Irony Illustrated:

A Cross-Cultural Exploration of Situational Irony in China and the United States

by
Xiang Li

To my mother Youying and my father Yong

ACKNOWLEDGMENTS

EXECUTIVE SUMMARY

Many researchers of irony have expressed curiosity about the cultural implications of recognizing and appreciating irony. In fact, some have gone so far as to express belief in the confinement of the phenomenon to the Western hemisphere. This paper deals exclusively with situational irony and uses survey data from both Chinese and U.S. samples to compare and contrast cross-cultural results.

A situation can be classified as ironic when individual intentions or social expectations are disrupted by an incongruous reality. This paper first reviews the relevant theory relating to irony and the background of irony in China, and then discusses the research design and findings of the study. The study conducted involves a series of ironic and non-ironic cartoons and surveys the respondents' comprehension, appreciation, and reaction to each cartoon. Results from the analysis suggest that while situational irony is present and generally understood in China, there are significant cultural differences in its treatment and preference between China and the United States.

CONTENTS

I. INTRODUCTION

Although most formal introductions to the concept of "irony" take place within language and literature classrooms after elementary education, studies have shown that children begin to understand components of irony by 5 or 6 years of age (Creusere, 2000). The early development of a child's ability to understand irony suggests that formative experiences with the concept (prior to classroom introduction) exist beyond the context of textbooks and schoolwork. Although academic studies of irony are primarily housed in the fields of rhetoric and literature, irony itself is a phenomenon common even in our daily lives.

The classic account of irony, "intending the opposite of what is said or written," is perhaps also the most simple and common. Indeed, this type of contradictory double layering between what is said or written and what is actually intended is an aspect of irony; yet how can all the complexities of such a sophisticated yet common phenomenon be captured so easily? To attempt a taxonomy and definition of a phenomenon so nebulous that it disappears as one approaches it is a desperate adventure (Muecke, 1969). Nevertheless, a proliferation of literature on the concept, especially within the recent half century, attests the courage of scholars in attempting answers to our uncertainties about irony. What is it? What forms does it take? Why does it exist? What is its history? And is it found in all cultures? This paper relies on existing literature to offer background to the earlier questions, but forges new ground regarding the last question in a cross-cultural examination of irony.

This thesis centers on an exploration of irony, specifically situational irony, in China and the United States. The topic, albeit very narrow, merits a lot of attention from the study of irony given the importance of understanding cross-cultural differences in comprehending and appreciating irony. Moreover, the paper is also motivated by cultural conflation of irony, sarcasm and satire in China.

Common Chinese equivalents of irony, as defined by numerous Chinese sources, are 讽刺 (*fěngcì*), 讥讽 (*jīfěng*), and 反讽 (*fǎnfěng*). Yet 讽刺 (*fěngcì*) is also the Chinese equivalent of satire, 讥讽 (*jīfěng*) is a better definition for sarcasm, and examples of 反讽

(*fǎnfěng*) often point one to literary works that are all the more related to satire. Granted, the distinctions between irony and satire or sarcasm are not entirely clear to non-Chinese cultures and societies either; however, the existence of irony (and its understanding and appreciation) is remarkably more prevalent in the Western cultures. This begs the question of whether irony and its understanding and appreciation are similar across the Chinese and U.S. cultures. Given the general lack of humor research regarding China, this paper will prove to be a stepping stone towards a better sociological understanding of the current conditions of humor, specifically irony, in China. This paper also contributes significantly to the thin literature available regarding situational irony and the cross-cultural implications of irony.

This paper will first establish a theoretical framework in understanding irony and its subset form of situational irony. We will then explore the current state of irony in China before presenting a hypothesis regarding cultural differences of understanding and appreciating irony in China and the United States. Subsequently, we will delve into primary research conducted in the form of a survey to test our hypotheses. Finally, we will analyze our findings and conclude with suggestions for future studies in the area of irony and cross-cultural studies on humor.

II. THEORETICAL BACKGROUND

Ironology: A history of irony

The phenomenon of irony existed before it was named. An estimation of its antiquity is beyond the scope of this paper, but we will trace its roots back to its first known integration into the human language as the Greek word *eironeia*. First recorded in Plato's *Republic* and applied to Socrates by one of his victims, *eironeia* seems to have meant something similar to "a smooth, low-down way of taking people in" (Muecke, 1970, pp. 14). However, even among the ancient Greeks, the meaning of *eironeia* was inconsistent. To Demosthenes an *eiron* was one who evaded his responsibilities as a citizen by pretending unfitness, while to Theophrastus, an *eiron* pointed to someone both evasive and noncommittal. The famous Roman orator, Cicero, was the first to give *ironia* a denotation beyond the Greek perspective of it as a mode of behavior. In Cicero's usage of

the word, it evolved to also be applied to a deceptive use of language: to blame by ironical praise or to praise by ironical blame (Muecke, 1970).

Even though the English language has long had many embryonic forms of irony, such as "jeer" and "mock," the word "irony" does not appear in English until 1502 and did not come into general use until the early eighteenth century. In England, as in the rest of modern Europe, the concept of irony developed slowly. Its first definitions treated irony principally as a figure of speech, revolving around the ideas of "saying contrary of what one means," "saying one thing but meaning another," and "mocking and scoffing" (Muecke, 1970, pp. 16).

Fast forward to the start of the nineteenth century: the word "irony" begins to take on a number of meanings, ranging from newly developed variations of irony such as tragic irony, world irony, cosmic irony, philosophical irony, etc. The one most relevant to this paper is the idea presented by Connop Thirlwall in his article "On the Irony of Sophocles." Thirlwall's observations seem to have conceived of an irony without an ironist (one that creates irony) and suggested that irony may reside in the attitude of an ironic observer, or rather, in the situation observed (Thirlwall, 1833, pp. 489–90):

> There is always a slight cast of irony in the grave, calm, respectful attention impartially bestowed by an intelligent judge on two contending parties, who are pleading their causes before him with all the earnestness of deep conviction, and of excited feeling. What makes the contrast interesting is that the right and the truth lie on neither side exclusively…here the irony lies not in the demeanor of the judge, but is deeply seated in the case itself, which seems to favor each of the litigants, but really eludes them both.

Thirlwall's analysis hints at the establishment of situational irony, where irony is not created, but instead perceived in the interpretations of an observer of an event or situation.

Despite these advances in the evolution of irony, it is still most commonly associated with its use in literature and speech. The concept of irony is notoriously elusive, and many attempts to box it into a catch-all definition inevitably begin with a disclaimer noting the irony of the difficulty in defining irony. Part of the difficulty arises from irony's latency in multiple complicated forms. But additionally, it is a developing phenomenon. Our understanding and interpretation of it evolves with time.

Taxonomy of irony

Most of the research on irony has been done within the literary paradigm. In general, irony involves a contradiction between appearance or expectation/intention and reality. Kreuz and Roberts define four (literary and non-literary) categories of irony as follow:

1. Socratic irony
2. Dramatic irony
3. Verbal irony
4. Situational irony

Socratic irony is the pretense of ignorance of a given subject, normally for pedagogical purposes. This form of irony stems from Plato's depiction of Socrates' habitual practice of acting foolish to make his fellow citizens see their own irrationality. Dramatic irony is characterized by a discrepancy between what the audience knows to be true and what the character perceives to be true, such as Oedipus' mistaken beliefs in his tragic epic. Verbal irony is a discrepancy between what a speaker or writer says and what he or she believes to be true, such as the utterance "What a sunny day" during a storm. Finally, situational irony involves an incongruity between reality and expectations in a state of affairs, such as the firehouse burning to the ground (Kreuz & Roberts, 1993). We will focus primarily on situational irony for the rest of the paper, but we must first discuss the similarities and differences between irony, satire, and sarcasm.

Irony vs. satire and sarcasm

Irony, satire, and sarcasm are often commonly confused and considered to be more or less identical. On the surface, all three concepts are related to pretense (a superficial masking of true intent or meaning) and run the risk of being misunderstood for being taken seriously, but there are major distinguishing factors to help us delineate their differences. While irony is often used by a speaker in a sarcastic context, irony is not necessarily sarcasm. Sarcasm is strictly spoken (unless captured as dialogue in written literature) whereas irony, as mentioned previously, can be manifested in multiple forms of medium such as literature, situations, drama, etc. Additionally, sarcasm employs a distinctive tone that immediately reveals the speaker's attitude, but irony tends to involve more subtlety and wit. In two experiments conducted by Lee and Katz, subjects read a

series of passages involving irony and sarcasm. One group rated a target utterance in terms of the extent to which it was a good example of sarcasm, and second group rated in it terms of the extent to which it was a good example of irony. The results of the experiment suggest that ridicule of a specific victim plays a substantially larger role in sarcasm than irony (Lee & Katz, 1998). The ridicule conveyed by sarcasm is specific; a certain victim is ridiculed for a particular reason. In contrast, the ridicule conveyed by irony seems to be more diffuse. Although a speaker may often use irony in a sarcastic context, irony also exists in other verbal forms, such as jocularity, rhetorical questions, hyperbole, and understatement (Gibbs & Colston, 2007).

Satire usually implies the use of irony for censorious or critical purposes and is often more limited in scope than irony because it is mostly directed at public figures, institutions, human vices, politics, etc. Satire is also mostly motivated to ridicule its subject with the desire of reform. For example, a satirist may deride human folly in an effort to correct it. Satire may use irony as a tool, but irony typically lacks satire's reforming intent.

We can differentiate amongst irony, sarcasm, and irony by thinking of the varying dimensions across two levels: attitude towards the subject and level of intimacy with the subject. On the first level, attitude towards the subject, sarcasm tends to be the most scorning and contemptuous. Satire ranks second because of its generally more subtle form. On the second level, intimacy with the subject, sarcasm tends to be direct and particularized towards an intimate individual. Satire, on the other hand, tends to relate to more distant subjects that are also often on a grander scale. Unlike sarcasm and its sentient victim, satire can also be directed towards inanimate institutions or situations. Irony, on the other hand, is best thought of as a method through which certain communicative goals, such as satire or sarcasm, can be accomplished (Kreuz & Roberts, 1993).

Situational irony

According to Gibbs, a context that sets up an "ironic situation" through a contrast between expectations and reality facilitates ironic interpretation (Gibbs, 2002). We can also consider situational irony as an incongruity in a situation arising from tension between what is expected or intended and what actually happens. The incongruity is often

filled with a sense of misfortune or unfairness for agents involved in the situation. The incongruity in the situation itself is not intended and is often out of the hands of the agents who may be victims of the situational irony. Situational irony differs from other forms of irony in a fundamental way: situational irony is observed whereas other forms of irony are created. Muecke noted that we make the distinction between verbal and situational irony when we say, on the one hand, "He or she is being ironical" and on the other hand, "It is ironic that…" (Muecke, 1970, pp. 50). While verbal irony contains an ironist, most types of situational irony merely contain an observer. According to Kierkegaard, situational irony is "not present in nature for one who is too natural and too naïve, but only exhibits itself for one who is himself ironically developed…To become conscious of this requires a consciousness which is itself ironical" (Kierkegaard, 1966, pp. 271–2). Kierkegaard's analysis suggests that an ironical consciousness must exist within an observer for him or to successfully perceive the irony of a situation.

