

Determinants of demand for cultural experience goods: An application to the market for books

Paul Crosby
Department of Economics
Macquarie University

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Summary

This thesis aims to contribute towards the economic literature on the consumer choice of cultural goods. A theoretical model of demand that distinguishes ‘cultural experience goods’ from other ‘experience goods’ is developed. Treating the cultural nature of a good as distinct from other factors known to influence consumer choice (such as a good’s experiential nature, the role of taste development and the impact of technological change) permits the examination of how its presence not only influences demand in general but also how this influence varies across different consumer groups.

This thesis makes two distinct empirical contributions, both of which relate to the chosen category of cultural experience goods, books. Firstly, in order to provide empirical support to the widely accepted theoretical proposition that cultural goods have the potential to embody both a cultural and economic value, a unique survey of readers is conducted. Assessments of a variety of cultural value components along with measurements of willingness to pay for books written by a selection of renowned authors were collected from survey respondents. Econometric analysis of these valuations revealed that readers are able to put a price on a book’s ability to stir the imagination. However, a number of other cultural value dimensions that were highly valued by readers remained resistant to monetary evaluation.

The second empirical contribution of this thesis relates to the development of a stated preference discrete choice experiment in order to test the predictions of the theoretical model of demand. A total of 242 Australian readers each completed 12 choice tasks resulting in the collection of 2904 choice observations. Respondents were also asked a series of additional questions regarding their socio-demographic characteristics and book reading habits. Binary logit, multinomial logit and latent class models were estimated from the survey data. Results for the hypotheses relating to the cultural nature of a good provide evidence to suggest consumers are willing to pay a ‘premium’ for goods of a cultural nature. However, this willingness to pay varies considerably across different consumer groups. A variety of other hypotheses relating to a good’s experiential nature, the role of taste development in cultural good consumption and the impact of new consumption formats are also examined in detail.

The conclusion of this thesis emphasises the importance of accounting for the cultural nature of a good in models of demand and suggests how the results

can be used by cultural practitioners and industry stakeholders alike to gain a better understanding of how consumers make their cultural experience good purchasing decisions. Ideas for further research are also provided.

Candidate statement

The work presented in this thesis has not been submitted for a higher degree to any other university or institution. The sources of information used and the extent to which the work of others has been utilised are acknowledged in the thesis. Ethics Committee approval has been obtained (reference numbers: 5201400498 & 5201600030).

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1 Introduction

1.1 Motivation of the thesis

Cultural goods have the potential to embody certain intangible consumption benefits that distinguish them from other market goods. UNESCO (2009, p.378) notes that cultural goods “convey ideas, symbols, and ways of life. They inform or entertain, contribute to build collective identity and influence cultural practices.” On the basis of such traits, Throsby (1999, p.8) suggests that while cultural goods may have an economic value, as determined by their price in exchange, this economic value “is likely to be augmented, perhaps significantly so, because of its cultural value.” With the distinction between economic and cultural value in mind, Crossick and Kaszynska (2014, p.125) argue that while many of the outcomes of cultural good consumption (economic impact, health improvements, educational benefits and the like) can be achieved through other activities, there is nonetheless “something specific to the experience of arts and culture that makes a difference in ways particular to them, and too little attention has been given to understanding and evidencing these.” It is this apparent lack of attention which provides the motivation for the work contained within this thesis.

Unfortunately, the neoclassical theories of demand that dominate the discourse in economics provide little scope for those wishing to gain a better understanding of the determinants of demand for cultural goods. As well as embodying a cultural nature, such goods are also, at their core, hedonic experience goods for which quality and enjoyment can only be fully assessed *after* consumption. The effect of both the cultural and experiential nature of such goods are at odds with the textbook treatment of consumer choice. Driven by Samuelson’s (1938 and subsequently 1948) theory of revealed preferences, this treatment is reliant upon on a set of strict axioms regarding preference formation. Notably, revealed preference theory assumes that consumers have

rational and unchanging preferences that are complete, non-satiated, asymmetrical, strictly convex, and transitive. Binmore (2008, p.20) notes that the presence of such axioms means economists must “give up any pretension to be offering a causal explanation of [...] choice behavior in favor of an account that is merely a description of the choice behavior of someone who chooses consistently.”

Despite such critiques, common methods of cultural good valuation (such as economic impact studies and contingent valuations) remain rooted in the neoclassical orthodoxy. While both such methods have undoubtedly advanced our understanding of how consumers value a wide variety of cultural goods, industries and events, it is argued that they struggle to provide all the necessary tools with which to incorporate the characteristics that make cultural goods so unique (see, for example, Seaman, 1987). As Blaug (2001, p.126) succinctly states, those wishing to obtain some genuine theories of preference formation in regard to cultural goods may well be forced to “scrap the entire neoclassical framework.”

This desire to develop more nuanced tools with which to examine consumer choice provided the inspiration for the incorporation of psychological aspects of consumer behaviour into models of choice. This resulted in the arrival of what is commonly referred to today as ‘discrete choice analysis.’ Discrete choice models are built upon ‘random utility theory’ which splits the utility that an individual gains from consuming a good into two components, a systematic (observable) component and a random (unobservable) component. The presence of this random component can be seen as an implicit acknowledgement that individuals struggle to make consistent consumption choices, a characteristic of consumers that neoclassical theories struggle to take into account.

The incorporation of random utility theory into models of discrete choice permits the identification of the value of the individual attributes of a good. This renders such analysis particularly amenable to accounting for situations where trade-offs between similar, multi-dimensional goods and services are

of interest. Discrete choice analysis is therefore able to measure the value of marginal changes in a given good, as opposed to being restricted to the evaluation of situational changes (that is to say, a simple increase or decrease in the provision of the good in question) that is the hallmark of neoclassical valuation methods.

This ability to incorporate the individual attributes of a good into a model of consumer choice should be of particular interest to the cultural economist keen to examine what effect the cultural and experiential nature of a good has upon a consumer's decision making process. To date, however, there have been only limited applications of discrete choice analysis to the cultural industries. Snowball (2008) provides an excellent review of cultural economists' early forays into the world of choice experiments, noting that these early applications were primarily concerned with the evaluation of heritage sites, museums and cultural events. Such applications all serve to advance our understanding of the determinants of demand for cultural goods. It will be argued, however, that while many existing studies attempt to examine what influence the *experiential nature* of the good has on consumer choice (through the inclusion of attributes such as word of mouth, critical consensus and the like), examinations addressing what influence the *cultural nature* of the good in question has on consumer choice are rare. Given the discussions above regarding the intangible consumption benefits that distinguish cultural goods from other market goods, it is posited that in order to offer a complete picture of the determinants of demand for cultural goods, we must work towards developing a model that incorporates *all* of the unique characteristics that are the hallmark of such goods.

The theoretical portion of this thesis will therefore be centred on the development of a general model of demand for cultural experience goods. This analytically tractable model will be built on a discrete choice framework, thus permitting the incorporation of attributes pertaining to both the cultural *and* experiential nature of a good. Furthermore, the flexibility of the discrete choice

framework also allows for the incorporation of other factors known to influence the demand for cultural goods (such as taste development and technological change) into a single model. All told, the general model will hopefully move away from the relatively ad hoc nature of existing studies and provide a richer, more nuanced understanding of the determinants of demand for goods that exhibit both cultural and experiential characteristics.

The hypotheses put forward during the development of the general model will be tested with an empirical application relating to our chosen category of cultural experience goods, books. While the general model may be applied to a vast array of cultural industries, it is suggested that books make a particularly worthwhile candidate for this inaugural application. The digitisation of books has given rise to a suite of new content delivery formats, such as the ebook and audiobook. The rapid industry change brought about by this digital transition has led to a great deal of uncertainty regarding book readers' preference formation and their determinants of demand. As noted by Canoy et al. (2006), such uncertainty is not helped by the paucity of empirical research into the industry. With this in mind, our application of the general model of demand for cultural experience goods to the market for books comes at an opportune time. As well as providing cultural economists with new information regarding how the cultural *and* experiential nature of a good influences consumer choice (along with a variety of other traits, as mentioned earlier) it is hoped that this research will provide industry stakeholders with valuable insights as to what the future has in store for the humble book.

