introduce a cultural-based explanation to examine the extent of media independence in a society.

²For example, Guiso *et al.* (2003) tested the impact of an individual's religious background on his or her beliefs about trust. The effects of trust on economic outcomes have also been tested by researchers such as Zak and Knack (2001) and Guiso *et al.* (2009).

4.2 Model

Our basic setting follows Petrova (2008), who analyzed the relationship between income inequality and media capture. The society consists of a minority of the rich and a majority of the poor. The public jointly, but actually the poor as a majority, decide a tax rate for the provision of public goods. The tax rate is affected by the productivity of public goods, but the poor are ex-ante unaware of the true state of productivity. A media outlet serves to provide information about this true state; however, the rich may capture and silence the media if the media outlet holds hard evidence of high productivity. To fix the idea, our attention is restricted to the case that the rich always desire a lower tax rate than the poor do, even under high productivity.

4.2.1 Basic Setting

The economy is populated by a continuum of individual voters. Of these, the proportion α called “the rich” have a high pre-tax income, W_H , while the proportion $1 - \alpha$ called “the poor” have a low pre-tax income, W_L . Further, $\alpha < \frac{1}{2}$, $W_H > W_L$. The utility function of a voter is

$$U = W(1 - t) + \sqrt{G}, \quad (4.1)$$

where t is the tax rate, for simplicity, determined by the median voter. All tax revenues are spent on producing public goods, whose amount is denoted by G . The production of public goods is assumed to be linear, $G = btY$, in which Y is the aggregate income in the economy, $Y = \alpha W_H + (1 - \alpha)W_L$; b is the productivity of public goods.

Productivity b has a binary state. $b \in \{b_L, b_H\}$, where b_L and b_H represent a general level and a high level of productivity, respectively and $b_L < b_H$. The poor are ex-ante unaware of the true state. Their prior belief of the true state being b_H or b_L is equal, $\frac{1}{2}$. We assume that the poor receive no hard feedback about the true state b in the short-term, at least until the completion of the game.

At the beginning of the game, the media firm receives an imperfect but informative signal of productivity. The distribution of this signal depends on the outlet's quality. If the true state is b_H , the outlet, at a probability of λ , is "high quality" and it receives hard evidence of b_H at a probability of π_H . On the contrary, at a probability of $1 - \lambda$, the outlet is deemed to be "low quality" and obtains hard evidence of b_H only at a probability π_L . As $\pi_L < \pi_H$, a high-quality outlet is more capable of receiving a verifiable signal of the true state than a low-quality outlet. If the true state is b_L , the outlet observes nothing. The electorate are ex-ante unaware of the type of media outlet.

We assume that the rich can observe the signal received by the media outlet, while the poor cannot. If the media observe b_H , the rich decide whether to offer a bribe to silence the media. In such a case, the rich share it evenly, and the outlet decides whether to accept it. If the outlet accepts the bribe, it holds back the hard evidence of b_H and stays silent. We call the media "captured" in this case. The poor place a prior belief, ρ^E , on the outlet being captured when the state of the world is b_H , $\rho^E \in [0, 1)$. If the outlet refuses the bribe, it reports truthfully. No false information is reported in our setting. The verification of false information damages the reputation of the outlet in the long run.

The poor, who cannot observe the true state of b or the signal received by the media, update their prior beliefs of the true state according to media reports and then decide on a tax rate for the whole economy.

4.2.2 Timing of the Game

The timing of the game is as follows:

1. Nature determines the state of the world, b_L or b_H , and the type of outlet (i.e., high quality or low quality).
2. The media outlet receives a signal of b , ϕ , or b_H . The rich observe the signal received by the media outlet.
3. If the media outlet has observed hard information of b_H , the rich decide whether to offer a bribe of B to suppress the information; if the media outlet observes ϕ , the rich take no action.
4. If the bribe is offered, the outlet decides whether to accept it. If it accepts, it stays silent (reports $\widehat{\phi}$); if it rejects, it reports the hard evidence of b_H ($\widehat{b_H}$). If no bribe is forthcoming, the outlet reports what it observed.
5. The poor observe the reports and update their beliefs about the true state of the world and the type of the media.
6. The poor (median) voter determines the tax rate of the whole economy. All agents receive their payoffs.

4.3 Multiple Equilibria

This game can be solved by means of backward induction. We first determine the tax rate in stage 6, given the reports by the media outlet. If the outlet reports \widehat{b}_H , the poor know that the true state must be b_H . Maximizing (4.1), we obtain the tax rate conditional on reporting \widehat{b}_H ,

$$t^*(\widehat{b}_H) = \frac{b_H Y}{4W_L^2}. \quad (4.2)$$

By substituting (4.2) into (4.1), the payoff of the rich is $W_H(1 - t^*(\widehat{b}_H)) + \sqrt{b_H t^*(\widehat{b}_H) Y}$.

If the outlet reports $\widehat{\phi}$, the poor expect two scenarios: (i) the true state is b_H but the outlet is captured by the rich or (ii) the true state is b_L . The poor's posterior probability of the true state being b_H after observing the report of $\widehat{\phi}$, $\Pr(b_H | \widehat{\phi})$, can be obtained by using Bayesian rules. We refer to $\Pr(b_H | \widehat{\phi})$ as p ,

$$p = \frac{A(\rho^E - 1) + 1}{A(\rho^E - 1) + 2}, \quad (4.3)$$

where $A = \lambda\pi_H + (1 - \lambda)\pi_L$. Accordingly, $\Pr(b_L | \widehat{\phi}) = 1 - p$.

From (4.3), we easily know

$$\frac{\partial p}{\partial \rho^E} > 0. \quad (4.4)$$

p increases in ρ^E . The poor's posterior probability of the true state being b_H conditional on $\widehat{\phi}$ depends on, more specifically, increases in their prior beliefs about media capture. $p \in [\frac{1-A}{2-A}, \frac{1}{2}]$. When $\rho^E \rightarrow 1$, $p \rightarrow \frac{1}{2}$. This fact

implies that once the poor believe that the media are almost fully captured, their posterior beliefs stay the same as their prior beliefs. In other words, the media can no longer update the poor's prior beliefs and the audience loses trust in the media reports.

We use p to indicate the audience's trust in the media. A larger p indicates that the audience trusts the media less. Since p increases in ρ^E , we know that the audience's trust in the media decreases if it believes the media have a high possibility of being captured.

By maximizing $p[W_L(1-t) + \sqrt{b_H t Y}] + (1-p)[W_L(1-t) + \sqrt{b_L t Y}]$, we obtain the tax rate conditional on $\hat{\phi}$,

$$t^*(\hat{\phi}) = \frac{Y[(1-p)\sqrt{b_L} + p\sqrt{b_H}]^2}{4W_L^2}. \quad (4.5)$$

By substituting (4.3) and (4.5) into (4.1), we obtain the rich's payoff after a report of $\hat{\phi}$.