Within the realm of humor, a tiny portion of literature has been produced to analyze the concept of irony. Likewise, within the literature of irony, situational irony has not been granted much attention. Although it is similarly a complex and commonplace phenomenon as verbal irony, it has received nowhere near the same amount of attention from scholars. Most of the available resources regarding irony are still deeply entrenched within a literary framework and approach. Only three attempts in recent literature have been made to give cognitively plausible accounts of situational irony. These exceptions to the general trend of focusing on verbal irony are three separate treatments of irony proposed by Littman and Mey (1991), Lucariello (1994), and Shelley (2001) that deal exclusively with situational irony.

In their work, Littman and Mey attempt to define situational irony in a way that would allow for even a computer program to recognize and generate it. However, this reasoning overlooks the importance of perspective in situational irony. Since situational irony is not created but observed, the perspective of the observer is crucial to building an ironical consciousness of the situation. How one perceives the situation is dependent on conditions such as whether the person was simply told of the situation or is a participant in the ironic situation. In other words, perspective makes situational irony subjective and

entirely dependent on the observer's point of view. Thus, a computer program that will be able to objectively gauge the situational irony of a scenario is not realistic in application.

In addition, irony deals with an ironical consciousness that is inherently inaccessible to artificial intelligence. Littman and Mey attempt to pre-empt this indictment by distinguishing between the perception of irony and its appreciation. However, just as with humor, the perception of situational irony may also vary across cultures. Nevertheless, the idea that "appreciation of irony can be divorced from its perception" is indeed an important distinction to be made (Littman & Mey, 1991, pp. 146). Nevertheless, both the perception and appreciation of situational irony are subject to one's interpretation of the event, which is a function of one's perspective, background, culture, etc.

Littman and Mey go on to offer three types of situational irony, defined as: intentional goal/plan irony, serendipitous goal/plan irony, and competence irony. According to these categories, certain combinations of plot twists and thwarted intentions constitute irony. However, far from exhausting the possible types of situational irony, Littman and Mey give excessive weight to incongruities between human intentions and reality in their categories and simply do not consider forms of situational irony that arise from human expectations such as the irony in having the suggestion box outside of the CEO's office being directly emptied into a recycling bin by cleaning workers after office hours. Littman and Mey make an important connection between irony and humor, asserting that "humor and irony are intimately related" (1991, pp. 149). However, again they fail to take into consideration the importance of human perspective and incorrectly argue for the furthering of the study of humor through the development of artificial intelligence that can recognize and generate the object of study, namely humor.

Lucariello's article adds dimensions to our understanding of situational irony by identifying four features, a combination of which she alleges to be present in all ironic situations. Unexpectedness and human fragility are two of the four features present in a majority of situational ironies. Unexpectedness is a feature shared by all ironic situations, in that ironic events are surprising ones. But unexpectedness is certainly not a sufficient condition for irony as not all surprises are ironic. Human fragility carries the idea that ironic events "mock" the normal order of things; and expose a "theory of the world's unpredictability," capturing our understanding that we cannot rely on ourselves, on others,

or on events to run a standard course….they signal the vulnerability of the human condition—intentionality, actions, states, outcomes" (Lucariello, 1994, pp. 129).

In considering situational ironies, a part of the unexpectedness in circumstances arises from a form of event knowledge known as the "script," which is "a general knowledge structure or schema for events that realize a high reliability of expectation" (Lucariello, 1994, pp. 130). Scripts underlie frequently enacted activities such as ordering at the restaurant or conventional ones such as getting married. Scripts are mental representations of "what is supposed to happen in a particular circumstance" (Ashcraft, 1989, pp. 338) and have to do with our sense of regularity or control in the world. The acknowledgment of situational ironies emerges when a set of affairs deviates ironically from our scripts. The irony in the deviation or unexpectedness relates back to the situation's mockery of human fragility in our intentions and expectations.

From a collection of recorded examples of situations mentioned as ironic by individuals (such as newscasters, ordinary conversationalists, and literary critics) as well as examples presented by Muecke in his literature on irony, Lucariello analyzed the results and developed a preliminary taxonomy of ironic event types. Although a wide variety of situations is typically classified as ironic, she identified seven major types according to their typifying characteristics (Lucariello, 1994, pp. 131):

1. Imbalances: Tags cases of inconsistency or opposition in human behavior or borne by situational elements.

2. Losses: Individual faces only a loss. The key feature of such losses is their cause, either self or fate-inflicted.

3. Wins: Events wherein an individual ends up with a win outcome, where the means to losing becomes the means to winning or person wins inadvertently.

4. Double outcomes: The individual experiences two outcomes that are related, either loss-loss (i.e. a highly improbable loss recurs) or win-loss (i.e. a win that turns out to actually be a loss).

5. Dramatic: Events wherein an observer (audience, reader, etc.) knows what a victim has yet to find out.

6. Catch-22: Loss outcome as an unavoidable result of all available avenues of necessary and appropriate action.

7. Coincidence: Assorted events, such as co-occurrences or sequences of actions having no conventional or causal basis.

By taking into consideration ironic situations that are outside the realm of individual intentions, Lucariello's taxonomy of situational ironies is much more comprehensive than Littman and Mey's model. We will resist exploring the subtypes that Lucariello also developed for each of the main seven categories, but the reader is urged to reference Appendix 2.1 for further information.

Shelley's treatment of situational irony is the most recent attempt to give cognitively plausible accounts of situational irony. Shelley first reviews the work of Littman and Mey and Lucariello. He indicts Littman and Mey's model for giving "logical priority" to verbal irony over situational irony by borrowing the literary concepts of "plot twists and communicative intentions" from verbal irony (Shelley, 2001, pp 776). Although he considers Lucariello's theory to be "richer and more plausible that Littman and Mey's," he also criticizes Lucariello for failing to explain the difference between irony and non-irony as well as neglecting to develop a theory to explain her data.

Shelley's bicoherence theory is based on the assumption that human cognition is organized to maximize "conceptual coherence," or logical interconnection and consistency. The theory refers to the simultaneous activation of elements or classes that "resist fitting together" (Shelley, 2001, pp. 778). Situational irony is acknowledged "when the accepted interpretation of a situation displays a bicoherent conceptual structure, affords adequate cognitive salience, and evokes an appropriate configuration of emotions" (Shelley, 2001, pp. 778). A bicoherent conceptual structure includes either a bicoherent class or bicoherent element as defined and explained below:

1. Bicoherent class: A class containing two elements that are conceptually incoherent with each other. Consider a class of books by one author with the following titles: *The travail of life in an imperfect world, why would God allow evil?* and *Curious George goes to the zoo*. This class of books is incoherent in the sense that it groups a light-hearted children's book together with weighty works on existential alienation (Shelley, 2001).

2. Bicoherent element: An element belonging to two classes that are conceptually incoherent with each other. Consider the same author's latest work, *Curious*

George seeks the way. This book is bicoherent in the sense that bookstores will stock it in both the children's section (for its colorful illustrations) and the philosophy section (because of the accessible manner in which it addresses important life issues) (Shelley, 2001, p. 779).

The theory of bicoherence also stems from Lucariello's proposition of scripts in situational irony: "When people say that they find a situation *ironic*, they mean that their conception of it defies the normal way in which situations fit with their repertoire of concepts, that this misfit is noteworthy in some way, that it evokes a particular kind of emotional response, and perhaps, that it has a special, moral significance" (Shelley, 2001, pp. 775). The idea that the perception of irony in a situation arises from the way the situation defies our normal event scripts is similar to Lucariello's proposal, but Shelley goes on to add that this misfit must be salient enough for our perception as well as powerful enough to evoke some kind of emotional reaction. These are important distinguishing factors of situational irony from merely coincidental or surprising events.

Cognitive salience measures how noticeable something is in relation to other things. The salience of a situation depends on the contents of the situation and how those contents related to the individual conceiving them. Cognitive salience is a function of biological salience (i.e., survival needs dictate that a sound moving closer to us is more salient than a sound moving away from us) and cultural salience (i.e., higher salience for asymmetrical objects in certain cultures).

Emotional configuration is also central to situational irony as a conceptual structure. Recent research in cognitive science indicates that unless there is specific evidence to the contrary, we should assume that emotions are an integral feature of any cognitive phenomenon. Shelley asserts that emotions relate to situational irony in at least two ways. First, some kinds of situational irony may evoke particular emotions only. For example, some kinds of irony may evoke mirth and not sadness. In addition, heightened emotional response tends to increase the salience of a situation and thus reinforce or even increase the sense of irony. Emotional response is a function of how the situation relates to the observer's goals, concerns, or preferences (Shelley, 2001). As quoted by Shelley, Muecke expressed this point succinctly in a metaphor: "Other things being equal, ironies will be

more or less forceful in proportion to the amount of emotional capital the reader or observer has invested in the victim or topic of irony" (Muecke, 1982, pp. 55).

Now that we have established a working knowledge of the theories related to irony and situational irony, we will next explore the Chinese understanding of irony.

III. IRONY IN CHINA

The Chinese equivalent of irony varies from source to source, but the most commonly seen definitions are: 反话 (*fǎnhuà*), 讽刺 (*fěngcì*), 讥讽 (*jīfěng*), and 反讽 (*fǎnfěng*). An examination of each will reveal the blurred differences in China regarding the nuances amongst irony, sarcasm, and satire.

1. 反话 (*fǎnhuà*) translates literally as "opposite talk," which is actually a more fitting translation for sarcasm in definition and application. It is also commonly used as sarcasm, although some sources in China will still list it as an equivalent for irony.

2. 讽刺 (*fěngcì*) translates literally as "satirize prick," which in its Chinese definition as "the exposure, criticism, or mockery of a person or thing through the use of comparison, exaggeration, etc" is still more closely related to satire than irony (Modern Chinese Dictionary, 1998).

3. 讥讽 (*jīfěng*) in its Chinese definition is more closely aligned with "to ridicule or mock."

4. 反讽 (*fǎnfěng*) is the closest definition to irony, and this will be our working definition of irony in China for the purposes of this paper.