The second empirical component of this thesis relates to Throsby's (1999) proposition that certain goods have the potential to embody both a cultural and economic value. On a theoretical level this has become a generally well accepted proposition. However, empirical evidence to support the existence of cultural value, and to investigate the relationship between the two 'strands' of value is rare. Indeed, Throsby and Zednik (2014) provide the only empirical attempt to date that tests whether the economic value of a cultural good

can fully encapsulate its cultural value. In this examination, the authors find support for the notion that certain paintings imbue a cultural value that lies outside the scope of economic value.

Despite the rarity of such empirical investigations into the existence of cultural value, their importance cannot be overstated. Taking, for example, our interest in examining consumer choice for books: if we are unable to find evidence that books have a cultural value that is distinct from economic value, our need for a choice analysis that lies outside of the neoclassical framework is greatly diminished. Our application of the general model of demand is therefore preceded by a search for empirical evidence that suggests that books have the potential to embody certain elements of cultural value that remain resistant to monetary evaluation.

1.2 Aims and objectives

This thesis aims to contribute towards the economic literature on the consumer choice of cultural goods in a variety of ways. The distinction between cultural goods and other market goods is well established, as is the notion that such goods have the potential to embody a cultural value that exists independently of its economic value. However, while numerous studies of demand for cultural goods note the unique characteristics of such goods, the difficulties associated with quantifying the cultural nature of a good often result in its exclusion from economic analysis. Therefore, from a theoretical standpoint, this thesis aims to build on the existing literature by developing a general model of demand that distinguishes ‘cultural experience goods’ from other ‘experience goods.’ By treating the cultural nature of a good as distinct from other factors known to influence consumer choice (such as its experiential nature, the role of taste development and the impact of technological change) we will be able to ascertain just how its presence not only influences demand in general, but also how this influence varies across different categories of cultural experience

goods and different consumer groups.

In order to test the predictions of the general model and further our understanding of the determinants of demand for cultural experience goods, this thesis aims to make two distinct methodological and empirical contributions, both of which will relate to our chosen category of cultural experience goods, books. Firstly, in order to provide empirical support to the theoretical proposition regarding the existence of cultural value (as distinct from economic value), a unique survey of readers is conducted. We follow Rizzo and Throsby (2006), who posit that cultural value can be broken down into a number of component parts (such as aesthetic value, social value, symbolic value and the like). Assessments of a variety of these cultural value components, along with measurements of willingness to pay for books written by a selection of renowned authors are collected from survey respondents. With the use of econometric modelling, the cultural and economic value assessments can be compared, thus permitting an examination regarding whether or not books can be seen to embody a cultural value. Furthermore, we will also be able to examine the specific components of a book's cultural value that remain resistant to monetary evaluation.

The second empirical contribution of this thesis relates to the development of a stated preference discrete choice experiment in order to test the hypotheses developed within our theoretical model. The discrete choice framework permits the estimation of a variety of econometric models. Of particular relevance to this thesis will be the estimation of a latent class model that allows for the identification of distinct 'classes' of consumer based on a variety of socio-demographic characteristics and book reading habits. The estimation of a latent class model, in conjunction with the novel inclusion of attributes that pertain to the cultural nature of a book, will allow for inferences to be made regarding how different groups of readers value the cultural nature of a book.

Another unique aspect of the discrete choice model relates to the use of book formats as the alternatives in the choice experiment (as opposed to individual

book titles). This permits the examination of how readers respond to the introduction of new book formats, rather than how they respond to changes in the book titles on offer to them. It is hoped that such an investigation will shed new light on how cultural experience goods respond to technological disruption, a topic that is rarely considered in the literature. The chosen empirical specification also makes it possible to investigate whether the adoption of new technologies in the cultural industries is driven solely by the socio-demographic characteristics of consumers, or if other attributes (such as the genre or cultural nature of the good in question) play an influential role in consumer choice.

As alluded to earlier, models of discrete choice have been used before to examine a variety of cultural industries (with the notable exception of books). Their application, however, remains relatively scarce, while the use of latent class models to distinguish between different classes of consumer is even rarer. Another aim of this thesis is, therefore, to advance the application of discrete choice experiments on cultural goods. Furthermore, the choice experiment developed in this thesis will utilise a Bayesian efficient experimental design to create the choice sets presented to respondents. This complex experimental design is said to yield a variety of benefits, such as increased statistical efficiency and protection against misspecification. To the best of our knowledge, this thesis is the first such application of this advanced experimental design to a cultural industry.

Finally, this thesis aims to provide useful insights to policy-makers and stakeholders from a variety of cultural industries. In particular, it is hoped that gaining a better understanding of how consumers distinguish between cultural and economic value and how the cultural nature of a good influences a consumer's demand decisions will assist cultural practitioners and researchers alike, and guide further research on the topic.

1.3 Structure of the thesis

In order to frame our analysis regarding the determinants of demand for cultural experience goods appropriately, Chapter 2 will track the evolution of consumer choice theory throughout economic thought. The road from classical political economic theory, with its focus on rational choice, to the marginalists' emphasis on utility will be charted. It will be shown that such developments led to the rise of neoclassical economics and 'revealed preference theory.' Subsequent criticism of the mathematical rigour associated with revealed preference theory prompted the development of discrete choice analysis. A discussion regarding the benefits that discrete choice analysis holds over neoclassical models of consumer choice therefore provides the impetus for the application of discrete choice models to cultural goods. Such applications become a key theme of the remainder of this thesis.

Before delving into the development of our theoretical model and subsequent empirical applications, Chapter 3 investigates the current state of play regarding the economic analysis of cultural goods. After highlighting the unique characteristics of cultural goods, a thorough review of the literature regarding existing valuation methods is provided. This review of the existing literature prompts the development of the general model of demand for cultural experience goods presented in Chapter 4. As discussed, in order to gain a richer, more nuanced understanding regarding the determinants of demand for such goods, this theoretical model distinguishes between the cultural and experiential nature of a good. By utilising a discrete choice framework we develop a series of hypotheses relating to five key determinants of demand. Specifically, we examine:

- Taste development: how do levels of accumulated taste and familiarity influence the probability of purchasing a cultural experience good?
- The cultural nature of the good: how does the cultural nature of a good

influence consumers' willingness to pay? Furthermore, how does this willingness to pay vary across different consumer groups?

- The experiential nature of the good: how does reducing the levels of imperfect information that a consumer is faced with when purchasing a cultural good influence the purchase probability?
- Genre and patterns of consumption: how do different groups of consumers favour particular sub-categories of cultural experience goods? Furthermore, does a given cultural experience good category contain consumers that exhibit univorous and omnivorous consumption patterns?
- Technological change: how does the diffusion of new technologies into cultural industries influence consumption habits? Furthermore, how are patterns of diffusion influenced by particular attributes of a given cultural experience good?

With the development of the general model of demand complete, we move on to our empirical analysis. Chapter 5 formally introduces books as the chosen category of cultural experience good on which we will be testing the hypotheses developed in the general model of demand. After providing the motivation for this choice of cultural experience good category, the remainder of the chapter is devoted to providing empirical evidence to support the notion that books carry with them a cultural value that is distinct from its economic value. A survey of readers is conducted in order to ascertain their assessments of cultural value (broken down into a series of clearly defined component parts) and economic value (in terms of willingness to pay) for books by a selection of renowned authors. An ordinary least squares regression reveals that there is evidence to suggest that while there exists some relationship between a reader's cultural and economic valuations, this relationship is far from perfect.

This empirical evidence that suggests books have the potential to embody a cultural value serves to justify the use of a choice model that incorporates a

good’s cultural nature, such as the strategy put forward in Chapter 4. With this in mind, Chapter 6 is devoted to the development of the discrete choice experiment that will enable testing of the hypotheses contained within the theoretical model. A stated preference experiment is chosen and the alternatives and attributes are then clearly defined. The Bayesian efficient experimental design used to generate the choice sets that will be displayed to each survey respondent is then discussed. We then move on to document the administration of the survey, along with presenting the socio-demographic characteristics of the respondents. Finally, our measures of taste development for books, in terms of levels of familiarity and accumulated taste, are formally defined and calculated.