Before analyzing whether the outlet chooses to accept the bribe (if one is forthcoming) in stage 4, we first check the effects of its reports on the majority's posterior beliefs towards it. The poor's posterior probability of the outlet being high quality given a report of \hat{s} is

$$\Pr(\text{high} \mid \hat{b}_H) = \frac{\lambda}{\lambda + (1-\lambda)\pi_L/\pi_H}, \quad (4.6)$$

$$\Pr(\text{high} \mid \hat{\phi}) = \frac{2\lambda - (1-\rho^E)\lambda\pi_H}{2 - (1-\rho^E)A}. \quad (4.7)$$

(4.6) shows that $\Pr(\text{high} \mid \hat{b}_H)$ is independent of prior beliefs about media

capture, ρ^E . If the outlet reports \widehat{b}_H , the poor believe that this outlet is high quality at a certain probability, disregarding the extent of media capture in the society. $\Pr(\text{high} \mid \widehat{b}_H)$ is a constant that is greater than λ . By contrast, $\Pr(\text{high} \mid \widehat{\phi})$ increases in ρ^E , $\frac{\partial \Pr(\text{high} \mid \widehat{\phi})}{\partial \rho^E} > 0$, and $\Pr(\text{high} \mid \widehat{\phi}) \in [\frac{2-\pi_H}{2-A} \lambda, \lambda)$.

We easily know $\Pr(\text{high} \mid \widehat{b}_H) > \Pr(\text{high} \mid \widehat{\phi})$. This means that the poor believe those outlets that report \widehat{b}_H are more likely to be high quality than those that stay silent. If we consider the posterior probability of the outlet being high quality as a gain of reputation, the gain of reputation from reporting \widehat{b}_H is always higher than that from staying silent. As a result, if the outlet observes \widehat{b}_H but stays silent, it suffers a loss of reputation.

A media outlet's loss of reputation directly induces a monetary loss. The poor have insufficient information to identify the true state until they receive hard feedback. A plausible criterion for them to determine the credibility of a media outlet's reports is its reputation. It is reasonable for the audience to trust an outlet with a better reputation. A more reputable outlet can attract larger demand, thereby influencing the audience and attracting advertising to a greater extent. We denote the monetary loss of a media outlet related to a reputation loss as $\Delta C(\text{Pr})$, while $C(\text{Pr})$ is the monetary gain from a reputation gain. $C'(\text{Pr}) > 0$. As a result, we can define the capture cost of a media outlet as follows:

Definition 4.1 *The monetary cost of capturing a media outlet is $\Delta C(\text{Pr})$, while $\Delta C(\text{Pr}) = C(\Pr(\text{high} \mid \widehat{b}_H)) - C(\Pr(\text{high} \mid \widehat{\phi}))$.*

Lemma 4.1 *The cost of capturing a media outlet decreases in the prior probability of media capture, $\frac{\partial \Delta C(\text{Pr})}{\partial \rho^E} < 0$.*

Proof. $\frac{\partial \Delta C(\text{Pr})}{\partial \rho^E} = -\frac{\partial C(\text{Pr}(\widehat{\phi}))}{\partial \text{Pr}(\widehat{\phi})} \frac{\partial \text{Pr}(\widehat{\phi})}{\partial \rho^E}$, while $C'(\text{Pr}) > 0$ and $\frac{\partial \text{Pr}(\widehat{\phi})}{\partial \rho^E} > 0$. Therefore $\frac{\partial \Delta C(\text{Pr})}{\partial \rho^E} < 0$. ■

Lemma 4.1 indicates that in a society with less independent media outlets, the media face less reputation loss and in turn less related monetary loss from staying silent. Intuitively, when the audience places less trust in media reports, it is more likely to expect a silent outlet to be a high-quality but captured one as opposed to a low-quality one. This fact implies that the reputation gain of an outlet that stays silent is higher compared with that in a society with freer media. Since the reputation gain from reporting truthfully is constant, the reputation loss of the media getting captured declines. As a result, the media have less motivation to maintain their independence in a society with severer distrust in it.

In short, the outlet faces a trade-off between a monetary cost due to a reputation loss and a monetary benefit in terms of the bribe. If the bribe from the rich meets or exceeds the outlet's cost from its reputation loss, the outlet accepts the bribe and stays silent; otherwise, it rejects it and reports truthfully.

The maximum bribe is constrained by the rich's gain from capturing the outlet. The payoff of each rich individual is

$$\begin{cases} U(W_H, t^*(\widehat{\phi}), b_H) - \frac{B}{\alpha}, & \text{if the rich offer a bribe;} \\ U(W_H, t^*(\widehat{b}_H), b_H), & \text{if the rich offer no bribe,} \end{cases} \quad (4.8)$$

where B is the bribe amount, $B \geq \underline{B}$, and $\underline{B} = \Delta C(\text{Pr})$. Bribe B should at least meet the outlet's monetary cost from being captured. For the rich, the optimal option is either to offer the minimum level of bribe under the

premise of capturing the media successfully or to offer nothing. In any case of $B < \underline{B}$, rich voters fail to capture the media and prefer to offer no bribe. We let $B = \underline{B}$. Therefore, the net gain of each rich voter from capturing the media becomes $U(W_H, t^*(\hat{\phi}), b_H) - U(W_H, t^*(\hat{b}_H), b_H) - \frac{B}{\alpha}$. Denote the rich's benefits from capturing the media, $U(W_H, t^*(\hat{\phi}), b_H) - U(W_H, t^*(\hat{b}_H), b_H)$, as ΔU . Only when the net gain is positive, namely $\alpha\Delta U \geq \Delta C(\text{Pr})$, does a rich voter prefer to offer a bribe.

To simplify the motivation problem of the rich to bribe, we introduce the assumption, $\frac{b_L}{b_H} > \frac{W_L^2}{W_H^2}$.³ This assumption is to ensure that the rich desire a lower tax rate than the poor do, even when the productivity of public goods is high. Here, we obtain the relationship between ΔU and ρ^E .

Lemma 4.2 *If $\frac{b_L}{b_H} > \frac{W_L^2}{W_H^2}$, the rich's benefit of capturing the media decreases*

in ρ^E , $\frac{\partial \Delta U}{\partial \rho^E} < 0$.

Proof. ΔU is directly affected by p , and p is affected by ρ^E . $\frac{\partial \Delta U}{\partial \rho^E} = \frac{\partial \Delta U}{\partial P} \frac{\partial P}{\partial \rho^E}$.

$\frac{\partial \Delta U}{\partial P} = -ap + b$, where $a = 2W_H Y \frac{(\sqrt{b_H} - \sqrt{b_L})^2}{(2W_L)^2} > 0$, $b = 2W_H Y \frac{(\sqrt{b_H} - \sqrt{b_L})(W_L \sqrt{b_H} - W_H \sqrt{b_L})}{(2W_L)^2 W_H}$.