It is also interesting to note that although the input of the Chinese definition of irony will often generate a combination of these aforementioned words, when one uses the same source to define these Chinese terms in English, the terms "sarcasm," "satire," and "ridicule" are often generated in place of expected result of "irony." The inconsistency amongst the aforementioned terms and their English-Chinese and vice versa translations is a telling sign of confusion and blurring amongst the concepts of irony, satire, and sarcasm.

In the study of humor in ancient Chinese philosophy, verbal irony is a common yet subtle device used in the *Analects* and *Zhuang Zi* (Harbsmeier, 1989). Although irony has long been a rhetorical and literary device in ancient China, the term most commonly identified with irony (反讽 — *fǎnfěng*) is actually a relatively new term in the Chinese language. It was not until 2002 that the term 反讽 (*fǎnfěng*) appeared under the section "New Words/Meanings" (新词新义 — *xīncí xīnyì*) in the *Modern Chinese Dictionary* (现代汉语词典 — *Xiàndài Hànyǔ Cídiǎn*). Even under its first appearance, its definition translates to a mix between satire and sarcasm: "to satirize from the reverse side; to use sarcasm to satirize" (Zhou, 2005, pp. 54). Beyond China's weak framework in differentiating irony from sarcasm and satire, there is also a noticeable predisposition in the acknowledgment of what is considered irony in favor of verbal irony over situational irony.

In an online search of articles appearing in the *People's Daily* (one of China's major newspapers) from 1946 to 2002, the term 反讽 (*fǎnfěng*) does not appear in any search results before 1987. In search results after 1987, the term appears in 21 separate articles, 19 of which are all literature reviews (Zhou, 2005). Furthermore, the general trend seems to be that when common examples of 反讽 (*fǎnfěng*) are cited in China, most of these supposedly representative exemplars mostly point to literary cases that are often stained with satire; cases in point are the often referenced works by 鲁迅 (*Lǔ Xùn*) or 老舍 (*Lǎo Shě*).

Even searches for the Chinese term of situational irony (情景反讽 — *qíngjǐng fǎnfěng*) predominantly point to literary examples of created ironies in literature and not observed ironies in life. By contrast, U.S. and Western culture are rather familiar with situational irony beyond its existence in literature. Alanis Morissette's hit song entitled "Ironic[1]" and Shelley's corpus study[2] (2001) of situational ironies cited in online news articles (which generated 250 situational ironies in 217 news articles) all consist of situational ironies arising from daily circumstances and not works of literature.

---

[1] There is considerable debate over the "ironies" in the song. Many believe that the situations mentioned in the lyrics are not ironies but rather merely unfortunate coincidences or surprising disappointments. See Appendix 4.1 for lyrics to the song.

[2] A study of collected online news articles with situations described or labeled as ironic. Articles were collected by a computer program from May 1997 through May 1998.

IV. HYPOTHESIS

In Western literature regarding irony, there has been some speculation regarding whether irony is strictly a Western phenomenon. Muecke asserts, "If irony were largely confined to the Western world, as I have been led to believe (but I do not vouch for that fact), this would be of immense significance" (1970, pp. 1). Although I do not believe that irony itself is reserved only for the Western hemisphere, I do believe there are significant cultural variations in terms of how irony is understood and appreciated. Shelley's bicoherence theory enjoys a connection with social psychology in the form of the *principle of causal attribution* that demonstrates the important implications of culture for the perception of irony.

The principle states that people use three kinds of information in order to explain the behavior of others. They look at 1) how a person behaves in a situation as compared to how that person behaved in the same situation previously (*consistency*), 2) how a person behaves in a situation as compared to how that person behaved in a similar situation in the past (*distinctiveness*), and 3) how the person behaves in a situation as compared to how other people have behaved in the same situation previously (*consensus*) (Nisbett & Ross, 1980). Both the bicoherence theory and the principle of causal attribution describe ways in which people explain and expect behavior in a given situation. The third kind of information, *consensus*, is largely rooted in a cultural context as people judge and explain behavior by using the behavior of those surrounding them (generalized as their culture) as a basis for comparison. Similarly, the composition of scripts and schemas for what is supposed to happen in a particular situation is also largely determined by our expectations shaped by culture. As such, it is predicted that different cultures should have different concepts of situational irony (Shelley, 2001).

As observed in China, the low awareness of situational irony as compared to verbal irony is worthy of exploration. Perhaps cultural differences affect the saliency of various forms of irony, and the saliency of originally not easily noticeable forms of irony can be enhanced through exposure to cultures with high saliency in that specific form of irony. In the following study, I will test whether exposure to Western culture holds significant explanatory power for the Chinese sample population's ability to understand

and appreciate situational irony. I will also compare whether there are significant differences between the understanding and appreciation of situationally ironic cartoons between the U.S. and Chinese sample populations. Considering the low awareness of situational irony in China and the relatively higher cultural awareness of situational irony in the United States, I predict that the Chinese will have a significantly lower average comprehension and appreciation of the situational irony in the ironic cartoons. Similarly, if we assume that positive reactions to the cartoons correlate with appreciation and negative reactions correlate with other responses such as disapproval or confusion, I predict that the U.S. population will have higher frequencies in positive reactions and that the Chinese will have higher frequencies of negative reactions. In addition, I believe the subject of the situational irony holds implications for the respondent's comprehension and appreciation levels. Given the predominance of ties and confusion between irony and satire in China, I predict that situational ironies that are reflective of incongruities between social expectations and reality (which are more similar to satire) will obtain higher means in comprehension and appreciation than ironies between individual intention and reality.

V. RESEARCH DESIGN

To analyze a sample Chinese population's ability to understand and appreciate situational irony and compare its results with a sample U.S. population, surveys consisting of a series of 15 ironic and non-ironic cartoons were distributed electronically to 126 residents in the United States and 212 Chinese residents in mainland China. Respondents were asked to identify their initial reactions as well as rank their understanding and appreciation of each cartoon. Neither the concept of situational irony nor the research purposes of the survey was disclosed to the respondents, assuring that they would respond on the basis of independent judgment and knowledge. Several questions were addressed: How do the two populations compare in their understanding of the humor in the cartoons? How do the two populations compare in their reaction and level of amusement and appreciation for the ironic cartoons? And finally, does exposure

to Western culture correlate with the Chinese population's ability to understand or appreciate situational irony?

Sample populations

The survey was created in both English and Chinese, with minor differences between the two (to be discussed later). The English survey was distributed electronically via email to current U.S. residents and the Chinese survey was distributed electronically via email to ethnically Chinese residents in mainland China. Given the possibility that some respondents may have recently immigrated to the country of their representative sample, an additional question was included in both surveys to control for the number of years the respondents have resided in the United States or China. To avoid influences of foreign cultures distinctly different from the culture supposedly representative of the respondents, all data of respondents living in the United States or China for less than 4 years were excluded from analysis.

Distribution

The surveys were created on SurveyMonkey.com and distributed via emails with links to the survey as provided by SurveyMonkey.com. Convenience sampling was the primary form of sampling as initial emails were first sent out to those within the researcher's network. In hopes of better achieving a randomized sample of both the U.S. and Chinese populations, the first emails were sent with the objective and encouragement that the survey links prompt viral forwarding to the initial recipients' personal network. Other than clarifying that the survey was for the researcher's senior thesis on the subject of humor, no additional information regarding the survey was provided to the respondents. The base goal of distribution was n=100 for each survey.

Cartoons

A set of 15 cartoons was selected from a web search, comprising of 6 non-ironic and 9 ironic cartoons (see Appendix 1.1). Ironic cartoons were identified as cartoons specifically portraying situational irony. For these research purposes, we will use the definition of situational irony as defined by the bicoherence theory in its most basic form: the recognition of a bicoherent pattern as identified by the presence of a bicoherent

element or class in a situation. Specifically in the realm of cartoons we are analyzing, it is advisable to compare the intention/expectation with the reality of the cartoon. Bicoherent elements that belong to two classes that are conceptually incoherent with each other are sometimes present within the cartoons. For example, in Cartoon #5, black smoke rises from the chimneys of a factory that produces pollution masks. The factory (bicoherent element) belongs to two classes that are incoherent with each other: 1) producers of pollution and 2) protectors against pollution. In terms of bicoherent classes, consider an example from Cartoon #8, in which a "Watch your step" sign hangs at the base of the stairs of a noose platform. The platform itself is a bicoherent class that contains two elements incoherent with each other 1) a sign intended to ensure physical safety and 2) a means of execution. When the cartoon itself is the bicoherent class, we can think of the entire cartoon as containing two elements (the expectation/intention and reality of the situation portrayed) that are conceptually incoherent with each other. For example, in Cartoon #2, a hammock floats by a castaway stranded on a single-tree island. The intention within the cartoon is to use the hammock, but the reality of the situation disrupts this intention because the island has only one of the two trees needed to hang the hammock. The bicoherent class (situation within the cartoon) contains two incoherent elements (intention of using hammock and reality of missing the necessary instruments to actually use the hammock).

Non-ironic cartoons (henceforth referred to as NI cartoons) were also included in the survey to serve as a basis for comparison with the ironic cartoons. All chosen cartoons were reviewed and pre-sampled by several individuals other than the researcher herself to ensure a general consensus regarding the categorization of the chosen cartoons as ironic or non-ironic.

Given the cross-cultural nature of this research, cartoons were chosen as the vehicles portraying situational irony because of their low reliance on language to communicate its ironic message to the respondents. Most studies previously conducted on situational irony involved subjects reading vignettes of ironic situations or recalling and then writing down situations deemed to be ironic (Lucariello, 1994). As compared to reading or writing about ironic situations, cartoons reduce language bias and translation errors in the

research. Without the distraction of language, cartoons are the most distilled forms of situational irony.

Within the category of ironic cartoons, the cartoons were further divided into two groups based on their content. Cartoons dealing with common and particularized topics such as the winning of the lottery post-mortem and the drifting of a hammock near a castaway on an island with one tree are henceforth labeled as IE (ironic everyday) cartoons. Other cartoons relating to social expectations and intent that are reflective of broader social commentary such as topics of environmental protection and bureaucratic apathy are henceforth referred to as IS (ironic social) cartoons. One possible way of distinguishing between IS and IE cartoons is to consider the differences between intention and expectation in the situational ironies of the cartoons. Intentions typically relate to individuals and their goals, and the irony of the everyday cartoon thus arises from the way reality or a twist of events thwarts or mocks the individual's intentions. For example, we see in Cartoon #11 (Appendix 1.1) that the intention of the treatment was to shrink the patient's tumor, but reality shows that the size of the patient's head was also reduced as a consequence. This outcome, although not thwarting of the individual's intention in treatment, is certainly mocking. This can also be categorized as "Double Outcomes — Prize Not What It's Cracked Up to Be" according to Lucariello's taxonomy (see Appendix 2.1).