Chapter 7 presents the results of our stated preference discrete choice experiment and tests the hypotheses developed in Chapter 4. The role that taste development plays on average choice probability is tested with the use of a binary logit model. A total of five such models are estimated. It is revealed that, while increases in measures of long-term familiarity and accumulated taste are found to have a positive effect on the likelihood of purchasing a book, increases in measures of recent familiarity are not.

A multinomial logit model and a latent class model with membership functions relating to a variety of socio-demographic and reading characteristics are then estimated in order to facilitate the testing of the remainder of the hypotheses. Three distinct ‘classes’ of reader that emerge from the results of the latent class model, namely the ‘popular reader’, the ‘cultural connoisseur’ and the ‘technological adopter.’ The results of the multinomial logit model offer support for the notion that consumers are willing to pay a ‘premium’ for books of a cultural nature. However, the results of the latent class model reveal that this willingness to pay varies considerably across each class of reader. Similar results are found when examining how the experiential nature of books influences demand. We find support for the proposition that the average choice probability of purchasing a book increases with increasing levels of quality.

The extent of this effect is once again highly dependent upon which class the reader belongs to. The testing of hypotheses relating to genre and patterns of cultural good consumption suggest the presence of distinct groups of consumers who display both univorous and omnivorous reading habits. However, little evidence is found to suggest the existence of ‘sophisticated’ or ‘snob’ consumers who only read more cognitively demanding genres.

Chapter 8 concludes with a look at how the modelling approach and results presented in this thesis can be used by industry stakeholders and cultural policy makers alike in order to gain a better understanding of how consumers reach their cultural good purchasing decisions. We also introduce ideas for further research.

2 Consumer choice in economic thought

Before embarking on our journey to investigate the determinants of demand for cultural experience goods, it is prudent to first track the evolution of consumer choice theory throughout economic thought. An examination of the strengths and limitations of existing theories of the consumer provides the foundation upon which the theoretical model and empirical applications contained within this thesis are developed. We therefore begin with the original school of mainstream economic thought, classical political economy.

2.1 The consumer in classical political economy

The classical political economic theory pioneered by Adam Smith's (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations* in the late eighteenth century, and subsequently Ricardo's (1817) *Principles of Political Economy and Taxation*, saw the notion of consumption brought to the forefront of the economic picture. Smith (1776, p.245) viewed consumption as "the sole end and purpose of all production." This was in stark contrast to the commonly held belief of the time that production was merely a tool for the accumulation of private wealth. Production as a means for consumption was simply not considered. Sassatelli (2010) notes that even though consumption lay at the heart of Smith's vision, Smith did not develop a comprehensive economic treatment of the topic. Instead, the focus was on a nation's well-being as determined by growth of the economy as a whole, with the 'wealth' in *Wealth of Nations* referring to the flow of annual national product.

In the *Wealth of Nations*, Smith envisaged a rational, self-interested consumer who embarks on a lifelong quest to maximise his or her happiness, subject to a set of exogenously imposed preferences and budgetary constraints. If such rational and self-interested consumers are allowed to operate in structured market economies, then natural tendencies to accumulate and exchange (Smith's

famed ‘invisible hand’), coupled with the division of labour and technological progress, would drive up consumption per capita and lead to “universal opulence which extends itself to the lowest ranks of the people” (Smith, 1776, p.115). Although humanist by nature, classical political economic theory said little regarding the formation of individual preferences,¹ or the origin of the underlying tastes, desires and wants that stimulated the ever increasing levels of consumption.²

While *The Wealth of Nations* became the foundation upon which modern economics was built,³ Smith’s painting of consumers as rational and self-interested stands in stark contrast to his previous work on human behaviour. Smith’s *The Theory of Moral Sentiments*, published 17 years earlier than *The Wealth of Nations* in 1759, depicted human beings as a species in constant conflict between the ‘passions’ – the emotions and drives that define us, and the ‘impartial spectator’ – the voice of reason that lives inside us. To this end, Smith wrote:

There are some situations which bear so hard upon human nature,

¹In his discussion of the relationship between the natural and market price of a commodity Smith did, however, via his treatment of effectual versus absolute demand, acknowledge that preferences (expressed in terms of desires) may go unsated. To this end Smith wrote:

The market price of every particular commodity is regulated by the proportion between the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity. [...] Such people may be called the effectual demanders, and their demand the effectual demand; since it may be sufficient to effectuate the bringing of the commodity to market. It is different from the absolute demand. A very poor man may be said in some sense to have a demand for a coach and six; he might like to have it; but his demand is not an effectual demand, as the commodity can never be brought to market in order to satisfy it. (1776, p.158)

²Notions of taste were incorporated into Smith’s writing at a societal level, rather than individual level. Rosenberg (1968, p.372), for example, argues that “[Smith’s] treatment of the conduct of people in savage societies, which are preoccupied with procuring a bare subsistence, suggests that they are controlled by social values and attitudes which provide as little scope as possible for the expression of personal tastes.”

³Economic historian Eamonn Butler (2011, p.4) suggests that *The Wealth of Nations* “did for economics what Newton did for physics and Darwin did for biology.”

that the greatest degree of self-government, which can belong to so imperfect a creature as man, is not able to stifle, altogether, the voice of human weakness, or reduce the violence of the passions to that pitch of moderation, in which the impartial spectator can entirely enter into them. (1759, p.32)

With this view of human behaviour, *The Theory of Moral Sentiments* provides a far richer doctrine of consumption and preference formation than *The Wealth of Nations* ever did. To this end, Ashraf et al. propose that:

The Theory of Moral Sentiments is packed with insights about preferences, using the dual-process framework of the passions and the impartial spectator. Some of the discussion relates to aspects of individual preference and judgement: what we would today call loss aversion, intertemporal choice and overconfidence. Other parts of the discussion focus on preferences that arise in social contexts: altruism, fairness and how they together generate trust in markets. (2005, p.132)

The picture of human behaviour painted in *The Theory of Moral Sentiments* allows for impulsive, irrational decisions, influenced by sympathy and more than the simple need to consume.⁴ This multidimensional view of human nature arguably represents the consumer behaviour we witness in the world around us more accurately than the emotionally restrictive rational economic agents Smith presented in his work almost two decades later. Yet the philosophies portrayed in *The Theory of Moral Sentiments* failed to permeate mainstream economic thought, and the rational, self-interested economic agent made (in)famous in *The Wealth of Nations* became the dominant representation of consumer behaviour. Sen (2015) describes the failure to take into account the aspects of Smithian human behaviour documented in *The Theory of Moral Sentiments*

⁴Ashraf et al. (2005) go as far as to portray Smith as the pioneer of behavioural economics.

as a “mischaracterisation of Smith’s analysis of reasons for action” which has “been a rampant feature of a large part of twentieth-century economics” (Sen, 2015, p.166). Sen takes particular exception to the emergence, purportedly in the name of Smith, of ‘rational choice theory’, a dominant economic paradigm that spread into neighbouring fields of study.⁵ The concept of rational choice would prove to be a pervasive feature of consumer theory for many years to come, even after Classical Political Economic Theory fell out of fashion, as will now be discussed.

2.2 The rise of revealed preference theory

The 1870s bore witness to the emergence of neoclassical economics and the marginal revolution led by William Jevons, Carl Menger and Léon Walras. This period saw the macroeconomic growth issues that formed the backbone of Classical Political Economic Theory take a back seat to microeconomic matters. The marginal revolution was driven by the introduction of the ‘utility theory of value’ into the economic lexicon. Stigler (1950) notes that the concept of utility, as it is currently understood in economics, was first introduced by Jeremy Bentham in his *Introduction to the Principles of Morals and Legislation* (1781). However, theories of utility didn’t gain widespread acceptance in the discipline until the arrival of Jevons, Menger and Walras. Bentham developed a hedonistic and utilitarian view of human behaviour that Jevons and Walras shared.⁶ Economics was transformed into the “calculus of pleasure and pain” (Jevons, 1871, p.23), where the value of an object was determined solely by the amount of enjoyment - in terms of utility - that the consumer derives from its consumption.

⁵See, for example, Becker (1976), Radnitzky and Bernholz (1987), Swedberg (1990) and Green and Shapiro (1994).

⁶Menger, on the other hand, championed a more pragmatic view that linked the desire to obtain an object to its relative scarcity.