$\because \frac{b_L}{b_H} > \frac{W_L^2}{W_H^2}$, $\therefore b < 0$, and consequently $\frac{\partial \Delta U}{\partial P} < 0$. On the contrary, $\frac{\partial P}{\partial \rho^E} =$

$A[A(\rho^E - 1) + 2]^{-2} > 0$. Therefore, $\frac{\partial \Delta U}{\partial \rho^E} < 0$. ■

The intuition behind Lemma 4.2 is clear: a higher prior belief about media capture reflects less reliability in the media reports. This mistrust reduces the impact of such reports on voters' ex-post judgments of the true state and in turn lessens the reduction in the final tax rate. Therefore, the benefit of the

³Petrova (2008) applied same assumption (p. 189).

rich capturing the media decreases. This fact means that the rich's motivation to capture the media is undermined when the media outlet is less independent.

Lemmas 4.1 and 4.2 show that both the rich's motivation to capture the media and the motivation of the media to remain independent decrease in ρ^E . Regarding the possible situations, we simply analyze three cases when $\alpha\Delta U(\rho^E = 0) < C(\rho^E = 0)$, which are presented in Figures 4.1 to 4.3, where the red line demonstrates the rich's benefit ($\alpha\Delta U$) and the black one means the monetary cost ($\Delta C(\text{Pr})$) of the outlet related to media capture. Without loss of generality, we do not consider the case in which the two lines overlap.

Case 4.1 $\rho^{*E} = 0$

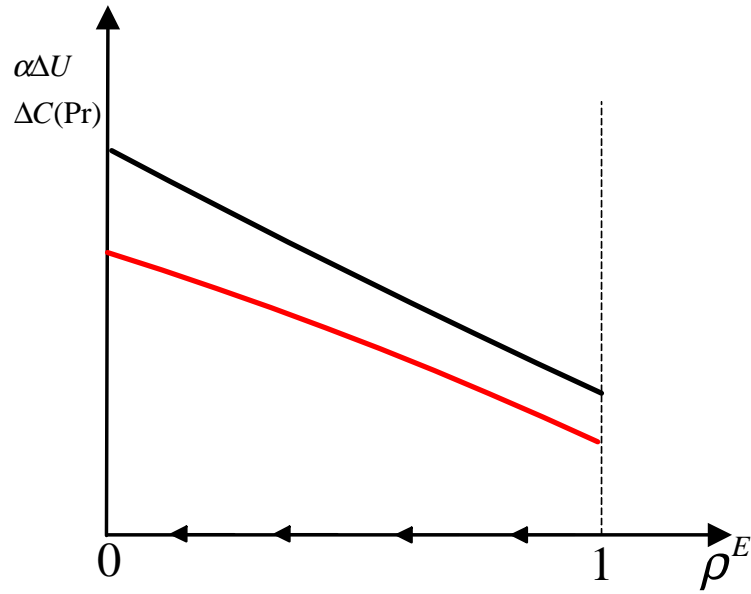


Figure 4.1: Unique equilibrium of media capture ($\rho^{*E} = 0$)

In this case, the rich's benefit of capturing the media is lower than the cost regardless of the prior belief about media independence. Hence, the rich can never collude with the media, $\rho^{*E} = 0$.

Case 4.2 $\rho^{*E} = 0$ and $\rho^{*E} \rightarrow 1$

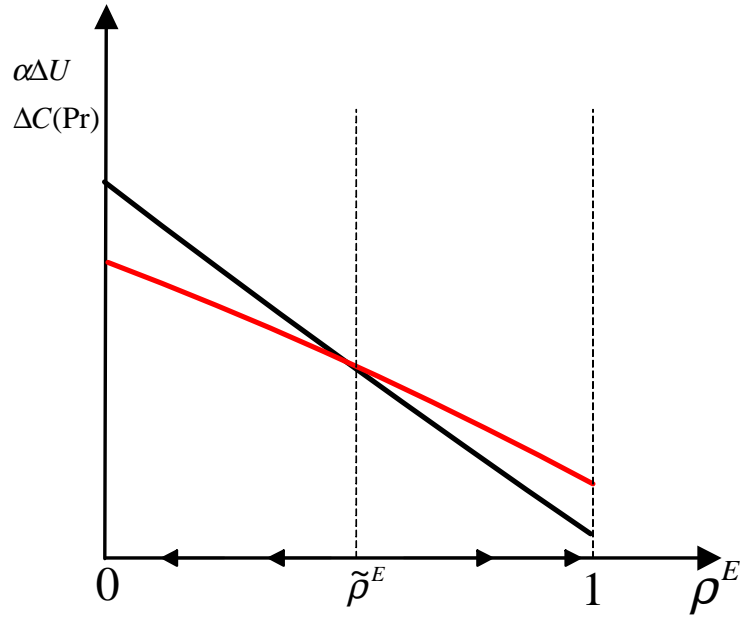


Figure 4.2: Multiple equilibria ($\rho^{*E} = 0$ and $\rho^{*E} \rightarrow 1$)

ρ^{*E} converges to either 0 or 1. If the majority's prior probability of ρ^E is above a certain level, say $\tilde{\rho}^E$, the media will be almost completely captured by the rich in equilibrium ($\rho^{*E} \rightarrow 1$). On the contrary, if the media are initially independent ($\rho^E < \tilde{\rho}^E$), they are too costly to be captured and, consequently, the probability of media capture will decrease to a very low level ($\rho^{*E} = 0$). The level of media capture varies in equilibrium.

Case 4.3 $\rho^{*E} = 0$ and $\rho^{*E} = \tilde{\rho}$

Similarly, we obtain another multiple equilibria, i.e., $\rho^{*E} = 0$ and $\tilde{\rho}$. $0 < \tilde{\rho} < 1$. By summarizing the results in Cases 4.1–4.3, we obtain the following proposition.