Expectations, on the other hand, often relate to social norms and standards, and the irony arises from the way reality often mocks these social expectations. For example, consider Cartoon #3 (Appendix 1.1) where the expectation that feedback and suggestion forms are read by higher level officials is actually mocked by the reality of the disposal of these forms directly from their collection box. However, this type of distinction is not always mutually exclusive. Another way to consider the differences between IS and IE cartoons is to consider whether the victim of the irony portrayed in the cartoons can be generalized beyond the individual and enlarged to include society. For example, the irony of poorly regulated environmental protection (Cartoon #9) is a more generalized problem of society as compared to the irony of a man's winning of the lottery the night before his untimely death (Cartoon #6).

To avoid inherent differences between cartoons of U.S. or Chinese origin, the series of 15 cartoons were selected as a mix between U.S. and Chinese origins, with 9 created by U.S. cartoonists and 6 created by Chinese cartoonists. All IS cartoons were selected based on social expectations and intent that would be relevant and familiar to both the U.S. and Chinese cultures.

Furthermore, all irrelevant text such as the authorship and source were deleted from the cartoons to decrease distraction from the cartoon itself and avoid revealing the country and language of the cartoon's origin. Cartoons with words that were crucial to the comprehension of the cartoon were translated by the researcher in a way deemed best to preserve the original humor and intention of the cartoon. Cartoons with humor that were entirely dependent on the preservation of the language itself were not selected. Cartoon #12, generally deemed obscure and unclear, was intended as a wild card to assess whether respondents were responding truthfully about their level of comprehension.

Survey questions

Each cartoon was followed by a set of questions assessing the respondent's reaction, comprehension, and appreciation of the cartoon. The first question asks respondents for their initial reaction to the cartoon by providing a combination of options including both positive (smile and laugh) and negative (frown, cringe, and sigh) responses. Respondents also had the choice of selecting "Other" and specifying additional reactions in more detail. This question was motivated by the idea that facial expressions are physical and natural manifestations of one's appreciation and enjoyment (or lack thereof) of the cartoons. As presented in the discussion regarding the importance of emotional responses to situational irony, this question (as it is dichotomized between positive and negative facial expressions that correlate with positive or negative emotions) is intended to serve as a qualitative measure of the respondents' comprehension and appreciation for the cartoon. On an interesting side note, the Chinese language lacks an equivalent to the English concept of "cringe" or "wince." Thus, this option was excluded from the Chinese survey. This observed phenomenon of unparallel vocabulary regarding facial expressions between the Chinese and English languages will be further discussed in the conclusion and suggestions for future studies.

Hay's four-level model of humor appreciation is ordered as follows (each state presupposing the one to its left): recognition—understanding—appreciation—agreement (2001). This model motivates the last two questions in the set following each cartoon. Recognition and comprehension of a cartoon's humor does not equate to its enjoyment and appreciation. The two questions "How confident are you that you understood the humor in the cartoon?" and "How amusing did you find the cartoon to be?" were designed to capture the nuances between comprehending and appreciating the humor in each cartoon. The fourth state of Hay's model was not taken into direct consideration, although the positive and negative facial reactions (as surveyed in the first question) serve as reliable proxies to gauge agreement.

The researcher also struggled with the idea of including a question asking for the respondent's assessment of each cartoon's level of irony. However, the ultimate decision excluded the question because the original intention of the research was meant to be a subtle test of respondents' ability to understand and appreciate situational irony under unprompted circumstances. Given the aforementioned fact that situational irony is primarily observed rather than created, its spontaneous observation and comprehension in the cartoons would be affected and/or primed by a survey question explicitly referencing the concept of irony.

Both surveys concluded with demographic questions including age, gender, state/province of residence, place of birth, level of education, level of income, occupation, and number of years residing in the United States or China. Intended for later comparison with respondent's ability to understand and appreciate situational irony, the Chinese survey also included a set of three additional questions measuring for the respondent's exposure to and understanding of Western culture.

Debriefing

Given the previously undisclosed intent of the survey, a debrief document was sent to all respondents indicating interest in the research purposes of the survey.

Limitations

Several limitations in the design of the survey exist and are discussed below:

1. *Sample frame*. Given the sampling frame of convenience sampling, the data collected may not be the most representative or diverse of the populations sampled. The network effect, where the survey is forwarded mostly to individuals similar to the respondent, may be a common phenomenon and thus limit the representativeness of the sample. From the initial results, gender and age imbalances in the responses seem to be a common problem across both sample groups.

2. *Range of irony*. Although the cartoons chosen are either ironic or non-ironic, it is difficult to control for the range and intensity of the irony present in the cartoons. The cartoons chosen are inevitably ranging in levels of humor and irony, which can be problematic for analyzing the respondents' level of appreciation for an ironic and non-ironic cartoon if one cartoon is generally considered more humorous than the other. For example, if the chosen IS cartoons are inherently more humorous or ironic than the IE cartoons, this may attribute to a misinterpretation that the sample population can better appreciate or understand the IS cartoons. However, this limitation can be overcome by the use of two different sample populations to serve as a basis of comparison.

3. *Cultural saliency of IS cartoons*. Although the researcher was careful in choosing IS cartoons culturally relevant to both the U.S. and Chinese sample populations, it is very difficult to control for cultural differences in the saliency of the ironies presented in the cartoons. For example, although bureaucratic inefficiency (Cartoon #3) is relevant to both the U.S. and Chinese cultures, this problem may be more salient in Chinese culture. This higher saliency may positively contribute to the Chinese sample's ability to relate to the cartoon and possibly increase its scores in comprehension and appreciation. This difference may bias our results when comparing the U.S. results to test whether the Chinese tend to appreciate IS cartoons more than IE cartoons, since the U.S. scores in appreciation and comprehension may be simply lower because of a lower cultural saliency in particular topics of the IS cartoons and not because of cultural differences in appreciation of IS and IE cartoons. However, the use of IS cartoons originating from both China and the United States may help to control for these differences,

since mixed origins should presumably help in randomizing any biases in cultural saliency.

4. *Blurry distinction between IS and IE cartoons*: The IS and IE categories are not entirely mutually exclusive of one another. Some cartoons, such as Cartoon #11, may be originally categorized as IS cartoons, but aspects of the cartoon could also reflect commentaries on social expectations and intentions. One possible interpretation would be that the cartoon is a comment on medical malpractice in society. Although IE cartoons can sometimes also be cross-categorized as IS cartoons, the IS cartoons in the survey are fortunately very distinct social commentaries. The IE cartoons that may also be construed to be IS cartoons will be given special consideration in the analysis.

VI. RESEARCH FINDINGS

The research derives from 159 completed Chinese surveys and 107 completed U.S. surveys. To eliminate data from recently immigrated respondents, who would presumably be unrepresentative of their new country, data from respondents who have not lived in their representative country for more than at least four years were also filtered out of the research.

Cross-cultural analysis

In making cross-cultural comparisons, three-way ANOVA models were tested to look at the effects of country, gender, and age[3] on the averages of comprehension and appreciation of ironic and non-ironic cartoons[4]. Thus the dependent variables were:

1. Mean I C — Average of a respondent's comprehension of the humor within the 9 ironic cartoons.

2. Mean I A — Average of a respondent's appreciation of the humor within the 9 ironic cartoons.

---

[3] Due to a skew of the data in higher number of younger respondents, the independent variable of age was dichotomized into two levels: 1) under 25 years of age and 2) 25 years and older.
[4] Please see Appendix 3.1 for statistical results to these tests.

3. Mean N C — Average of a respondent's comprehension of the humor within the 6 non-ironic cartoons.

4. Mean N A — Average of a respondent's appreciation of the humor within the 6 non-ironic cartoons.

For Mean I C, the model had an R-Squared of 0.2778 and indicated that people of the United States had a significantly higher average in comprehension of the humor within the ironic cartoons, with p < .0001. The older age group (≥ 25 years old) also has a significantly higher average in comprehension of the humor within the ironic cartoons, with p = .0131. Gender did not have a significant effect on the model.

For Mean I A, the model had an R-Squared of 0.091 and indicated that the Chinese had a significantly higher average in appreciating the humor of the ironic cartoons, with p < .0001. Both gender and age had no significant effects. For Mean N C, the model had an R-Squared of 0.139 and indicated that people in the United States have a significantly higher average in understanding the humor within non-ironic cartoons, with p < .0001. Age and gender did not have significant effects.

For Mean N A, the model had an R-Squared of 0.141 and indicated that the Chinese have a significantly higher average in appreciating the humor of the non-ironic cartoons, with p < .0001. Again, gender and age did not have significant effects[5].

From these initial cross-cultural comparisons, country has always had a significant effect and proves that there is a consistent trend in the cultural differences between comprehending and appreciating humor. In addition, the U.S. population has shown a consistent pattern in scoring significantly higher in comprehension of the humor in the cartoons (both ironic and non-ironic) and the Chinese population has also shown a consistent pattern in scoring significantly higher in appreciating the humor of the cartoons (both ironic and non-ironic). These findings certainly support the hypothesis regarding differences in cultural perceptions and appreciation of irony. But since they are not entirely conclusive, we now turn our attention to the frequency of positive and negative reactions to ironic and non-ironic cartoons to analyze the data more in detail.

---

[5] Interaction effects involving the interaction of country and sex, or country and age, were tested and found consistently insignificant.

Frequency of +/- reactions

Three-way ANOVA models were also constructed to test the effects of country, gender, and age on the frequency of the respondent's positive and negative reactions to both ironic and non-ironic cartoons[6]. Thus the dependent variables were:

1. Ironic +: Positive reactions to ironic cartoons

2. Ironic -: Negative reactions to ironic cartoons

3. Non-ironic +: Positive reactions to non-ironic cartoons

4. Non-ironic -: Negative reactions to non-ironic cartoons

In the Ironic + model, people in the United States have a statistically significant higher frequency in positive reactions to ironic cartoons than people in China (p < .0001); the older age group also has a more positive reaction to irony than the younger group (p = .0352). Gender had no significant effects. In the Ironic – model, the Chinese have a statistically significant higher frequency in negative reactions to the ironic cartoons than the U.S. population (p = .0031). Gender and age have no significant effects.

In the Non-ironic + model, people in China have a marginally significant higher frequency in positive reactions to non-ironic cartoons than people in the United States (p = .0593) and the older age group tends to have a higher frequency in positive reactions to non-ironic cartoons than the younger age group (p = .0442). In the Non-ironic – model, age, gender, and country have no significant effects on the frequency of negative reactions to the non-ironic cartoons.