Pleasure and pain are, of course, subjective and therefore hard to measure.⁷ To get around this quantification issue, the marginalists proposed that the best proxy measure of pleasure and pain was found by simply analysing the behaviour of consumers in the market. Utility was seen to be directly related to the quantity of object consumed. To this end Jevons asserted:

A unit of pleasure or pain is difficult even to conceive; but it is the amount of these feelings which is continually prompting us to buying and selling, borrowing and lending, labouring and resting, producing and consuming; and it is from the quantitative effects of the feelings that we must estimate their comparative amounts. (1871, p.11)

Consumer choice was consequently assumed to represent an (inexact) indication of the amount of utility derived from consumption. The marginalists' treatment of utility inherently rendered their theories incapable of having anything insightful to say with regard to how the pleasures and pains of everyday life dictate the formation of preferences and tastes, or how these pleasures and pains drive consumptions choices. As Read (2004, p.4) declared, "while pleasures and pains constituted the metaphysical foundation of utilitarian economics, neither their measurement nor even their existence was central to their methods."

Like the economic classicists who came before, the marginalists viewed the consumer as a fundamentally rational economic agent with a set of exogenously imposed preferences. While the consumer became a fundamental part of their equilibrium analysis, consumption remained an end, rather than a topic of investigation. In his seminal work *Principles of Economics*, Alfred Marshall

⁷This is not to say that there weren't those devoted to obtaining objective measures of utility. One of the first proponents of mathematical economics, and close friend of William Jevons, Francis Ysidro Edgeworth, proposed the development of a 'hedonimeter', "a psychophysical machine, continually registering the height of pleasure experienced by an individual" to accurately measure individual utilities (Edgeworth, 1881, p.101).

wrote frankly about the inability of economics to provide an accurate account for what drives consumer behaviour:

It cannot be too much insisted that to measure directly, or *per se*, either desires or the satisfaction which results from their fulfilment is impossible, if not inconceivable. If we could, we should have two accounts to make up, one of desires, and the other of realized satisfactions. And the two might differ considerably. [...] But as neither of them is possible, we fall back on the measurement which economics supplies, of the motive or moving force to action: and we make it serve, with all its faults, *both* for the desires which prompt activities and for the satisfactions that result from them. (1890, p.78)

In his *Manuale di Economia Politica*, Pareto (1906) formally rejected the need to measure utility. Pareto showed that a complete map of an individual's utility could be obtained by plotting chosen consumption bundles from a set of all possible consumption bundles onto a family of indifference curves. When coupled with a given budget constraint, consumer choice will then simply be determined by which bundle(s) are on the highest affordable indifference curve. Furthermore, if a bundle is chosen then it follows that it must be on the same highest affordable indifference curve.

Pareto's treatment rendered cardinal measures of utility redundant. The amount of utility assigned to each indifference curve in any given family of indifference curves is irrelevant, provided that the numbers increase as the curves move further away from the origin. The adoption of ordinal measures of utility represented a further detachment from hedonistic utilitarianism. Measures of utility were divorced from any relationship with degrees of satisfaction, and comparisons of utility between individuals were impossible.

Pareto's departure from cardinal measures of utility was part of a wider

movement in economic thought. Pareto was joined by the likes of Slutsky (1915) and Hicks and Allen (1934), all of whom endeavoured to remove the subjectivist, psychological components of consumer theory from the discipline and invoke a new era typified by mathematical rigour. According to Paul Samuelson, however, such attempts had not yet reached their logical end.⁸ Writing in 1938, Samuelson stated:

It is clear that much of even the most modern analysis shows vestigial traces of the utility concept. [...] I propose, therefore, that we start anew in direct attack upon the problem, dropping off the last vestiges of the utility analysis. (p.62)

This quest to abandon the ‘last vestiges’ of utility provided the inspiration for Samuelson’s (1938 and subsequently 1948) ‘revealed preference theory,’ which has provided the textbook treatment of microeconomic explanations of consumer behaviour ever since its inception.⁹ Revealed preference theory relies on the consistency of consumer choices, that is to say “if an individual selects batch one over batch two, he does not at the same time select two over one” (Samuelson, 1938, p.65). This consistency, which came to be known as the Weak Axiom of Revealed Preference (WARP), coupled with the assumptions of given demand functions and zero saving of income enabled Samuelson to obtain most of the standard results of consumer behaviour in ordinal utility theory without relying on unobservable phenomena.¹⁰ The remaining integrability condition of Slutsky Symmetry was provided later by Houthaker (1950) with the Strong Axiom of Revealed Preference (SARP).

⁸Mas-Colell (1982, p.74) notes that Pareto, Hicks and Samuelson embarked on a drive to “liberate consumer theory from mysticism.”

⁹It is worth noting at this point that the term ‘revealed preference theory’ is something of a misnomer, as the theory ‘reveals’ nothing with regard to preferences.

¹⁰Namely, single-valuedness and homogeneity of degree zero of demand functions (that is to say, a doubling of all prices and income would leave prices unchanged) and negative semi-definiteness of the substitution matrix (in other words, own price substitution effects are negative).

Samuelson's (1948, p.251) follow-up paper on revealed preference theory declared "the whole theory of consumer's behavior can thus be based upon operationally meaningful foundations in terms of revealed preference." However, this meaningfulness is dependent on certain formal axioms regarding preferences. Notably, consumers must have rational and unchanging preferences that are complete, non-satiated, asymmetrical, strictly convex and transitive.

Despite being the dominant contemporary theory of consumer behaviour, revealed preference theory (like theories that went before) is inconsistent with fundamental features of a modern consumer society. The process of preference formation and change, along with widespread realities of consumption such as demand saturation and the diffusion of new commodities, are all ignored (Sassatelli, 2010). On a similar note Mas-Colell (1982, p.75) posits "the essence of revealed preference theory is the realization that the observable choice data will be far from inclusive of all conceivable choice experiments, and that therefore the task of recovering preferences will typically be far from trivial." With this in mind, revealed preference theory is unable to account for inconsistencies between preferences and demand behaviour, the impact of past purchases on future decisions, and other complex issues such as personal network effects and the impact of changing product quality and technologies. In short, Samuelson's theory is dependent on individuals making rational decisions, despite the fact that an increasingly large body of empirical research suggests that consumers often fail to conform to the formal axioms of revealed preference. It is this apparent tension between economic theory and the reality of observed consumer behaviour to which attention is now turned.

2.3 Critiques of neoclassical consumer theory

Hands (2013) notes that the work of Houthakker (1950) ensured that there would always exist a rationalising utility function: a utility function that, if maximised subject to a budget constraint, would generate the same demand

functions. This also means that ordinal utility theory and SARP-based revealed preference theory were equivalent. One could start from the consumer maximising a well-behaved ordinal utility function subject to a budget constraint, or from demand functions satisfying SARP, and the empirical restrictions on demand functions would be exactly the same.

Houthakker himself recognised Samuelson’s apparent u-turn in regard to eliminating the last vestiges of utility from consumer theory, stating “the stone the builder rejected in 1938 seemed to have become the cornerstone in 1950” (Houthakker, 1983, p.63). Stanley Wong, a prominent critic of revealed preference theory, used Samuelson’s own irregularities in his treatment of utility to argue that he fails to adhere to his own weak axiom of revealed preference (Wong, 2006). Revealed preference theory undoubtedly provides a valuable tool with which to analyse observed consumer behaviour; however its use in contemporary economic thought to offer a way of explaining and predicting consumer behaviour leaves a lot to be desired.

Binmore (2008, p.20) argues that “the price of abandoning psychology for revealed preference theory is [...] high.” He goes on to suggest economists must “give up any pretension to be offering a causal explanation of [...] choice behavior in favor of an account that is merely a description of the choice behavior of someone who chooses consistently.” Binmore describes economists’ attempts to derive underlying explanations of choice from revealed preference theory as the ‘causal utility fallacy.’ That is to say, the revealed preference notion that an individual will choose batch one rather than batch two because the utility of batch one exceeds that of batch two is incorrect. Rather it is because the individual chooses batch one over batch two that we can say the individual prefers batch one to two and therefore will assign a larger utility to it. Viewed from this perspective, revealed preference theory can offer no explanatory insights with regard to how preferences are formed or how a consumer’s tastes, wants and desires will influence their consumption decisions. Folk psychology¹¹

¹¹Defined by Hausman (2000, p.103) as “the theory people employ in everyday life to

dictates that individuals have preferences and those preferences, along with any constraints the individual may face, cause the observed choice behaviour. Revealed preference theory, however, postulates just the reverse. In fact, consumer theory based on revealed preference theory “abandons any attempt to explain why people behave as they do” (Binmore, 2009, p.542).