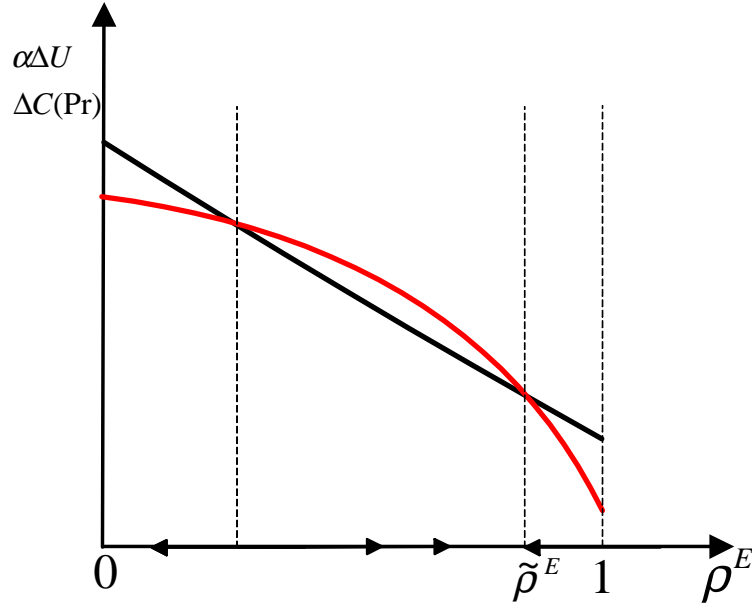


Figure 4.3: Multiple equilibria ($\rho^{*E} = 0$ and $\rho^{*E} = \tilde{\rho}^E$)

Proposition 4.1 *The equilibrium extent of media capture may be one of two kinds:*

- 1) *Unique equilibrium, as shown in Case 4.1.*
- 2) *Multiple equilibria, as shown in Cases 4.2 and 4.3.*

Proposition 4.1 shows the existence of multiple equilibria, which implies that the degree of media independence may be formed under a self-enhancing mechanism. If the public trust the media reports, the media face a dramatic loss of reputation if captured and kept silent and thus have a strong motivation to report truthfully, wherein the cost of media capture becomes high. Thus, the probability of media capture can be kept at a low level and the public can trust the media. By contrast, if the public do not trust the media,

the reputation loss of the media from being captured lowers. The media are then less motivated to maintain their independence. The probability of media capture thus remains at a high level and the public in turn do not trust the media. In this sense, trust in the media should be understood as a social phenomenon with a self-fulfilling prophecy, not only the result of institutional and regulatory arrangements.

Proposition 4.1 also shows that people's prior trust, independent of other economic variables, affects the final outcome of media capture. If considering the impact of culture on people's prior beliefs, or culture itself as a set of prior beliefs, it somehow indirectly verifies the casualty from culture to the actual level of media capture. In this sense, our work provides a cultural-based explanation of the actual level of media capture in a society.

Comparatively, we obtain the following proposition.

Proposition 4.2 *When $0 < \rho^{E*} < 1$, if inequality $\frac{W_H}{W_L}$ increases, the level of media capture in equilibrium increases, $\frac{\partial \rho^{E*}}{\partial (W_H/W_L)} > 0$.*

Proof. Let $f(\gamma, \rho^E) = \alpha \Delta U - \Delta C(\text{Pr})$, where $\gamma = \frac{W_H}{W_L}$. We obtain ρ^{E*} when $f(\rho^{E*}) = 0$ and $\frac{\partial f(\rho^{E*})}{\partial \rho^{E*}} < 0$. By treating ρ^{E*} as an implicit function of γ , we get $\frac{d\rho^{E*}}{d\gamma} = -\frac{f_\gamma}{f_{\rho^{E*}}} = -\frac{\alpha \Delta U_\gamma}{f_{\rho^{E*}}}$ (γ only affects ΔU , not $\Delta C(\text{Pr})$). $\frac{\partial \Delta U}{\partial \gamma} = \frac{\gamma}{4}(1-p)(1+p)(\sqrt{\delta}-1)(\sqrt{\delta} + \frac{1-p}{1+p})$, where $\delta = b_H/b_L > 1$. $\therefore \frac{\partial \Delta U}{\partial \gamma} > 0$, and then $\frac{\partial \rho^{E*}}{\partial \gamma} > 0$, namely $\frac{\partial \rho^{E*}}{\partial (W_H/W_L)} > 0$. ■

Proposition 4.2 shows that the level of media capture is higher if inequality is severer. As Petrova (2008) explained, severer inequality means the rich benefit more from a reduction in the tax rate by suppressing the media, so

that the maximum bribe that they can afford increases. The rich are then more capable of capturing the media. The probability of the media reporting truthfully decreases in the inequality.

4.4 Conclusion

Our results show that the public's prior beliefs about media capture determine the level of media independence in a society, by affecting both the reputation loss of the media and the benefits of the rich from media capture. We present a simple model in which the rich can influence public choices by suppressing the media and thereby affecting the information that the public can obtain. Higher prior beliefs about media capture indicate less trust in the media. In a society with less trust in the media, the reputation loss (and related pecuniary loss) of a media outlet being captured is less because the public are likely to expect a silent media to be high quality but captured. The outlet is therefore less motivated to keep its independence. Meanwhile, the media place less influence on updating the masses' prior beliefs about the true state of the world because of distrust in the media. This finding implies that the benefit of the rich capturing the media also decreases, and therefore the rich only offer a lower bribe. The extent of media capture is finally decided in the interaction between the rich and the media outlet, whose benefits and costs separately depend on the public's prior beliefs towards media capture.

Moreover, multiple equilibria of media capture may exist in a society. Differences in the public's prior beliefs may result in different extents of media capture. This finding implies that prior beliefs, independent of all other eco-

conomic variables, may determine the actual extent of media independence. In addition, media independence should be understood as a self-fulfilling phenomenon, not only the result of institutional regulations or economic interactions.

Chapter 5

Cognitive Dissonance and Media

Independence

5.1 Introduction

Political economists generally agree that media independence has positive political outcomes. It benefits the functioning of a democracy both in selecting qualified candidates and in disciplining incumbents. Further, independent media outlets reveal more accurate and complete information about politicians and the state of the world to the electorate. An informed electorate are then more able to identify and vote for responsible and capable candidates. As for politicians in office, any additional information helps alleviate the problem of moral hazard caused by asymmetric information. Under such media scrutiny, incumbents are more likely to apply good public policies in order to seek re-election or maintain their personal reputations.

As discussed thus far, media independence is also known as media capture. A captured media outlet would tailor its reporting, such as holding back unfavorable reports and advocating positive information, in order to manipu-

late the public's opinion. The media are considered to be less independent if they are easier to capture. Previous studies provide some determinants of the extent of media capture, such as the pluralism of ownership (Corneo 2006), inequality of society (Petrova 2008), and the total commercial value from the audience market (Besley and Prat 2006). In Chapter 4, we argued that the possibility of a media outlet being captured is negatively correlated with its reputation loss from doing so.

Although most research advocates the positive influence of media independence, some exceptions have emerged. Marskin and Tirole (2004) pointed out that while more information does regulate incumbents, it also enhances their motivation to “pander.” Incumbents may select policies that are in line with the public's prior expectations, disregarding the private information they themselves have. Prat (2005) argued that when voters observe incumbents' actions, rather than the consequences of their policy choices, incumbents are motivated to pander.