The respondent's country of origin has a consistently significant effect on how the respondent reacts to ironic cartoons. Interestingly, the effects are respectively marginal and insignificant in the Non-ironic + and – models. Again this supports the idea of major cross-cultural differences in the way people in China and the United States respond to situational irony. Furthermore, the data shows that the U.S. population tends to have a significantly higher frequency of positive reactions to the ironic cartoons whereas the Chinese population tends to have a significantly higher frequency of negative reactions to the ironic cartoons.

The older age group also scored consistently higher in positive reactions to the ironic and non-ironic cartoons. A possible explanation for this is that the younger age group

---

[6] Please see Appendix 3.2 for statistical results to these tests.

may be overexposed to cartoons and this type of humor to the point of oversaturation. Another interpretation is that the older age group tends to have a lower threshold for appreciating humor.

Implications of cartoon topic (IE vs. IS cartoons)

In order to determine whether the topic of the ironic cartoons, as categorized by IE and IS cartoons, has implications for the population's mean appreciation and comprehension, four t-tests (assuming unequal variances) were run to determine if there were significant differences between the means of the Chinese and U.S. respondents in their comprehension and appreciation of IS and IE cartoons[7].

The first t-test compared averages of the Chinese population's mean in comprehending the IS cartoons (IS C) and IE cartoons (IE C). The t-test result shows that the IS C average of 7.713 is significantly higher than the IE C average of 6.505, with p = 5.56E-09. This supports the hypothesis that within the Chinese population, the average level of comprehension of socially ironic cartoons is significantly higher than the average level of comprehension of everyday ironic cartoons. The second t-test performed the same analysis for the U.S. population, and the results showed that the U.S. IS C of 8.916 is significantly higher than the U.S. IE C of 8.302, with p = .0003. This analysis supports the hypothesis that the Chinese population is better at comprehending socially ironic cartoons than everyday ironic cartoons. However, the findings are not conclusive. Since the U.S. population demonstrated the same results, we cannot be sure if there exists a cultural preference for IS cartoons over IE cartoons, or whether the selection of IS cartoons in the survey were simply more easily understood than the IE cartoons.

The third t-test compared averages of the Chinese population's mean in appreciating the IS cartoons (IS A) and IE cartoons (IE A). The t-test results show that the IS A average of 5.991 is significantly higher than the IE A average of 5.356, with p = .002. This supports the hypothesis that socially ironic cartoons will be better appreciated than the everyday ironic cartoons in the Chinese population. Interestingly, the U.S. analysis did not yield the same results this time. The fourth t-test, same analysis but for the U.S.

---

[7] Please see Appendix 3.3 for statistical results to these tests.

data, shows that there is not a significant difference between the U.S. population's appreciation for IS and IE cartoons. The results of the last two t-tests support the hypothesis that there is a cultural difference between the United States and China. Whereas the U.S. sample does not have a significant preference between IS and IE cartoons, the Chinese tend to appreciate socially ironic cartoons more than everyday ironic cartoons.

Exposure to Western culture

In order to determine whether exposure and understanding of Western culture has a significant effect on the Chinese population's comprehension and appreciation levels of the ironic cartoons, three-way ANOVA models were run with independent variables of 1) exposure to Western culture, 2) understanding of Western culture, and 3) exposure to Western entertainment against four dependent variables of 1) Mean I C, 2) Mean I A, 3) Mean N C, and Mean N A[8]. The independent variables, ranked on a continuous scale of 1–10 (with 10 being the highest) were taken directly from each respondent's assessment of his or her exposure and understanding of Western culture and entertainment (as included at the end of the Chinese survey).

From the analysis, we find that exposure to Western entertainment is significant and contributes positively to the Chinese population's mean in comprehending (p = .0001) and appreciating (p = .0084) ironic cartoons. It is also a significant predictor of comprehension of the humor in non-ironic cartoons (p = .0032), but not significant in appreciating the humor in non-ironic cartoons (p = .3530). The respondent's self-assessed exposure to Western culture and understanding of Western culture did not have a significant effect on any of the dependent variables.

Discussion

The three-way ANOVA findings explained above are summarized in the following chart. The t-test findings are not recounted below.

---

[8] Please see Appendix 3.4 for statistical results to these tests.

Model	R-Squared	Significant variable	Parameter estimate	Interpretation
Mean I C (Cross-cultural)	0.278	Country[1], p < .0001	+0.934	The U.S. has a significantly higher average in comprehending the humor of ironic cartoons
		Age dichotomized [1], p = .0131	-0.229	The older age group in both countries has a significantly higher average in comprehending the humor of ironic cartoons
Mean I A (Cross-cultural)	0.091	Country[1], p < .0001	-0.479	China has a significantly higher average in appreciating the humor of ironic cartoons
Mean N C (Cross-cultural)	0.139	Country[1], p < .0001	+0.638	The U.S. has a significantly higher average in comprehending the humor of non-ironic cartoons
Mean N A (Cross-cultural)	0.141	Country[1], p < .0001	-0.616	China has a significantly higher average in appreciating the humor of non-ironic cartoons
Ironic +	0.111	Country[1], p < .0001	+0.767	The U.S. has a significantly higher frequency in reacting positively to ironic cartoons
		Age dichotomized [1], p = .035	-0.284	The older age group in both countries has a significantly higher frequency in reacting positively to ironic cartoons
Ironic -	0.034	Country[1], p = .003	-0.391	China has a significantly higher frequency in reacting negatively to ironic cartoons
Non-ironic +	0.038	Country[1], p = .059	-0.169	China has a significantly higher frequency in reacting positively to non-ironic cartoons
		Age dichotomized[1], p = .044	-0.177	The older age group has a significantly higher frequency in reacting positively to non-ironic cartoons
Non-ironic -	0.012	No significant variables		
Mean I C	0.121	Western entertainment, p = .0001	+0.312	Exposure to Western entertainment has a significantly positive effect on the Chinese comprehension of the ironic cartoons
Mean I A	0.054	Western entertainment, p = 0.008	+0.217	Exposure to Western entertainment has a significantly positive effect on the Chinese appreciation of ironic cartoons
Mean N C	0.121	Western entertainment, p = .003	+0.259	Exposure to Western entertainment has a significantly positive effect on the Chinese comprehension of non-ironic cartoons
Mean N A	0.0497	No significant variables		

Generally speaking, age significantly contributes to and positively correlates with the comprehension of ironic cartoons. This supports the notion that irony is a complicated form of humor that requires development over time. U.S. respondents on average displayed consistently higher confidence in their comprehension of the cartoons, both ironic and non-ironic. But the data does not allow us to conclude whether the U.S. sample

is merely overconfident or simply more familiar with cartoon humor. Likewise, although the Chinese respondents also averaged consistently higher in their appreciation of all the cartoons, we cannot assume that the Chinese are better able to enjoy cartoon humor. However, drawing upon the data analysis above, several key takeaways regarding situational irony in China can be distilled below:

The Chinese sample is significantly more likely than the U.S. sample to react negatively to situational irony in the cartoons. The U.S. sample has a significantly higher frequency of positive reactions to ironic cartoons and the Chinese sample has a significantly higher frequency of negative reactions to ironic cartoons. The fact that the Chinese sample has a significantly higher frequency in reacting positively to the non-ironic cartoons dispels the idea that the Chinese sample tends to have more negative reactions to the cartoons in general.

If we look back to Hay's four-level model of humor appreciation, we can see that appreciation and agreement are generally independent of each other. Although the Chinese consistently averaged significantly higher in their appreciation of the ironic and non-ironic cartoons, this does not serve as a predictor of the sample's agreement with the cartoon. The respondent may find the humor of the cartoon funny while disagreeing with the message. Then, he or she "can support the humor, but cancel the implicature of agreement" (Hay, 2001, pp. 76).

Assuming that emotional reactions are a proxy for the observer's agreement with the irony, we can then theorize that the Chinese tend to react negatively to the ironic situations portrayed due to disagreement with the humor of the cartoon. However, it is difficult to extrapolate the reasoning behind their disagreement as it could vary from disapproval of the making light of a victim within an ironic situation, sympathy for the victim of the ironic situation, etc.

Socially ironic situations prevail in comprehension and appreciation in China. The Chinese sample has a significant appreciation preference for IS cartoons over IE cartoons. This trend was not observed in the U.S. sample, which supports the hypothesis predicting a Chinese preference for socially ironic situations over everyday ironic situations. This also fits sensibly within the observation that most examples of irony in China point to literary works of satire. Given satire's nature as a social commentary, the prevalence of

satire over irony supports the hypothesis that situational ironies related to social commentaries should be more salient and appreciable than situational ironies related to ordinary and individual affairs.

Exposure to Western entertainment has a significant effect on the Chinese comprehension and appreciation of situational irony. Exposure to Western entertainment played a significant role in the Chinese population's comprehension and appreciation of situational irony. The fact that general exposure to Western culture was not a significant variable suggests that exposure to Western entertainment is a more specific and relevant factor. U.S. sitcoms (situational comedies) have become increasingly popular in China. These sitcoms, such as the well-liked *Friends* series, are often predicated on humor from situational irony. Exposure to such sitcoms familiarizes its Chinese viewers with the humor of situational ironies and also possibly serves as an explanation for the correlation between exposure to Western entertainment and the Chinese sample's comprehension and appreciation of situational irony.

VII. CONCLUSION

Situational irony is a phenomenon of considerable cultural significance. This paper has explored the presence of situational irony in China and compared these findings to the presence of this phenomenon in the United States. From the field study surveying Chinese and U.S. respondents of their comprehension, appreciation, and reaction regarding a series of ironic and non-ironic cartoons, we are able to preliminarily delineate several important distinctions between the U.S. and Chinese sample groups. The Chinese sample tends to appreciate the humor within ironic and non-ironic cartoons significantly more than the U.S. sample. However, the Chinese respondents also tend to react more negatively (as measured by initial facial expressions) to ironic cartoons and react more positively to non-ironic cartoons. If we consider positive reactions to the cartoon as a form of agreement, then we can alternatively consider negative reactions as a form of rejection or disapproval. The results suggest that the U.S. respondents' reactions tend to agree with the irony and humor portrayed whereas the Chinese respondents either reject or disapprove of the irony and humor within the cartoon. Judging from the Chinese

results of high appreciation but negative reactions to the ironic cartoons, we see a validation of Hay's model in the independent relationship between appreciation and agreement of humor.

The data also demonstrated the positive contributions that exposure to Western entertainment makes to a Chinese respondent's comprehension and appreciation of situational irony. Finally, the Chinese results also suggest significantly higher appreciation levels for ironic cartoons related to social expectations (IS) as compared to ironic cartoons related to individual intentions (IE). This finding supports the idea that the Chinese population is better able to appreciate, and perhaps relate to, humor that is critical of certain aspects of society. One explanation of this observed trend worthy of further exploration would be the historical roots of humor in ancient China.