Similar critiques are offered by the likes of Bernheim and Rangel (2008, p.159) who state, “though we often speak of choice as determined from preferences, the opposite is actually the case. Standard economics makes no assumption about how choices are actually made; preferences are merely constructs that summarize choices.” Gul and Pesendorfer also point to the interchangeability of the terms ‘utility maximisation’ and ‘choice’ under revealed preference theory:

A utility function is always an ordinal index that describes how the individual ranks various outcomes and how he behaves (chooses) given his constraints (available options). The relevant data are revealed preference data; that is, consumption choices given the individual’s constraints. These data are used to calibrate the model (i.e., to identify the particular parameters) and the resulting calibrated models are used to predict future choices and perhaps equilibrium variables such as prices. Hence, standard (positive) theory identifies choice parameters from past behavior and relates these parameters to future behavior and equilibrium variables. (2008, p.8)

Another vocal critic of revealed preference theory is the economic philosopher Daniel Hausman. Hausman (2011) takes particular umbrage with the restrictive formal axioms placed on preference by the orthodox view of consumer behaviour. He remarks that such axioms may occasionally be satisfied, but this is often

predict and explain actions.”

not the case. Furthermore, Hausman (2011) argues that an economic theory that fails to investigate preference formation is far from complete:

If preferences were complete and settled before economists go to work, it would not matter how preferences are formed. But if economists took preferences among the immediate objects of choice to be given, they would have little to say about behavior, other than that people choose what they prefer. (p.117)

Hausman (2011, p.34) goes on to assert that “preferences determine choices only in conjunction with beliefs,” and therefore any attempt to explain consumer behaviour must incorporate an individual’s beliefs. Specifically, the author states:

Beliefs mediate the relationship between choices and the preferences with which economists are concerned. Economists can infer preferences from choices or choices from preferences only given premises concerning the agent’s beliefs. Different preferences can lead to the same action, depending on what the agent believes. Neither beliefs nor preferences can be identified from choice data without assumptions about the other. (Hausman, 2011, p.30)

Hausman argues that merely observing the choice of an individual provides researchers with insufficient information to determine that same individual’s preferences, and therefore any information provided by that first choice observation cannot be used to predict future choices. To be useful, all decisions must be accompanied by information about the beliefs that prompted the individual’s choice. For example an individual might choose to purchase a family sedan over a fast Italian sports car, and if both options were affordable one might infer that the individual held a preference for the family sedan.

However, such a choice can conceivably be tempered by beliefs about the two cars. The individual could believe that the family sedan was a safer and more reliable choice for his everyday transportation needs (and thus choose this option), but simultaneously still hold a preference for the sports car. It is Hausman's view that only when we have information on beliefs that we can begin to determine the drivers of consumer behaviour with any accuracy.

To this end Hausman (2011) suggests that preferences in economics are 'total subjective comparative evaluations': total in the sense that individuals are assumed to compare all alternatives available to them; subjective in that only the individual can understand their choice sets and consequences; comparative, meaning that an individual can always prefer one good when compared to another (even though they may desire both); and evaluations, in that preferences are cognitively demanding and take into account everything relevant to choice such as moral commitments and beliefs regarding consequences. It is these cognitive demands, however, that render the standard axioms of completeness and transitivity unrealistic in observed choice behaviour. In earlier writing on the topic Hausman (2008) posits:

Economists cannot function without a subjective notion of preference, which does not and cannot stand in any one-to-one relationship with choices. Once economists are convinced of this conclusion, they will have no reason to speak of "revealed preference" and excellent reason to avoid this misleading terminology. (p.132)

Amartya Sen, another long-time critic of revealed preference theory, points to a more fundamental logical inconsistency regarding Samuelson's weak axioms. Sen (1997a, p.56) argues that choices can only be found to be inconsistent if we "peep into the head of the consumer, the avoidance of which is alleged to be the aim of the revealed preference approach." Furthermore, Sen (1997a) states:

Faith in the axioms of revealed preference arises, therefore, not

from empirical verification, but from the intuitive reasonableness of these axioms interpreted precisely in terms of preference. In fact, the concept of taste change is itself a preference-based notion, and the whole framework of revealed preference analysis of behaviour is steeped with implicit ideas about preferences and psychology.
(p.57)

On a more poetic note, Grüne-Yanoff (2004, p.387) declares, “all of the intuition behind consistency [in a consumer’s choice] is derived from deliberation based on mental states; to deny this background while insisting on its intuition is to want the song without the bird.”

While explanations regarding the nature of preference formation and the determinants of demand are crucial to the advancement of consumer theory, they remain outside the scope of orthodox microeconomic theory. Divergence of observed consumer behaviour from the axioms placed on preferences is common and unaccounted for. Furthermore, a vast array of experimental findings suggests that the standard model of choice developed by Samuelson, and adopted by so many others, often struggles to predict observed market behaviour. Such failures have paved the way for the development of a new theory of the consumer, as will now be discussed.

2.4 Towards a new theory of the consumer: Discrete choice analysis

Ben-Akiva et al. (1999, p.189) note that the standard neoclassical model of choice “looks only at the distribution of outcomes [and] handles individual preference volatility in the same way that it handles heterogeneity in preferences across individuals.” Therefore the model “cannot explain cognitive anomalies that correspond to shifts in the distribution of preferences, nor is it immune to

experimental refutation.”¹² Such criticisms highlight the need to incorporate psychological aspects of consumer behaviour into models of choice. One alternative that has been put forward is to model economic choices using data on an individual agent level, a field known today as ‘discrete choice analysis’ (DCA). As Daniel McFadden¹³ notes:

Before the 1960’s, economists used consumer theory mostly as a logical tool [...] When the theory was applied empirically, it was to market-level or national-accounts-level data. In these applications, the theory was usually developed in terms of a representative agent, with market-level behavior given by the representative agent’s behavior writ large. When observations deviated from those implied by the representative agent theory, these differences were swept into an additive disturbance and attributed to data measurement errors, rather than to unobserved factors within or across individual agents. (2001, p.351)

DCA was stimulated by the arrival in the 1960s of individual level survey data, giving researchers a much greater insight into how consumer behaviour deviates across individuals. With these new sources of data, McFadden (2001, p.351) states, “it became important to explain and model these variations as part of consumer theory, rather than as ad hoc disturbances.” In subsequent writing on the topic, McFadden goes into further detail regarding the development of DCA:

¹²Ben-Akiva et al. (1999, p.189) also note that “systematic failures of rationality do not necessarily imply a total rejection of the standard model. Because we can never measure all the aspects of the complex life-course of consumer choices, we are never sure whether what appears to be irrational behaviour in some limited time window is not part of an overarching rationality, a grand strategic design.” However, the authors go on to assert that the standard model of choice, “may blind us to behavioural evidence that challenges rationality at a more fundamental level.”

¹³McFadden, one of the pioneers in this discipline, was awarded the 2000 Nobel Memorial Prize in Economic Sciences for ‘for his development of theory and methods for analysing discrete choice.’

As microdata on individuals and computational capacity have expanded over the last half-century, neoclassical econometric demand systems predicated on linear budget sets and representative consumers have proven uncomfortably restrictive. These systems could not deal easily with preference heterogeneity, acquired tastes, shifting hedonic attributes of commodities, non-linear budget sets, time, space, or uncertainty, and the frequent cases of zero and lumpy purchases. It was necessary to expand the domain of the theory. (2013, p.14)

With the benefit of hindsight, McFadden posits that trying to explain such variations has led to the “tools we have today for microeconomic analysis of choice behavior” (McFadden, 2001, p.351).