On the contrary, research in the field of group polarization implies that more information, even if such information is objective and correct, may be detrimental politically. Deliberation within a group results in group polarization. According to Sunstein (2002), “members of a deliberating group predictably move toward a more extreme point in the direction indicated by the members' predeliberation tendencies” (p. 176). By applying the Bayesian inference framework, Glaeser and Sunstein (2009) showed that after social learning, the variance in individuals' posterior beliefs rises compared with beforehand. Although group polarization is not necessarily be harmful because the whole group may polarize to more beneficial tendencies or more accu-

rate beliefs, polarization within the group makes compromise (i.e., consensus) among groups more difficult to reach.

The above backgrounds lead to our research questions: Does media independence always produce positive political outcomes? Might media independence be ineffective or even counterproductive after incorporating perspectives from social psychology? To answer these questions, we incorporate the idea of cognitive dissonance into our framework. Theory of cognitive dissonance has been crucial in the field of social psychology. After the theory's original development by Festinger in the 1950s, the economic consequences of cognitive dissonance were initially explored by Akerlof and Dickens in 1982 before attracting wider attention from economists.

Cognitive dissonance presents the mental discomfort or stress of individuals holding conflicting beliefs, ideas, attitudes, or behaviors as well as confronting new ideas that are inconsistent with their preexisting beliefs. According to Festinger (1957), dissonance, "that is, the existence of nonfitting relations among cognitions, is a motivating factor in its own right. By the term cognition [...] I mean any knowledge, opinion, or belief about the environment, about oneself, or about one's behavior" (p. 3). Cognitive dissonance theory suggests that individuals strive for cognitive consonance. The occurrence of dissonance leads to a dissonance reduction process, in which individuals actively adjust their behavior or beliefs to achieve consistency.

Cognitive dissonance is incorporated into our framework because it provides a perspective to process new information, especially that which can result in inconsistencies from prior beliefs. We construct a political agency model to analyze the policy choices of politicians and the role of media independence.

In this model, those politicians in power may distort their policy choices to pander to the public. In other words, they may choose the policy that the public expect a qualified incumbent to choose even if it may bring about negative outcomes in the long run. The effectiveness (consequence) of the policy choice is reported by a media outlet to the public. The electorate update their beliefs towards both the incumbent and their own excellence based on their signals about the state of the world, the incumbent's policy choice, and media reports.

Contrasting results are obtained. When the electorate are perfectly Bayesian, the incumbent's incentive to pander decreases in a society with more independent media. Hence, media independence leads to positive political outcomes. However, if the electorate strongly believe in their own excellence levels if their posterior probability of being excellent falls below the lowest acceptable level, they experience cognitive dissonance and are assumed to twist their prior beliefs of some state variables to reduce such dissonance. In this scenario, greater media independence brings about adverse outcomes.

This study implies that enhancing media independence cannot be understood as an easy agenda for developing countries. Although media freedom is advocated widely, in a society where the public strongly stick to their preexisting beliefs, enhancing media independence may reinforce incumbents' motivation to pander and consequently intensify populism. Our work also sheds light on dealing with cognitive dissonance in the field of media economics. Most related studies assume that audiences prefer like-minded news and thus the mass media tailor their reports to cater to the audience's tastes. This assumption is considered to be one of the main origins of media bias and an

explanation for the existence of partisan media outlets. In our framework, by acquiring new information from media that creates cognitive dissonance, audiences alter some of their prior beliefs to reduce such dissonance, whereas this alteration of prior beliefs may affect the policy choices of politicians.

5.2 Model

5.2.1 Basic Setting

We consider a two-period model. In the first period, an incumbent politician i makes a single political decision. At the end of the first period, an election is called between incumbent i and challenger c . The policy choices of the incumbent, denoted as p , are simply whether to implement a project or not. $p \in \{0, 1\}$, $p = 1$ represents that the incumbent implements the project and $p = 0$ means that he or she does not. The project here is assumed to be a long-term one, such as the implementation of national health insurance, construction of a high-speed rail network, or change in regional diplomatic policy.

The payoff of the project to voters and politicians depends on the true state of the world s , $s \in \{0, 1\}$. When $s = 0$, the true state is bad or immature for the project. Implementing the project results in a negative net social value. When $s = 1$, the project produces a positive social value. Voters receive a positive payoff if $p = s$ and a negative one otherwise. Voters cannot observe the true state, and have an unbiased prior belief towards it, $\Pr(s = 1) = \Pr(s = 0) = \frac{1}{2}$.

There are three types of politicians: normal, good, and corrupt. The

incumbent can observe the true state of society. However, only normal and good incumbents are possible to choose the policy that is consistent with the state of the world ($p = s$), while corrupt incumbents always prefer to implement the project, $p = 1$. The electorate cannot observe the type of incumbent, only knowing that the prior probabilities of each type are $1 - \omega$, $\eta\omega$, and $(1 - \eta)\omega$, respectively. Incumbents' policy choices are motivated by their own utility functions. The utility of the normal type is defined as

$$u_n = \begin{cases} q_n + \lambda & \text{if the incumbent is re-elected;} \\ q_n & \text{if the challenger is elected,} \end{cases} \quad (5.1)$$

where $\lambda > 0$ is the discounted office spoils from the second period and q_n is the “quality” of the policy for normal incumbents and the electorate. For simplicity, we let $q_n = 1$ if $p = s$ and 0 otherwise.

The utility of corrupt incumbents is

$$u_c = \begin{cases} bq_c + \lambda & \text{if the incumbent is re-elected;} \\ bq_c & \text{if the challenger is elected,} \end{cases} \quad (5.2)$$

where q_c is the quality of the policy of corrupt types. We assume that $q_c = 1$, if $p = 1$ and 0 otherwise. $b \rightarrow +\infty$. The utility for good incumbents is

$$u_g = q_n. \quad (5.3)$$

This is a special case when $\lambda = 0$. The utility of good incumbents only consists of the payoff of choosing a policy consistent with the true state. That is to say, the good incumbent always chooses $p = s$.

In the first period, each voter receives a private signal σ about the true state. The accuracy of the received signal depends upon the voter's type. A small proportion of the electorate θ are excellent voters, $\theta < \frac{1}{2}$, which means that they can observe a completely correct signal, $\sigma = s$. The remainder of the electorate $1 - \theta$ are normal and can learn the correct signal only at the probability β , $\frac{1}{2} < \beta < 1$. For simplicity, we assume that signals observed by normal voters (denoted as σ_n) are perfectly correlated. This fact implies that all normal voters observe the correct signal at a probability of β and the incorrect one at a probability of $1 - \beta$. θ is common knowledge to all voters. However, voters do not know their own type, only that they have a probability of θ of being "excellent."

A media outlet provides information about the project. Voters cannot observe the project outcome in the short-term, at least before the election, but they may learn about the performance of the project from the media. If the project is implemented and creates positive value, namely when $s = p = 1$, the media outlet can observe hard evidence of the effectiveness of the project and convey this information to voters. However, the corrupt incumbent, who always chooses $p = 1$, may capture the media and force it to convey the same type of information even when $s = 0$. We assume that voters cannot tell the difference between true and false information. Voters' prior probability of media capture is denoted κ , $0 < \kappa < 1$.