The earliest traces of documented Chinese humor often date back to the pre- and early Qin periods (Tang, 2004). Most forms of these documented instances of humor employed were known as "implicit admonition" (讽谏*fěngjiàn*) (Wang, 2001). In the pre- and early Qin times of political tension and sometimes censorship, only cleverly disguised forms of admonition and advice to the rulers were effective in being considered. Straightforward admonition (直谏*zhíjiàn*) often angered rulers and brought about corporal punishment for the brazen and reproaching individual. This form of "implicit admonition" parallels verbal irony in its indirect nature of intending something different than what is said. Sima Qian's (司马迁) *Shiji huaji liezhuan* (《史记滑稽列传》) narrated episodes of this form of humor from the periods of the Spring-Autumn, Warring States, and Qin dynasties. Sima Qian pointed out that the most notable exemplars[9] of "implicit admonition" were witty, often finding the right time to speak the right words in the right way. They also spoke relevantly to solve conflicts and were highly influential (Liao, 2003).

---

[9] The three most notable exemplars mentioned in the *Shiji huaji liezhuan* are Chun Yukun (淳于髡), You Meng (优孟), and You Zhan (优旃). An example of "implicit admonition" or verbal irony employed by You Meng is the story of "You Meng Bereaves Horse" (优孟哭马, *Yōu Mèng kū mǎ*). The ruler at the time was a fanatical lover of horses. After his beloved horse died, the king required his officials to honor the horse in a high official burial. Through You Meng's exaggerated suggestion that the ruler should demonstrate his true love for the horse with a royal burial reserved only for the royal family, You Meng made the ruler realize the absurdity of his original notions of arranging a high official burial for the horse.

The existence of verbal irony as a rhetorical and literary device tracing back to ancient Chinese philosophy disproves the notion that irony is a phenomenon strictly limited to the Western hemisphere. However, this paper supports the idea that the various forms of irony can be salient in varying degrees across cultures and countries. From the study conducted, results support the notion that exposure to Western factors significantly influences a Chinese respondent's ability to both understand and appreciate situational ironies in cartoons. In addition, the data also suggests that preferences for the topic of irony (i.e. IS vs. IE cartoons) as well as the treatment of irony (positive or negative reactions) can also vary significantly across cultures. This is also the area where this paper makes a considerable contribution to the cross-cultural studies of irony. Although studies of general humor have explored the implications of particular joke topics and content on how "funny" different cultures find the jokes, nothing similar has been done in the realm of studies on irony. By distinguishing between topics of situational irony (IS vs. IE cartoons), this paper acknowledges and builds the foundation for this important implication for how different cultures appreciate and relate to irony.

Suggestions for future studies

Irony's merits as a means of protection have been debated by scholars. Muecke notes the protective effects of irony, "What an ironic observer typically feels in the presence of an ironic situation may be summed up in three words: superiority, freedom, amusement. Goethe says that irony raises a man 'above happiness or unhappiness, good or evil, death or life'" (quoted in Muecke, 1970, p. 37). Given the protective effects of irony, it can also be considered a coping mechanism. "Fear is the basic emotion conspicuous by its absence from situational irony....Finding an unusual situation to be ironic may count as a way of coping with it, in which case fear is inhibited" (Shelley, 2001, p. 808). The exploration of the social psychology behind irony is also a worthy area for future research. In this framework, cross-cultural analysis of irony may also produce insight into differences of coping preferences across cultures.

Analysis of irony across cultures is an area seldom explored by scholars, despite its tremendous significance in fields such as sociology, psychology, and literature. The uncovering of evidence in support of the idea that exposure to certain cultures contributes positively to another culture's comprehension and appreciation of irony also supports the

idea that certain types of cognition and humor can be contained within a civilization until its spread to other cultures. This evidence begs the question of whether humor and cognition differences across cultures can become slowly erased with the standardization of culture through globalization.

Extensive research regarding irony in China is also a suggestion for future studies. Most of the available Chinese literature regarding irony is modeled after Western theories and frameworks. The differences in treatment and preference of irony in China warrant another look at the definitions and understanding of irony in China from an exclusively Chinese viewpoint. Cross-regional differences between the East Asian countries would also make for an interesting future analysis.

In addition, albeit not entirely related to irony, there are future research opportunities in cross-cultural differences in facial expressions. As previously mentioned in the Research Design section of this paper, the Chinese language actually lacks an equivalent term for the concepts of "to cringe" and "to wince." Most English-Chinese dictionaries translate these words by noting the physical movement a person makes in cringing or wincing (such as giving it a Chinese definition closer to the ideas of shrinking, recoiling, or retreating). The facial expression (specifically the look on one's face when cringing or wincing) is entirely lost in the translation. Another potential area for study is whether the Chinese population is entirely lacking in this type of facial expression, and if so, why certain facial expressions are distinctively characteristics of certain cultures.

Finally, the Chinese term 命运的嘲弄 (*mìngyùn de cháonòng*), which relates closely to a cross between two other forms of irony known as irony of fate and tragic irony, is another area worthy of exploration. This term translates into "fate's mockery," which carries heavily with it Lucariello's notion of irony's connection with human fragility. Although 命运的嘲弄 (*mìngyùn de cháonòng*) is by no means a classification of a type of irony, it is certainly a commonly used term in Chinese to write off unfortunate events as simply beyond human control. A study of the evolution of this term and concept in Chinese culture may also yield significant insight into how situational ironies in China are explained or oftentimes dismissed resignedly as a result of fate.

APPENDIX 1

1.1 English survey cartoons
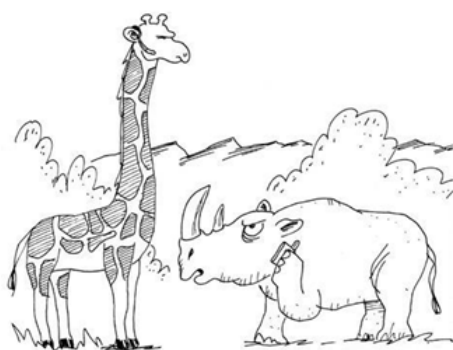
"How come you can always get a signal?"

Cartoon #1: Non-ironic

Cartoon #3: Ironic social

Cartoon #2: Ironic everyday
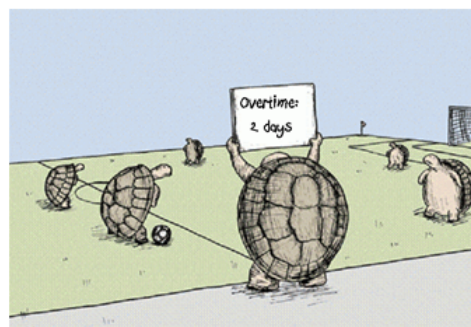
Cartoon #4: Non-ironic
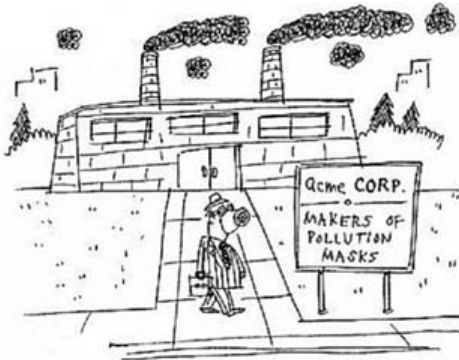
Cartoon #5: Ironic social
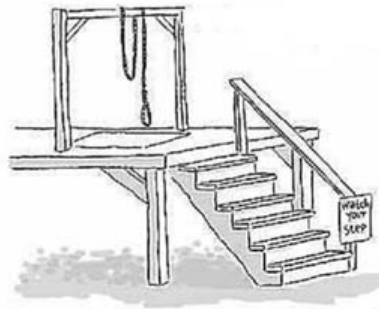
Cartoon #8: Ironic everyday

"Well, would you believe it? I won last night's lottery jackpot! "

Cartoon #6: Ironic everyday

Cartoon #9: Ironic social

Cartoon #7: Non-ironic

Cartoon #10: Non-ironic

Cartoon #11: Ironic everyday

Cartoon #14: Ironic everyday

Cartoon #12: Non-ironic

Cartoon #15: Ironic everyday

Cartoon #13: Non-ironic

1.2 Chinese survey cartoons
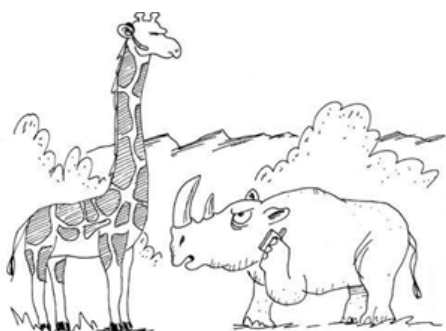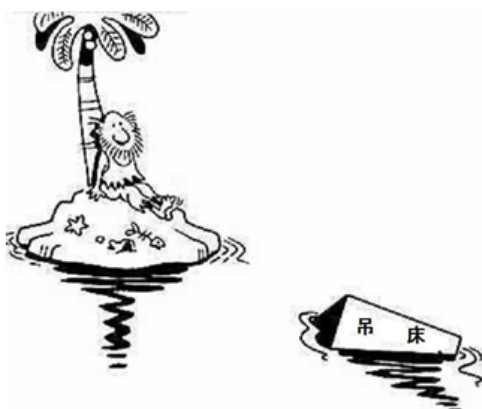
Cartoon #1: Non-ironic

Cartoon #3: Ironic social

Cartoon #2: Ironic everyday
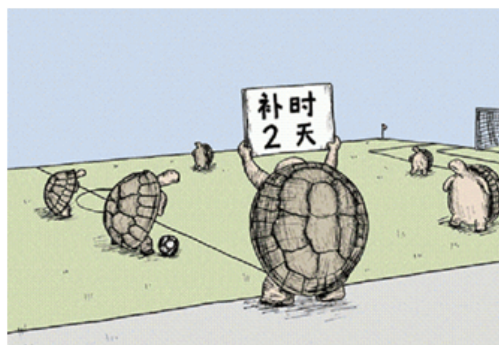
Cartoon #4: Non-ironic
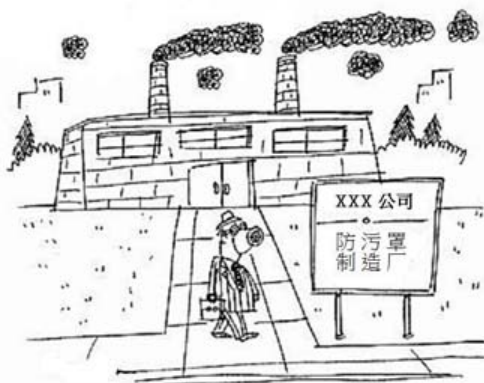
Cartoon #5: Ironic social
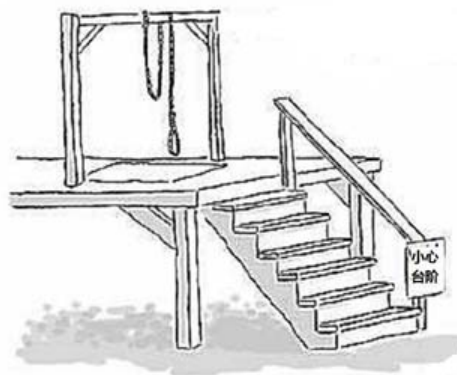
Cartoon #8: Ironic everyday