DCA models an individual’s choice from a set of mutually exclusive and collectively exhaustive alternatives. As is the case with orthodox models of consumer behaviour, individuals are considered to be utility maximisers. Consequently the decision maker will choose the alternative that brings them the highest utility amongst the choices available at the time. The analysis utilises a model of parameterised utility functions that incorporate observable independent variables and a suite of unknown random parameters, the values of which are estimated from the observed choices made by individuals. Thus, a key feature of discrete choice models is the incorporation of random utility theory, which separates the utility gained by an individual into two components, a systematic (observable) component and a random (unobservable) component. Randomness is said to arise from the fact that individuals are flawed when it comes to making consistent consumption choices, a trait which neoclassical theory fails to acknowledge.

Implicitly, models of discrete choice imply that the estimation of consumer demand by one model that fits all individuals is naive. Instead, the true utilities of the alternative choices are considered random variables, and the probability

that an alternative is chosen is therefore the probability that it derives the greatest utility among all the available choices. A full account of DCA will be given in Chapter 4. Here we simply summarise its place in the evolution of the theory of consumer behaviour.

The origins of such probabilistic choice models can be traced back to Thurstone's (1927) introduction of The Law of Comparative Judgment. Jacob Marschak (1960) then adapted Thurstone's work to economics with his development of the random utility maximisation model. At a similar time, Luce (1959) established Luce's choice axiom, which states that the ratio of probabilities of two given choices out of any set of alternative choices is not impacted by the presence (or absence) of any other alternatives, thus exhibiting what is now commonly referred to as the axiom of 'independence from irrelevant alternatives.' As McFadden (2001) notes, Luce's axiom "simplified [the] experimental collection of choice data by allowing multinomial choice probabilities to be inferred from binomial choice experiments."

McFadden (1975) proceeded to develop the multinomial logit model, which characterised alternative choices in terms of their hedonic attributes. This model linked empirical consumer theory to the psychological measurement of psychical stimuli, in line with contributions by Griliches (1961) and Lancaster (1966). At the time, McFadden (2001, p.354) viewed his multinomial logit model as "a small and in retrospect obvious contribution to microeconomic analysis." However, the contribution marked a paradigm shift in the analysis of consumer behaviour, which has spawned myriad of applications across the field of economics. McFadden's (1973, p.106) contribution *Conditional Logit Analysis of Qualitative Behaviour* was particularly influential. Here McFadden documents a direct procedure "for formulating econometric models of population choice behaviour from distributions of individual decision rules," thereby incorporating unobserved preference heterogeneity into a consistent account of the distribution of demands.

The incorporation of psychological factors that influence the decision-making

process into models of choice marks a particular advance on the ‘revealed preference’ treatment of consumer theory. As we have discussed, applications of standard neoclassical models of consumer choice fail to take into account an individual’s experience or perceptions. DCA, on the other hand, permits the incorporation of cognitive and psychometric effects into the choice modelling process. This allows economists to examine the underlying roots of preference formation and develop more realistic pictures of the determinants of demand, and ultimately make more insightful inferences with respect to consumer behaviour.

2.5 Chapter summary

This chapter explored the evolution of consumer choice theories throughout the history of economic thought in order to provide the context for subsequent theoretical discussions and empirical applications contained within this thesis. The road from classical political economic theory, with its focus on rational choice, to the marginalists’ emphasis on utility was charted. These developments paved the way for the mathematical rigour of Samuelson’s ‘revealed preference theory.’

Theories of revealed preferences have, however, not been immune to criticism. A vast array of experimental findings suggest that the standard model of choices, developed by the likes of Samuelson, often fail to predict observed market behaviour. Furthermore, divergence of consumer behaviour from the restrictive formal axioms placed on preferences are common and unaccounted for.¹⁴

Gul and Pesendorfer (2008) succinctly describe the crux of the problem at

¹⁴See, for example, Sen’s (1997b) discussion of menu-dependence, where individual preferences are said to depend on changes in the choice space and the introduction of a moral and social obligation. On a similar note, Lichtenstein and Slovic (2006) declare that an individual’s preferences are dependent on the framing of the choice problem.

hand:

Standard economics focuses on revealed preference because economic data come in this form. Economic data can - at best - reveal what the agent wants (or has chosen) in a particular situation. Such data do not enable the economist to distinguish between what the agent intended to choose and what he ended up choosing; what he chose and what he ought to have chosen. The standard approach provides no methods for utilizing non-choice data to calibrate preference parameters. (p.8)

The criticisms levelled at revealed preference theory have, to a certain degree, prompted the development of discrete choice analysis, which is becoming an increasingly popular tool with which to analyse consumer behaviour. The ability to incorporate consumer and product specific characteristics into models of discrete choice permits a much richer understanding of how consumers reach their demand decisions to be made, in comparison to revealed preference methods.¹⁵

Having documented the evolution of discrete choice analysis, our attention is now turned to how such models could be utilised to advance our understanding of a consumer's choice of cultural goods. Chapter 3, therefore, begins by taking a detailed look at the traits and characteristics that make cultural goods unique. We will then focus on how existing empirical methods of analysing the provision and valuation of cultural goods, rooted in the neoclassical tradition, often fail to account for such traits. This failure provides the impetus for the application of discrete choice models to cultural goods, a topic that will subsequently be examined in detail.

¹⁵One does however have to be mindful of methodological issues regarding trade-offs between the gains in descriptive accuracy permitted by explanatory modelling such as discrete choice analysis and a potential loss of overall predictive power that comes with the use of such detailed models (see, for example, Shmueli, 2011).

3 The economic analysis of cultural goods

Having examined the neoclassical treatment of the consumer and the subsequent advances offered in the form of discrete choice analysis, attention is now turned to how such theories have been applied to cultural goods. We begin by highlighting the exceptional nature of cultural goods, and posit that such goods have the potential to embody certain intangible consumption benefits. These intangible benefits, it has been argued, imbue cultural goods with a cultural value distinct from its economic value, as measured by the price in exchange. The experiential nature of cultural goods is also discussed in detail.

With the unique characteristics of cultural goods in mind, two prominent valuation methods (economic impact studies and contingent valuations) are introduced. While such methods have undoubtedly advanced our understanding of cultural good consumption patterns, the relative weaknesses of such models pave the way for the introduction of discrete choice modelling as a potentially advantageous way of analysing the consumer choice of cultural goods. The chapter concludes with an examination of the burgeoning literature regarding the application of discrete choice analysis to cultural goods, the limitations of which provide the motivation for the subsequent analysis contained within this thesis.

3.1 The exceptional nature of cultural goods

The art that matters to us - which moves the heart, or revives the soul, or delights the senses, or offers courage for living, however we choose to describe the experience - that work is received by us as a gift is received. Even if we have paid a fee at the door of the museum or concert hall, when we are touched by a work of art something comes to us that has nothing to do with the price. (Hyde, 2007, p.xvii)

Defining just what is meant by the term culture, and in turn, a cultural good is a non-trivial task. Cultural studies pioneer Raymond Williams (1985, p.87) goes as far as to suggest that culture is “one of the two or three most complicated words in the English language.”¹⁶ While the term ‘culture’ is often used to describe particular forms or stages of entire civilisations, thick descriptions such as this have a limited usefulness to the cultural practitioner. To this end, Harrison and Huntington (2000, p.xv) note “if culture includes everything, it explains nothing.”

Throsby (2001) also argues against the use of expansive definitions of culture and proposes two distinct definitions for those in search of a functional treatment of the word. Firstly, culture is defined in the anthropological or sociological sense to “describe a set of attitudes, beliefs, mores, customs, values and practices which are common to or shared by any group” (p.4). Such ‘groups’ can be differentiated on the grounds of ethnicity, locale, gender, age and so on, therefore rendering this definition particularly amenable to examining the links between unique intra-group cultural elements and wider economic development issues. Secondly, culture is defined in a more practical sense to denote “certain activities that are undertaken by people, and the products of those activities, which have to do with the intellectual, moral and artistic aspects of human life” (p.4). Specifically, such cultural activities must involve some form of creativity in their production, along with the generation and communication of symbolic meaning. The output of such cultural activities must also have the potential to embody some form of intellectual property. It is this second definition of culture, specifically the notion that cultural activities can produce tangible cultural outputs, that this chapter (and indeed thesis) will be centred on.¹⁷

¹⁶Williams (1985, p.87) puts such complications down to two distinct factors. Firstly, the intricate development of the word throughout history in a number of European languages, and secondly, “because it has now come to be used for important concepts in several distinct intellectual disciplines and in several distinct and incompatible systems of thought.”