At the end of the first period, an election is called. The re-election probability of the incumbent, π , is assumed to increase in voters' posterior beliefs

of the incumbent not being corrupt, μ :

$$\frac{d\pi(\mu)}{d\mu} > 0.$$

5.2.2 Timing of the Game

The timing of the game is summarized as follows:

- N1. Nature determines the type of incumbent.
- N2. Nature determines the true state of society, s .
 1. Voters receive a signal σ on the true state of society.
 2. The incumbent observes the true state of society and the signal received by (normal) voters. Normal voters cannot observe the signal received by excellent voters.
 3. The incumbent decides whether to implement the project, p .
 4. When $s = p = 1$, the media observe and report the effectiveness of the project. Meanwhile, the corrupt incumbent captures the media and forces it to convey the same type of information at a probability of κ even when $s = 0$.
 5. The election is called. The incumbent receives the office spoils from the second term if re-elected.

5.2.3 Multiple Equilibria

Our focus is only on the normal incumbent's policy strategy since the strategies of good and corrupt incumbents have already been discussed. The normal incumbent understands that voters will update their prior beliefs towards his or her type according to his or her policy choice and that these updated beliefs mainly determine whether he or she is re-elected. Because normal voters comprise the majority, the normal incumbent, when considering the effects of his or her policy choice on his or her re-election probability π , only evaluates its effects on normal voters' beliefs.

The normal incumbent's policy decision is derived from maximizing his or her utility, which is composed of the benefits from being re-elected and the payoff from applying good policies. Choosing $p = 0$ could maximize the probability of being re-elected. However, when $s = 1$, the incumbent somehow faces a trade-off between obtaining a payoff from choosing the correct policy and obtaining the office spoils from re-election. Choosing $p = 0$ brings about a high probability of re-election but very low benefits from the policy choice, whereas when choosing $p = 1$, the gain from the policy is high but the probability of re-election decreases.

In the first period, the normal incumbent faces the following four cases.

Case 5.1 $s = 0, \sigma_n = 0$

The project has negative effects and normal voters obtain the correct signal. Not implementing the project is thus optimal for the incumbent, resulting in high benefits from applying a consistent policy and a high probability of re-election. Therefore, in this case $p = 0$.

Case 5.2 $s = 0, \sigma_n = 1$

The true state is not good for implementing the project, but normal voters receive the wrong signal. Choosing not to implement the project can directly exclude the possibility of being “corrupt” and bring about a positive social value. The normal incumbent also chooses $p = 0$ in this case, although this choice somehow sacrifices his or her popularity among voters. The private signal of normal voters shows that the project leads to a positive outcome and they believe that their signal is highly likely to be correct (at least a probability of β , $\beta > \frac{1}{2}$). Therefore, normal voters’ expectation is to implement the project. In other words, the more popular decision of the incumbent is $p = 1$.

Case 5.3 $s = 1, \sigma_n = 1$

The project brings about a positive outcome based on the state of the world and voters obtain the same information. The incumbent faces the following trade-off. Choosing $p = 1$ produces a positive social value and appeals to the public, which means the probability of being re-elected is relatively high. On the contrary, choosing $p = 0$ can directly exclude the possibility of not being re-elected. Applying $p = 1$ is generally more natural in this case.

Case 5.4 $s = 1, \sigma_n = 0$

Normal voters receive a signal that the project leads to a negative social value; however, the incumbent privately knows that the project delivers benefits. The incumbent thus faces a severer trade-off than in the previous case and has relatively strong motivation to pander. Pandering to the electorate

($p = 0$) raises the possibility of being re-elected markedly ($\pi = 1$) but the payoff from the policy choice is very low ($q_n = 0$). Not pandering ($p = 1$) brings about a large payoff from the policy choice ($q_n = 1$); however, the incumbent is more likely to be inferred as corrupt and the possibility of re-election is therefore relatively low (lower than that in the previous case).

Therefore, it is reasonable to infer that if the office spoils from the second term (λ) are sufficiently large, the normal incumbent prefers to pander (i.e., he or she chooses $p = 0$); by contrast, if λ is small enough, the normal incumbent prefers not to pander (i.e., he or she chooses $p = 1$). This leads to the following proposition.

Proposition 5.1 *There exist $\underline{\lambda}$ and $\bar{\lambda}$ ($\underline{\lambda} < \bar{\lambda}$) such that when $\lambda < \underline{\lambda}$, only no pandering is the equilibrium; when $\lambda > \bar{\lambda}$, only pandering is the equilibrium; and when $\underline{\lambda} \leq \lambda \leq \bar{\lambda}$, both equilibria hold.*

Proof. Since corrupt incumbents always choose $p = 1$, when voters observe $p = 0$, they certainly find the incumbent to be a normal or good type. Thus, the incumbent will be re-elected at the probability of $\pi(1)$. If a normal incumbent chooses to pander when $\sigma_n = 0$ but $s = 1$, the expected payoff is $\pi(1)\lambda$. Suppose that voters expect normal incumbents to pander. Then, if voters observe $p = 1$ after getting signal $\sigma_n = 0$, they believe the incumbent not to be normal and to be good with probability

$$\mu_1 \equiv \frac{\eta}{\kappa(1 - \eta) \frac{1 - (1 - \beta)(1 - \theta)}{(1 - \beta)(1 - \theta)} + 1},$$

and the incumbent will be re-elected with probability $\pi(\mu_1)$. If a normal incumbent chooses not to pander while voters expect the pandering, the expected payoff of this deviator is given by $1 + \pi(\mu_1)\lambda$. When

$$\pi(1)\lambda \geq 1 + \pi(\mu_1)\lambda,$$

or $\lambda \geq \underline{\lambda} \equiv 1/(\pi(1) - \pi(\mu_1))$, normal incumbents give up deviating and the expectation by the voters become rational. In contrast, suppose that voters expect normal incumbents not to pander. Then, the ex post probability for the incumbent to be normal or good after the voters observed $\sigma_n = 0$ and $p = 1$ is given by

$$\tilde{\mu}_1 \equiv \frac{1 + (1 - \eta)\varepsilon}{\kappa(1 - \eta)\varepsilon \frac{1 - (1 - \beta)(1 - \theta)}{(1 - \beta)(1 - \theta)} + 1}.$$

The normal incumbent who did not pander has a re-election probability $\pi(\tilde{\mu}_1)$. Therefore, when

$$\pi(1)\lambda \leq 1 + \pi(\tilde{\mu}_1)\lambda,$$

or $\lambda \leq \bar{\lambda} \equiv 1/(\pi(1) - \pi(\tilde{\mu}_1))$, normal incumbents choose not to pander and the expectation by the voters become rational. Since $\tilde{\mu}_1 > \mu_1$ and $d\pi(\mu)/d\mu > 0$, we have $\bar{\lambda} > \underline{\lambda}$. ■

Proposition 5.1 shows that multiple equilibria coexist when the office spoils from the second term (λ) are within a certain interval. The intuition that underlies the existence of multiple equilibria is as follows:

1. In a society in which the electorate believe that incumbents do not pander ($p = 1$) and tend to believe that those who have chosen $p = 1$ are less likely to be corrupt, incumbents who choose $p = 1$ have a relatively

high probability of being re-elected and thus less motivation to pander. The positive feedback is justified. We denote this equilibrium the “no pandering equilibrium.”