"真没想到，我居然中了昨天
的彩票！"

Cartoon #6: Ironic everyday

Cartoon #9: Ironic everyday

Cartoon #7: Non-ironic

Cartoon #10: Non-ironic

Cartoon #11: Ironic everyday

Cartoon #14: Ironic everyday

Cartoon #12: Non-ironic

Cartoon #15: Ironic everyday

Cartoon #13: Non-ironic

English survey
link: http://www.surveymonkey.com/s.aspx?sm=_2bSCeBhH56VMMMy12SBDPSA_3d
_3d

Chinese survey
link: http://www.surveymonkey.com/s.aspx?sm=e_2bQEoyCnj417MQB5jz7kMQ_3d_3
d

APPENDIX 2

2.1 Taxonomy of situational ironic event kinds (Lucariello, 1994)

| Type	Definition and example
Imbalances	Tags cases of inconsistency or opposition in human behavior or borne by situational elements.
Temporal	Intraindividual opposition over time (past vs. present). *Example:* The wimp who grows up to be a lion tamer.
Contextual	Intraindividual opposition across context, hence simultaneous. *Example:* The poor banker.
Role Reversal	Interpersonal opposition wherein traits, behaviors, and so forth of one person ought to be another's, and vice versa. *Example:* The laboring children can see the men at play.
Situational	Event-based opposition wherein constituent elements of an event reflect a state of affairs opposite to convention or reason. *Example:* A kiss that signifies betrayal.
Losses	Individual faces only a loss. The key feature of such losses is their cause, either self- or fate-inflicted.
Planned	Self-inflicted losses resulting from the backfiring of the individual's goal-driven, planned action. *Example:* A man died the day before a hurricane hit, when it was sunny and calm. He was electrocuted while removing the TV antenna from his roof, as a precaution against the storm.
Spontaneous	Self-inflicted losses resulting from the individual's natural, nonintentional behavior. *Example:* While driving students to a practice site, a driving teacher made a wrong turn down a one-way street. The car bore signs all over with the auto school's name.
Change of Mind	Self-inflicted losses resulting from a change of mind. *Example:* Jim long wanted new skis, but then decided he'd rather have a bike. That night, his wife presents him with skis.
Self-Betrayal	Self-inflicted losses occurring when a person unwittingly reveals his or her own weakness through own words or deeds. *Example:* The Pharisee prays "God, I thank Thee that I am not a sinner as other men are."
Fluke	Fate-inflicted losses resulting from so improbable a factor that it seems the loss must be "in the cards." *Example:* May's apartment has been robbed twice. So May invests in alarms, locks, bars. She is robbed soon after; the robbers blew a hole in the wall to get in.
Foreshadowed	Fate-inflicted losses wherein fate provides a "peek" at a loss to come. Hence it seems that the loss is "in the cards." *Example:* A man had dreams about dying for a week, and he expressed his concerns to his wife. The next week he was out doing his usual gardening, when a car ran over the curb, hitting and killing him.
Deserved	Self- and fate-inflicted losses. Nonnoble behavior invites an appropriate, punitive "zap" from fate. *Example:* Bob ridicules a coworker for clumsiness, then trips over the wastebasket.
Wins	Events wherein an individual ends up with a win outcome.
Instrumental	The means to losing become the means to winning. *Example:* A man is in a car accident with a woman, who as a consequence intends to sue him. They have a meeting and she decides not to sue. A year later they marry.
Fluke	Person wins inadvertently, that is, as the result of unintended, nonplanful, fluke actions. *Example:* A karate student pauses during a test trying to remember a move. The student gets the best score because it happens that a pause should occur at just that point.
Double Outcomes	The individual experiences two outcomes that are related, either loss–loss or win–loss.
Loss → Loss	
Recurrence	A highly unusual loss improbably recurs; these losses share no causal or conventional relation. *Example:* When Bud and Jill married in April, a rare, late blizzard occurred, dampening events. On their 25th anniversary party, another blizzard dampens festivities.
Win & Loss (simultaneous)	
Prize Not What It's Cracked Up To Be	A win firmly in hand is uncharacteristically wanting. *Example:* After playing for years, Ben finally wins the lottery. Incredibly, there are 100 other winners, thereby drastically reducing his take.
Wins Belittling Winner	Individual wins but effort or concern to that end is rendered needless, leaving winner feeling foolish. *Example:* Bill shops all over for the sweater his mom wants, but cannot find it. Tiredly, he pops into a store right across from his apartment, and finds the exact sweater.
Contrastive	A context of winning ways foregrounds a loss. *Example:* Susan is very gregarious and popular. Despite this, she has always basically felt so lonely.

2.1 continued

Type	Definition and example
Double Outcomes (*continued*)	
Win → Loss (sequential)	
Instrumental	The means to winning become the means to losing.
	Example: A marathon runner, famous for popularizing jogging, dies of a heart attack while jogging.
Think The Win Is "In Hand"	Individual has reason to believe a win is had, but it turns out not to be.
	Example: Rita gives a friend advice on love, saying the advice worked like a charm for her. The friend takes the advice. Later Rita's boyfriend calls and breaks up with her.
Loss → Win (sequential)	
Fruitless Win	Person seeking a win gets a loss instead. Then the win arrives but too late to count.
	Example: Paul's wife refuses his advice over and over for years until her decisions bring the family to financial and emotional ruin. Then she turns to Paul for counsel.
Win & Loss (interpersonal)	
Distribution	Win and loss outcomes distributed across persons, in a manner opposite to justice, convention, or reason.
	Example: John spends years trying to get a green card legally. His friend Peter lives in the United States underground as an illegal alien. Peter gets the card by an amnesty program. John is deported.
Dramatic	Events wherein an observer (audience, reader, overhearer, etc.) knows what a victim has yet to find out.
Doomed Agent	Person unaware or misinformed, relative to observer, where this state leads or can lead to loss.
	Example: Romeo killing himself over the "dead" Juliet.
Devious Agent	Person intentionally tries to keep others "in the dark," but turns out also to be "blinded," amounting to a loss.
	Example: A junior law partner seeks a new job secretly so not to appear disloyal to his firm. While looking, the senior partners tell him something they had known a while. The firm is closing, and he must get a job elsewhere.
Pathetic Agent	Person unaware, relative to observer, of loss outcome already happened.
	Example: Examiner has already failed the student, whom he overhears expressing a confident hope of passing.
Catch–22	Loss outcome as an unavoidable result of all available avenues of necessary and appropriate action.
	Example: The harder one tries to think of answers on a test, the more impossible it becomes to think of any.
Coincidence	Assorted events, such as cooccurrences or sequences of actions having no conventional or causal basis.
Anticipated	A current happening prefigures an improbable event occurring later.
	Example: Molly had thought about a friend from grammar school just days before she unexpectedly saw her for the first time in 9 years.
It's a Small World	Inadvertent discovery of unknown interpersonal links.
	Example: Mitch chats on the ski lift with a stranger, a pretty young woman. She is from a town where a nephew that Mitch has not seen in years lives. Mitch asks if she knows his nephew, and it turns out she just started dating him.
Other	

APPENDIX 3

3.1 Cross-cultural analysis statistical results

Test 1:

Y: Mean comprehension of all ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country
(1 = United States, 2 = China)

Summary of Fit

RSquared	0.277736
RSquared Adj	0.269465
Root Mean Square Error	1.446001
Mean of Response	7.456976
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7.6235804	0.090779	83.98	<.0001
Gender[1]	-0.024763	0.089146	-0.28	0.7814
Age dichotomized[1]	-0.228881	0.091651	-2.50	0.0131
Country[1]	0.9341004	0.093184	10.02	<.0001

Test 2:

Y: Mean appreciation of all ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country

(1 = United States, 2 = China)

Summary of Fit

RSquare	0.090887
RSquare Adj	0.080477
Root Mean Square Error	1.578042
Mean of Response	5.205096
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.0979559	0.099069	51.46	<.0001
Gender[1]	-0.124664	0.097287	-1.28	0.2012
Age dichotomized[1]	-0.037904	0.10002	-0.38	0.7050
Country[1]	-0.478863	0.101693	-4.71	<.0001

Test 3:

Y: Mean comprehension of all non-ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country
(1 = United States, 2 = China)

Summary of Fit

RSquare	0.138602
RSquare Adj	0.128738
Root Mean Square Error	1.557588
Mean of Response	7.694236
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7.7988835	0.097785	79.76	<.0001
Gender[1]	-0.111963	0.096026	-1.17	0.2447
Age dichotomized[1]	-0.165756	0.098723	-1.68	0.0943
Country[1]	0.6379917	0.100375	6.36	<.0001

Test 4:

Y: Mean appreciation of all non-ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country

(1 = United States, 2 = China)

Summary of Fit

RSquare	0.140581
RSquare Adj	0.13074
Root Mean Square Error	1.577409
Mean of Response	5.553258
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.4161724	0.099029	54.69	<.0001
Gender[1]	-0.160738	0.097248	-1.65	0.0996
Age dichotomized[1]	-0.037465	0.099979	-0.37	0.7082
Country[1]	-0.615532	0.101652	-6.06	<.0001

3.2 Frequency of +/- reactions statistical results

Test 1:

Y: Frequency of positive reactions to ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country (1 = United States, 2 = China)

Summary of Fit

RSquare	0.110786
RSquare Adj	0.100604
Root Mean Square Error	2.118245
Mean of Response	3.838346
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.981638	0.132979	29.94	<.0001
Country[1]	0.7669688	0.136283	5.63	<.0001
Gender[1]	0.091838	0.130545	0.70	0.4824
Age dich[1]	-0.283628	0.133942	-2.12	0.0352

Test 2:

Y: Frequency of negative reactions to ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country (1 = United States, 2 = China)

Summary of Fit

RSquare	0.033956
RSquare Adj	0.022894
Root Mean Square Error	2.035444
Mean of Response	2.635338
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5637733	0.127781	20.06	<.0001
Country[1]	-0.391136	0.130956	-2.99	0.0031
Gender[1]	0.0333953	0.125442	0.27	0.7903
Age dich[1]	0.0358075	0.128707	0.28	0.7811