¹⁷It should be noted that Throsby’s second definition of the word culture fits nicely with Williams’ (1985) notion of culture being an independent and abstract noun used to describe the works and practices of intellectual and especially artistic activity. Indeed Williams states that this is now the most ubiquitous use of the word, that is to say: “culture is music, literature, painting and sculpture, theatre and film” (p.90).

This notion of a set of objectively definable characteristics for cultural activities permits an important distinction between cultural goods and other market goods to be made. This distinction has been further emphasised in subsequent literature on the topic. For instance, Klammer (2002) states that cultural goods:

Represent, or serve to realize, cultural values. [...] They all share the property that they can inspire awe, wonderment or convey a sense of the sublime. Their value is that they mean something over and beyond whatever economic and social values they have, like cows in the experience of Indians, an aboriginal painting in an aboriginal context, or an icon for a Rumanian Roman-Catholic.
(p.15)

If one accepts the proposition that cultural goods carry with them certain intangible consumption benefits that stem exclusively from their cultural nature, then the incorporation of such benefits into the economic analysis of cultural goods becomes of particular interest and importance.

3.2 Introducing the notion of cultural value

It may be tempting to examine the exchange of private cultural goods in much the same way as any other private market good.¹⁸ Demand and supply functions for private cultural goods can be derived from the analysis of consumers' willingness to pay and producers' marginal costs respectively. Put together, these functions can yield information regarding the equilibrium price in exchange and the corresponding quantity of the cultural good in question traded in the market. For the neoclassically inclined economist, this price in exchange

¹⁸The word 'private' here is used in the economic sense, where a private good is considered to be one that is both rivalrous and excludable.

captures the full value of the cultural good and is therefore considered to be the fundamental measure of its value. However, the disconnect between the economic value of a cultural good, measured in terms of the price in exchange, and the cultural value bestowed upon individual consumers of the very same good has long been acknowledged. Indeed, it was upon the notion of cultural value that Throsby (1999) introduced the concept of ‘cultural capital’ to the economic lexicon. Specifically, Throsby suggested that a cultural good, or asset:

May have economic value, which derives simply from its physical existence [...] and irrespective of its cultural worth. But the economic value of the asset is likely to be augmented, perhaps significantly so, because of its cultural value. (1999, p.8)

This notion of cultural value, particularly discussions as how best to quantify such a value, has gone on to dominate the economic analysis of cultural goods.¹⁹ While the economist and the culturalist may approach the concept of ‘value’ from very different angles, Throsby (2001) is keen to point out that the disconnect between economic and cultural value is not what separates the two disciplines, it is what unites them. The author goes on to note:

In both of the fields of our concern, economics and culture, the notion of value can be seen, despite its differing origins, as an expression of worth, not just in a static or passive sense but also in a dynamic and active way as a negotiated or transactional phenomenon. (p.19)

¹⁹It is worth noting at this point the generation of a cultural value resulting from the consumption of a cultural good is analogous to the generation of positive externalities created by the existence of public goods. In much the same way that a mother who immunises her child greatly benefits society as a whole, an individual’s consumption of a particular cultural good could potentially give rise to a number of societal benefits that should be properly incorporated in the economic modelling process.

With its focus on revealed preference and price in exchange, the dominant neoclassical view of economics leaves little scope for the reconciliation of economic and cultural values in its analysis. On this matter, Klammer (2003, p.193) posits “[neoclassicists] take the road of rational choice and refuse the notion of value in their vocabulary.” The overriding focus on ideas of private utility and rational choice theory led economists such as Blaug (2001, p.126) to suggest that those wishing to obtain some genuine theories of preference formation in regards to cultural goods and services may well be forced to “scrap the entire neoclassical framework.” On a similar note, Klammer (2003, p.194) called for a broadening of economic horizons, declaring: “I simply want to allow for the possibility of another road, one that will urge us to at least consider the musings, confusions and deliberations about values.”²⁰

However, despite such critiques regarding the use of price in exchange as a yardstick of both economic and cultural value, Throsby (2001, p.24) notes, in the case of private cultural goods, “the use of data derived directly from market transactions is widespread and widely accepted for such purposes.” It is suggested that the reliance on such an inadequate measure of cultural value can be put down to the difficulties associated with quantifying the cultural nature of a good. To this end, Throsby (2010, p.18) posits that the measurement of cultural value has proven to be extremely challenging due to “the undeniable fact is that cultural value is complex, multifaceted, unstable and lacking in an agreed unit of account.”

For Kalman (2014, p.98), the problem stems from the fact that “economic and cultural value represent two separate value systems, and cultural value cannot be captured by conventional economic modelling.” Rather ominously, Kalman goes on to suggest “the challenge is to reconcile the two value systems, or to ensure that assessments of value take both into account. Thus far no

²⁰On a similar note, the valuation of public cultural goods also poses significant challenges. Such goods are both non-rivalrous and non-excludable (a sculpture park with free entry, for example), this results in either the complete absence of a price in exchange with which to determine value, or a price in exchange that (much like in the case of private cultural goods) provides an incomplete measure of cultural value.

workable solution has been found.”

Before delving into what efforts have been made to find a ‘workable solution’ to reconciling the two value systems with which we are concerned, we should first address why one cannot simply just use a measure of an individuals’ willingness to pay for a cultural good as a measure of its cultural value.²¹ After all, as Throsby (2001) notes:

Since neoclassical economic theory makes no assumptions about the source of individuals preferences, such preferences may just as well arise from the person’s internal processes of cultural appraisal, influenced by whatever cultural criteria or norms are regarded as important from the external environment, and assessed according to some consistent cultural value scale of their own making. (p.31)

If the relationship between an individual’s own cultural value scales and their willingness to pay was found to be robust, then an argument could be put forward that we have all the information necessary to ascertain cultural value. Individual consumers will be willing to pay more for goods which they perceive to possess a high degree of cultural value; furthermore these individual assessments could be aggregated in some way to provide society-wide valuations of cultural goods.

While the use of willingness to pay as measure of cultural value would certainly make the life of a cultural economist a much simpler one, a number of arguments have been advanced as to why it is inadequate for such tasks. Throsby (2001), details four shortcomings of willingness to pay. Firstly, consumers may simply not hold enough information regarding the cultural good in question. This information failure inherently biases any internal calculation of willingness to pay. Secondly, differences in cultural goods are often qualitative.

²¹Willingness to pay is defined as the maximum amount an individual consumer is willing to sacrifice in order to procure the cultural good in question.

Therefore, some characteristics of cultural goods may not be amenable to being expressed in terms of an individual's willingness to pay (for example, when placed side-by-side, two paintings may just simply be 'different' and not necessarily 'better' or 'worse' than each other). Thirdly, an individual may be able to recognise the cultural value of a good but receive no utility from it, and therefore will have a willingness to pay of zero. Finally, individual measures of willingness to pay may be inadequate when the cultural value of the good in question arises because the individual is a member of a group. In this case, utility from the sense of collective or shared experience is dependent on the group as a whole and may not be adequately accounted for by individual measures of willingness to pay.

With these shortcomings of valuation via willingness to pay in mind, Throsby then highlights a more fundamental problem with the reliance on such a metric:

Cultural value is inherent in objects or other cultural phenomena, existing independently of the response to the object by the consumer. If this were so, it would not require an individual to experience the value in order for the value to come into being, and hence whether the individual were willing to surrender other goods and services to acquire the object would be irrelevant to the existence of the object's cultural value. (2001, p.32)

3.3 Unpacking the components of cultural value

Having sounded the death knell to the use of willingness to pay as a possible way to reconcile our two value systems, it is suggested that any attempt to quantify cultural value should begin with an investigation into the origins of the notion. To this end, Throsby (2001, p.26) notes "the dimensions of cultural value and the methods that might be used in assessing it are matters which must originate in a cultural discourse, even if at some point it might be possible

to borrow from economic models of thought as one way of modelling them.” Indeed, attempts to assess the true value of a cultural good are not purely restricted to the domain of the cultural economist. Corse and Griffin (1997, p.174), for example, note that “the process of cultural valorization [...] has garnered increased attention from cultural sociologists in recent years.”