2. In a society in which the electorate believe that incumbents do pander, they believe that those who have chosen $p = 1$ are more likely to be corrupt. Incumbents who choose $p = 1$ have less possibility of being re-elected and in turn more motivation to pander to the electorate. The negative feedback is justified. This equilibrium is denoted the “pandering equilibrium.”

In a democracy, the motivation to pander to the electorate increases in the benefits from being re-elected. When the office spoils from re-election are sufficiently high, populism may take place. Therefore, incumbents tailor their policy choices to pander to the interests of general voters. However, the electorate may not know the true state or the quality of the policy correctly. Hence, the chosen “popular” policy may conflict with the interests of elites (who are more likely to observe the true state) as well as bring about negative outcomes for the whole society. If the motivation of being re-elected is sufficiently low, incumbents are more likely to consider the payoff of their policy choices and subsequently more likely to choose good policies.

5.3 Comparative Statics

5.3.1 Without Cognitive Dissonance

In this section, we conduct comparative statics under the pandering equilibrium (when $s = 1$ and $\sigma_n = 0$). If voters observe $p = 0$, their posterior beliefs

about the incumbent not being corrupt μ_0 are

$$\mu_0 = 1.$$

The observation of the policy choice helps voters update their beliefs towards not only the type of incumbent, but also their own type. Voters update their self-image according to their own signal of the true state, the incumbent's policy choice, and media reports. Normal voters' posterior beliefs of themselves as being excellent ρ_0 are

$$\rho_0 = \frac{\theta [1 - (1 - \eta)\omega]}{1 - \{1 - \eta [1 - (1 - \beta)(1 - \theta)]\} \omega}. \quad (5.4)$$

(5.4) shows that media independence does not influence the way in which voters' update their self-image in this scenario. Both μ_0 and ρ_0 are independent of κ . If $p = 0$ is observed, it is obvious that the incumbent is not corrupt. Moreover, before the project begins, the media cannot easily find hard evidence about its effectiveness.

Consider a deviation from the pandering equilibrium. Under the pandering equilibrium, if voters observed $p = 1$ and the media reported the effectiveness of the project, voters expect the following two scenarios: 1) They receive the correct information, $s = 0$, the incumbent is corrupt, and the captured media report false information and 2) They receive incorrect information, $s = 1$, and the incumbent can be either good or corrupt. The posterior belief that the incumbent is not corrupt, μ_{1+} becomes

$$\mu_{1+} = \frac{\eta}{\kappa(1-\eta)^{\frac{1-(1-\beta)(1-\theta)}{(1-\beta)(1-\theta)}} + 1} \quad (5.5)$$

Lemma 5.1

$$\frac{\partial \mu_{1+}}{\partial \kappa} < 0, \quad \frac{\partial \mu_{1+}}{\partial \eta} > 0.$$

The left-hand side of Lemma 5.1 shows the positive effects of media independence on policy choices. When the media are more independent, rational voters more often trust their reports and are likely to believe that the incumbent who chooses $p = 1$ is a good type rather than a corrupt type that captures the media. This fact means that normal incumbents are more motivated to choose the correct policy, $p = 1$. In short, media independence enhances incumbents' motivation to choose a high-quality policy.

The right-hand side of Lemma 5.1 shows the relationship between the prior and posterior beliefs about the type of incumbent. By observing $p = 1$, voters believe the incumbent is more likely to be good if the prior probability of a good type is higher. Lemma 5.1 is thus rather intuitive and consistent with most existing research.

On the contrary, the normal voters' posterior beliefs of themselves being excellent, ρ_{1+} , become

$$\rho_{1+} = \frac{\theta}{[1 - (1 - \beta)(1 - \theta)] + \frac{(1-\beta)(1-\theta)}{\kappa(1-\eta)}} \quad (5.6)$$

Lemma 5.2

$$\frac{\partial \rho_{1+}}{\partial \kappa} > 0, \quad \frac{\partial \rho_{1+}}{\partial \eta} < 0.$$

Voters tend to have a more positive self-image if the media are less independent. In a society with less trustful media outlets, the inconsistency between voters' signal ($\sigma_n = 0$) and the reports on the effectiveness of the project ($s = 1$) seems to be more plausibly explained as voters obtaining the correct signal but the media being captured by a corrupt incumbent. When a media outlet that reports conflicting information is less trustful, voters tend to believe in their own signal and consequently have more confidence of themselves being "excellent." Their perceived possibility of being excellent decreases if they believe the media are more independent. In this situation, voters are more likely to update their beliefs about their own type according to the reports by the media.

The electorate are more likely to have a more negative self-evaluation if there are more good incumbents. Given the extent of media capture, a larger proportion of good incumbents simply means fewer corrupt incumbents and consequently less media capture. This fact means that voters are more likely to trust media reports. On the contrary, voters are more suspicious when obtaining the contrasting signal and in turn have a more negative estimation of themselves being excellent.

Proposition 5.2 *Without cognitive dissonance, greater media independence (a decrease in κ) reduces the possibility of the pandering equilibrium (an increase in $\underline{\lambda}$).*

As in most studies of political economics related to the media, Proposition 5.2 shows that media independence plays a positive role in political outcomes. In a democracy with more independent media, incumbents are more likely to

choose the more efficient policy. The intuition here is that when the media are more independent in reporting the true state, voters trust their reports more. When receiving contrasting reports, general voters are more likely to consider they have received the incorrect signal about the true state and formed an expectation about the wrong policy. In other words, media reports are more able to adjust to this incorrectness and inform voters of the true state. More informed voters are more likely to judge the type of incumbent accurately. Therefore, incumbents face less suspicion when choosing those policies that are efficient but not inconsistent with the expectations of general voters. The normal incumbent thus has higher motivation to choose an efficient but unpopular policy. In this sense, media independence can resist populism.

Contrarily, in a country with low trust in the media, the electorate stick to their own signals even when the media publish contrasting reports. If the office spoils from being re-elected are sufficiently large, populism takes place. Hence, the incumbent chooses the popular but wrong policy.