Test 3:

Y: Frequency of positive reactions to non-ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country (1 = United States, 2 = China)

Summary of Fit

RSquare	0.037559
RSquare Adj	0.026539
Root Mean Square Error	1.387207
Mean of Response	3.860902
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.8223158	0.087086	43.89	<.0001
Country[1]	-0.169076	0.08925	-1.89	0.0593
Gender[1]	0.042112	0.085492	0.49	0.6227
Age dich[1]	-0.177339	0.087717	-2.02	0.0442

Test 4:

Y: Frequency of negative reactions to non-ironic cartoons

X: Gender (1= male, 2= female), age (dichotomized as <24 years and ≥24 years), country
(1 = United States, 2 = China)

Summary of Fit

RSquare	0.011832
RSquare Adj	0.000517
Root Mean Square Error	1.023312
Mean of Response	0.928571
Observations (or Sum Wgts)	266

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.9293839	0.064241	14.47	<.0001
Country[1]	0.0461125	0.065838	0.70	0.4843
Gender[1]	-0.028183	0.063065	-0.45	0.6553
Age dich[1]	-0.107525	0.064707	-1.66	0.0978

3.3 Implications of cartoon topic (IE vs. IS cartoons) statistical results

Test 1:

Compares averages of the Chinese population's mean in comprehending the IS cartoons
(IS C) and IE cartoons (IE C)

t-Test: Two-Sample Assuming Unequal Variances

	IE C	*IS C*
Mean	6.505241	7.712788
Variance	3.595788	3.135693
Observations	159	159
Hypothesized Mean Difference	0	
df	315	
t Stat	-5.86877	
P(T<=t) one-tail	5.56E-09	
t Critical one-tail	1.649705	
P(T<=t) two-tail	1.11E-08	
t Critical two-tail	1.967523	

Test 2:

Compares averages of the U.S. population's mean in comprehending the IS cartoons (IS C) and IE cartoons (IE C)

t-Test: Two-Sample Assuming Unequal Variances

	IE C	*IS C*
Mean	8.302181	8.915888
Variance	1.878999	1.350301
Observations	107	107
Hypothesized Mean Difference	0	
df	206	
t Stat	-3.53264	
P(T<=t) one-tail	0.000254	
t Critical one-tail	1.652284	
P(T<=t) two-tail	0.000508	
t Critical two-tail	1.971547	

Test 3:

Compares averages of the Chinese population's mean in appreciating the IS cartoons (IS A) and IE cartoons (IE A)

t-Test: Two-Sample Assuming Unequal Variances

	IE A	IS A
Mean	5.356394	5.990566
Variance	2.782868	4.967386
Observations	159	159
Hypothesized Mean Difference	0	
df	293	
t Stat	-2.87242	
P(T<=t) one-tail	0.002185	
t Critical one-tail	1.650071	
P(T<=t) two-tail	0.004371	
t Critical two-tail	1.968093	

Test 4:

Compares averages of the U.S. population's mean in appreciating the IS cartoons (IS A)
and IE cartoons (IE A)

t-Test: Two-Sample Assuming Unequal Variances

	IE A	IS A
Mean	4.626168	4.616822
Variance	2.262495	3.557241
Observations	107	107
Hypothesized Mean Difference	0	
df	202	
t Stat	0.040073	
P(T<=t) one-tail	0.484037	
t Critical one-tail	1.652432	
P(T<=t) two-tail	0.968074	
t Critical two-tail	1.971777	

3.4 Exposure to Western culture statistical results

Test 1:

Y: Mean comprehension of all ironic cartoons

X: Exposure to Western culture, understanding of Western culture, and exposure of Western entertainment

Summary of Fit

RSquare	0.121378
RSquare Adj	0.104372
Root Mean Square Error	1.542467
Mean of Response	6.750524
Observations (or Sum Wgts)	159

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.2048098	0.407893	12.76	<.0001
Western exposure	-0.011844	0.116584	-0.10	0.9192
Western culture	-0.070094	0.119608	-0.59	0.5587
Western entertain	0.3115669	0.07857	3.97	0.0001

Test 2:

Y: Mean appreciation of all ironic cartoons

X: Exposure to Western culture, understanding of Western culture, and exposure of Western entertainment

Summary of Fit

RSquare	0.054474
RSquare Adj	0.036174
Root Mean Square Error	1.59681
Mean of Response	5.596785
Observations (or Sum Wgts)	159

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.8542729	0.422264	11.50	<.0001
Western exposure	-0.222211	0.120691	-1.84	0.0675
Western culture	0.1136047	0.123822	0.92	0.3603
Western entertain	0.2170872	0.081338	2.67	0.0084

Test 3:

Y: Mean comprehension of all non-ironic cartoons

X: Exposure to Western culture, understanding of Western culture, and exposure of Western entertainment

Summary of Fit

RSquare	0.120943
RSquare Adj	0.103929
Root Mean Square Error	1.694009
Mean of Response	7.212788
Observations (or Sum Wgts)	159

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.3004617	0.447968	11.83	<.0001
Western exposure	0.0769784	0.128038	0.60	0.5486
Western culture	-0.023191	0.131359	-0.18	0.8601
Western entertain	0.2584977	0.086289	3.00	0.0032

Test 4:

Y: Mean appreciation of all non-ironic cartoons

X: Exposure to Western culture, understanding of Western culture, and exposure of Western entertainment

Summary of Fit

RSquare	0.049671
RSquare Adj	0.031278
Root Mean Square Error	1.598166
Mean of Response	6.054507
Observations (or Sum Wgts)	159

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.9933406	0.422623	11.82	<.0001
Western exposure	-0.062358	0.120794	-0.52	0.6064
Western culture	0.1868696	0.123927	1.51	0.1336
Western entertain	0.0758378	0.081407	0.93	0.3530

APPENDIX 4

"Ironic" by Alanis Morissette

An old man turned ninety-eight
He won the lottery and died the next day
It's a black fly in your Chardonnay
It's a death row pardon two minutes too late
Isn't it ironic ... don't you think

It's like rain on your wedding day
It's a free ride when you've already paid
It's the good advice that you just didn't take
Who would've thought ... it figures

Mr. Play It Safe was afraid to fly
He packed his suitcase and kissed his kids good-bye
He waited his whole damn life to take that flight
And as the plane crashed down he thought
'Well isn't this nice...'
And isn't it ironic ... don't you think

Well life has a funny way of sneaking up on you
When you think everything's okay and everything's going right
And life has a funny way of helping you out when
You think everything's gone wrong and everything blows up
In your face

It's a traffic jam when you're already late
It's a no-smoking sign on your cigarette break
It's like ten thousand spoons when all you need is a knife
It's meeting the man of my dreams
And then meeting his beautiful wife
And isn't it ironic... don't you think
A little too ironic... and yeah I really do think...

Life has a funny way of sneaking up on you
Life has a funny, funny way of helping you out
Helping you out

REFERENCES

Ashcraft, M. 1989. *Human memory and cognition.* Glenview: Scott Foresman.

Creusere, M. 2000. "A developmental test of theoretical perspectives on the understanding of verbal irony: Children's recognition of allusion and pragmatic insincerity," *Metaphor and Symbol* (15), 29–45.

Gibbs, R. 2002. "A new look at the literal meaning in understanding what is said and implicated." *Journal of Pragmatics* (34), 457–486.

Gibbs, R., & H. Colston. 2007. "The future of irony studies." In R. Gibbs, & H. Colston, *Irony in Language and Thought: A Cognitive Science Reader*. New York: Lawrence Erlbaum Associates, 581–592.

Harbsmeier, C. 1989. "Humor in ancient Chinese philosophy." *Philosophy East and West* (39), 289–310.

Hay, J. 2001. "The pragmatics of humor support." *Humor: International Journal of Humor Research* (14), 55–82.

Kierkegaard, S. 1966. *The Concept of Irony, with Constant Reference to Socrates.* Bloomington: Indiana University Press.

Kreuz, R., & R. Roberts. 1993. "On satire and parody: The importance of being ironic," *Metaphor and Symbolic Activity* (8), 97–109.

Lee, C., & A. Katz. 1998. "The differential role of ridicule in sarcasm and irony," *Metaphor and Symbol* (13), 1–15.

Liao, C. 2003. "Humor vs. huaji," *Journal of Language and Linguistics* (2), 25–46.

Littman, D., & J. Mey. 1991. "The nature of irony: Toward a computational model of irony," *Journal of Pragmatics* (15), 131–151.

Lucariello, J. 1994. "Situational irony: A concept of events gone awry," *Journal of Experimental Psychology* (123), 129–145.

Modern Chinese Dictionary 现代汉语词典. 1998. Beijing: Commercial Publications 商务印书馆.

Muecke, D. 1970. *Irony.* (J. D. Jump, Ed.) Norfolk, Fakenham: Methuen & Co Ltd.

Muecke, D. 1982. *Irony and the ironic. The critical idiom.* London: Methuen.

Muecke, D. 1969. *The Compass of Irony.* London: Methuen & Co Ltd.

Nisbett, R., & L. Ross. 1980. *Human inference: Strategies and shortcomings of social judgment. Century psychology series.* Englewood Cliffs: Prentice Hall.

Shelley, C. 2001. "The bicoherence theory of situational irony," *Cognitive Science* (25), 775–818.

Tang, Qi 唐麒. 2004. *Zhongguo youmo xiaohua ji 中国幽默笑话集 (Collection of Chinese Humor).* Changchun 长春: Shidai wenyi chubanshe 时代文艺出版社 (The Time Literature and Art Press).

Thirlwall, C. 1833. "On the irony of Sophocles," *The Philological Museum , II*, 489–490.

Wang, Xin 王欣. 2001. "Qianxi xianqin yinyu de fengjian gongneng" "浅析先秦隐语的讽谏功" ("An analysis of the allegorical and admonitory function of implicit

language during the pre-Qin period"), *Zhejiang Shida Xuebao* 浙江师大学报 *(Journal of Zhejiang Normal University)* (1)*,* 61–63.

Zhou, Zuliang 周祖亮. 2005. "'Fanfeng' de liuxing yu wuyong" '反讽'的流行与误用. ("Irony": Popularity and common misues), *Yuwen jianshe 语文建设 (Language Construction)* (5), 54–55.

Since June 2006, all new issues of *Sino-Platonic Papers* have been published electronically on the Web and are accessible to readers at no charge. Back issues are also being released periodically in e-editions, also free. For a complete catalog of *Sino-Platonic Papers*, with links to free issues, visit the *SPP* Web site.

www.sino-platonic.org