5.3.2 With Cognitive Dissonance

When individuals encounter new information that conflicts with their preexisting beliefs, there are usually two ways in which to reduce dissonance: (i) justifying their preexisting beliefs by discounting or ignoring the new information or (ii) adjusting their initial beliefs according to the new information.

We assume that the electorate have an inherently positive self-evaluation. They believe that they are excellent, at least at a certain probability. According to the information revealed by the incumbent and the media, the electorate update their self-evaluation. If the updated self-evaluation of being excellent is

too low, even lower than their lowest acceptable level (below $\underline{\rho}$), the electorate experience psychological discomfort and tend to manipulate some prior beliefs to reduce dissonance. The dissonance reduction process is modeled as follows.

Definition 5.1 *There exists a minimum posterior $\underline{\rho}$ that voters can accept.*

When $\rho_{1+} < \underline{\rho}$, voters psychologically manipulate the prior probabilities of η to $\hat{\eta}$, while

$$\frac{\theta}{[1 - (1 - \beta)(1 - \theta)] + \frac{(1-\beta)(1-\theta)}{\kappa(1-\hat{\eta})}} = \underline{\rho}.$$

The target of manipulating here is assumed to be η , the proportion of good incumbents. Other variables can also be chosen as the target of manipulation. From Definition 5.1 we know that when $\rho_{1+} < \underline{\rho}$, to keep $\underline{\rho}$,

$$\frac{\partial \hat{\eta}}{\partial \kappa} > 0 \tag{5.7}$$

In a society with more independent media, the electorate under cognitive dissonance tend to underestimate the proportion of good incumbents. The electorate receive contrasting reports from the media ($s = 1$). The more independent the media are, the stronger the threat to voters' self-image is. To retain the self-image of being excellent, the electorate place less trust in politicians. They tend to suppose that there are not as many good incumbents as they initially believed. Voters' conjecture here is that although the media are more independent, the proportion of corrupt incumbents is high (fewer good incumbents), the media are still likely to be captured and report false information, and thus I am likely to receive the correct signal and am still excellent.

In this way, the impact of the lower extent of media capture can be offset by the perceived increase in the number of corrupt incumbents. Mathematically, voters manipulate $\hat{\eta}$ to keep $\kappa(1 - \hat{\eta})$ constant.

Proposition 5.3 *With cognitive dissonance, when*

$$\rho_{1+} = \frac{\theta}{[1 - (1 - \beta)(1 - \theta)] + \frac{(1-\beta)(1-\theta)}{\kappa(1-\eta)}} < \underline{\rho},$$

greater media independence (a decrease in κ) increases the possibility of the pandering equilibrium (a decrease in $\underline{\lambda}$).

The results of Proposition 5.3 contrast with those of Proposition 5.2. Under the consideration of cognitive dissonance, media independence harms the efficient selection of policies. The more independent the media are, the more the electorate produce severer distortions about the real world to retain their own self-image. This distortion may prevent the incumbent from choosing good policies.

With cognitive dissonance, the incumbent who implemented the correct policy ($p = 1$) is less likely to be considered to be “good” in a society with more independent media outlets. To keep $\underline{\rho}$, a reduction in κ results in a decrease in $\hat{\eta}$. From (5.5), we can see that μ_{1+} lowers if $\kappa(1 - \hat{\eta})$ is fixed and $\hat{\eta}$ is lower. In this scenario, the electorate are more likely to suspect that the incumbent is corrupt after observing $p = 1$. Then, the incumbent faces a higher risk of being “corrupt” when choosing an unpopular policy ($p = 1$). Therefore, normal incumbents are less motivated to choose efficient policies.

In short, media independence brings about negative political outcomes if the electorate strongly adhere to their preexisting beliefs and under the situation of cognitive dissonance, incumbents prefer to pander to voters, eschewing more efficient but less popular policies. This negative tendency is stronger in a society with more independent media. These results imply that it would be prudent for certain countries to enhance media independence if their citizens have strong preexisting beliefs or attitudes that are not necessarily correct.

5.4 Conclusion

We present a two-period political agency model to analyze the influence of media independence on incumbents' policy choices. The incumbent decides his or her policy choice in the first period, at the end of which he or she faces an election. A media outlet reports the consequences of the policy choices but it may be captured by corrupt incumbents. The electorate update their prior beliefs about the type of incumbent and themselves (normal or excellent) according to their private signal about the state, incumbents' policy choice, and media reports, and then vote.

Our model first shows that greater media independence helps politicians resist pandering by weakening incumbents' motivation to do so. However, if the electorate strongly stick to their preexisting beliefs of being excellent, contrasting reports from the media about the true state cause cognitive dissonance. In the process of alleviating this dissonance, the electorate are assumed to distort their prior beliefs on some state variables. This distortion may lead them to make more negative judgments about those incumbents that choose unpopular but actually efficient policies. In this scenario, incumbents have

more motivation to pander if the media are more independent.

Chapter 6

Conclusion

This dissertation provides theoretical analysis on several interdisciplinary issues: 1) the effects of globalization on minor cultures/cultural goods, which is under heated debate in cultural economics; 2) the effects of the public's beliefs on the real extent of media capture, which is a hot topic in political economics of media; and 3) the effects of cognitive dissonance, a concept in social psychology, on the political consequences of media independence. Three theoretical models, shown in Chapters 3–5, were constructed to analyze these issues respectively.

Beginning by reviewing research on the field of cultural economics in Chapter 2, we found contrasting facts and arguments about the effects of globalization on minor cultures and cultural goods. This provided the main motivation of the analysis in Chapter 3. Then, we moved onto a subgroup of cultural goods, namely the media, in Chapter 4. Compared with other cultural goods, the media play an especially important role in political economics by providing most of the information on which the masses rely to make decisions. The review of the consumption of cultural goods in Chapter 2 allowed us to recognize the importance of reputation on demand for the mass media. This finding

motivated us to endogenize the cost of media capture as a monetary loss that results from a loss of reputation. The theory of cognitive dissonance influences how individuals process the information provided by the mass media to the public. Thus, the analysis presented in this dissertation connects research on cultural economics, political economics, and social psychology.

Chapter 2 provided an overview of existing research on cultural economics, especially theoretical studies of the consumption of cultural goods. In Chapter 3, by developing a quality evolution process, we introduced the positive effect of globalization on minor cultures. Culture in this context is created by individuals and benefits from individuals' exposure to cultures or the consumption of various cultural products. Globalization provides domestic consumers with much richer choices of cultural goods. In Chapter 4, we discussed the effects of prior beliefs on the extent of media capture. Our results showed that prior beliefs, independent of other economic variables, can affect the extent of media capture in equilibrium. Meanwhile, inequality in society increases media capture. Chapter 5 incorporated theory of cognitive dissonance, under which people's prior beliefs about the state variables may become distorted when obtaining contradictory information from the media. This distortion can bring about more negative effects on policy choices in a society where the media are more independent.

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