Traditionally, the value of a cultural good was considered to emanate from its hedonistic and aesthetic attributes (in a work of art, for example, one may take pleasure in the depth of a colour or the texture of the medium). Inherently, this renders judgements of cultural value subjective and highly dependent on the tastes and preferences of the individual who happens to be consuming the good. In turn, this subjectivity makes the aggregation of individual calculations to determine a societal measure of cultural value almost impossible. Methodological advances in fields such as cultural sociology and linguistics (see for example Crane, 1987; DiMaggio, 1987; Zolberg, 1990) have attempted to shift the cultural value focus from heterogeneous subjective interpretations to a more relativist approach. Despite this shift, a true unit of account with which to quantify cultural value is yet to be devised, leading to what Throsby (2010) calls a ‘crisis in value’. The crisis is neatly summed up as follows:

On the one hand the neatly circumscribed principles of economic evaluation lead to what appear to be unambiguous estimates of the economic value of cultural goods and services, whilst on the other hand cultural value seems to resist precise, objective and replicable means of assessment. (p.18)

Fortunately, for those looking for a way to overcome the crisis in value, all is not lost. Throsby (2001, p.28) argues: “it may be possible, with sufficient regularity across individual responses, to find consensual agreements in particular cases which are interesting in their own right.” There can be little doubt that the complexities associated with the measurement of cultural value

have been one of the main drivers behind its continuing exclusion from the economic analysis of cultural goods (as is evidenced by the reliance of value in exchange outlined above). However, the multifaceted nature of cultural value, coupled with Throsby's acknowledgement that consensual agreements may be of use, has spurred one of the few attempts to provide a theoretical base upon which cultural value can be quantified. Specifically, Rizzo and Throsby (2006) suggest measurement issues can be tackled by disaggregating the concept of cultural value into its constituent parts, thus permitting a thorough evaluation of each of the elements that make up cultural value. If a simple score can be assigned to each element then a composite index of cultural value can be created, thus permitting comparisons across goods.²² Rizzo and Throsby (2006 p.998) suggest that a work of art, for example, can conceivably contain the following elements of value:

- aesthetic value: beauty, harmony;
- spiritual value: understanding, enlightenment, insight;
- social value: connection with others, a sense of identity;
- historical value: connection with the past;
- symbolic value: objects or sites as repositories or conveyors of meaning;
- authenticity value: integrity, uniqueness.

While the disaggregation of cultural value into a number of constituent parts does not negate the need to be able to measure each individual element, a number of assessment methods, drawn from a variety of disciplines, have been proposed. These include mapping (contextual analysis), thick (interpretive) descriptions, attitudinal analysis (social survey methods, psychometric

²²A precursor to this idea was presented by Nijkamp (1995) who developed evaluation indicators for cultural heritage sites.

measurement, etc.), content analysis and expert appraisal. The proposed disaggregation serves to make the concept of cultural value more easily articulated, and permit the examination of each constituent elements contribution to the overall cultural value of the good. As Throsby (2001) notes:

If such an approach at least gives a clearer sense of the material from which cultural value is formed, it may offer some hope of progress towards operationalising the concept of cultural value in such a way that its importance alongside economic value can be more vigorously asserted. (p.31)

Of course, cultural economists may have to be open to the possibility that quantification of cultural value may not be possible under any pre-existing metric. One could, for example, view cultural value as a flow rather than a stock which can be counted. In this context, the qualities of a cultural good may be seen to gather strength over time, as opposed to being a single, quantifiable measure. On a similar note, Crossick and Kaszynska (2014, p.124) argue that many attempts to capture the value of art and cultural value are run with the sole purpose of obtaining a unit of account for cultural value, something which may be “ill-fitted to the cultural phenomena concerned.”

Nevertheless, it is argued that the difficulties associated with quantifying cultural value should not excuse the exclusion of a good’s cultural nature from its economic analysis. To do so is to ignore a fundamental influence with regard to the demand for the good in question. Investigations into the consumer choice of a cultural good which fail to account for the cultural nature of said good are, to a certain degree, missing a crucial element relating to how consumers choose and value them. With this in mind, later in this chapter we will examine common existing valuation techniques for cultural goods and evaluate their successes and failures in attempting to incorporate cultural value into their analysis. However, it is first prudent to take a look at other characteristics of cultural goods that distinguish them from other market goods.

3.4 The experiential nature of cultural goods

The notion of ‘experience goods’ was first introduced by Nelson (1970) who suggests there are certain types of good for which quality and enjoyment can only be fully assessed *after* consumption. When tasked with the purchase of an experience good, consumers typically look for signals that provide some information about the product in question in order to estimate their expected utility from consumption. As a result, search costs for such goods are generally high.²³ In the market for experience goods, such signals are usually comprised of information provided directly by the producers of the good (advertising or product trials, for example) or obtained from a network of independent experts (such as a product review in a magazine). The influence of word of mouth is also being recognised as an increasingly important signalling tool (see, for example, De Vany, 2004; Kretschmer et al., 1999; Liu, 2006).

Hutter (2011a, p.211) argues that the economic examination of experience goods “appears to be of increasing theoretical and practical relevance.” Early efforts to incorporate the experiential nature of a good into models of consumer choice took the form of limited extensions to neoclassical theories. Recently, however, the provision of pure experiences (driven to a large extent by the emergence of information-intensive economies) is increasingly being viewed as a way in which the aggregate production of entire economies can be increased. Hutter (2011b) notes that as such growth is typically associated with unusually high rates of product change this sector of the economy has become known as the ‘creative industries.’²⁴

The analysis of experience goods presents a variety of theoretical challenges. Hutter (2011a, p.212) suggests that “the distinction between experiences as

²³Hutter (2011a) contrasts experience goods with two other broad categories of goods. First, there are ‘everyday’ market goods for which quality is easily determined before purchase, resulting in low search costs. Second, there are ‘credence’ goods for which quality is difficult to determine even after consumption. Such goods could include the likes of medical procedures or automobile repairs.

²⁴See, for example, DCMS, 1998; UNCTAD, 2008.

experiments and experiences as goals in themselves becomes blurred.”²⁵ Seen in this light, the *experience* of consuming an *experience good* can be said to generate a value in and of itself. This ‘experience value’ is not dissimilar to each of the components of cultural value discussed earlier in this chapter and equal care must be taken to ensure its influence is adequately captured in models of consumer choice.

Experience goods are a distinct class of goods of which cultural experience goods are only a subset. That is to say, there are many experience goods that are not ‘cultural’ in nature (take, for example, a meal at a restaurant or a visit to the dentist). It is suggested, however, that when a good incorporates both cultural *and* experiential traits it takes on a set of unique demand characteristics that distinguish it from experience goods in general. In their discussions on the consumption of art, Levy-Garboua and Montmarquette (2011) succinctly acknowledge such differences:

The consumption of art challenges the conventional assumptions of homogeneous goods and services, completed learning of tastes, independence of choice among individuals and so forth. How do we deal with aesthetic quality and the heterogeneity of tastes? How do consumers who do not have full knowledge of their own tastes decide and rely on others? [...] The subtle alchemy of individual taste for the arts ultimately relies on experience. (p.177)

On a related note, Towse (2010) states:

What is different about the arts and culture is that they deal with novelty and new experiences, about which consumers cannot be

²⁵Such a distinction stems from the work of Scitovsky (1976), who proposed that the novelty of a good was the primary ‘object of desire’ and utility may therefore be gained from the uncertainty or experience of consumption.

fully informed, and people do not rely just on their own judgement
but listen to experts and/or follow the crowd. (p.151)

Throsby (2012) acknowledges that the experience of consuming a cultural good may be an end in itself, a foundation for further experiences or a long-term generator of taste. The author goes on to suggest a more fundamental connection between the theory of experience goods and the theory of cultural value, suggesting that experience can also be interpreted as “a fundamental element in the model of transactional processes in the marketplace for ideas that lead to the determination of cultural value.” In other words, the process of repeated consumption experiences “serve to mould individual cultural valuations relating to a given cultural good” (p.24).

The notion that an individual’s cultural experience good valuation could be complicated by the evolution of their tastes and preference for a particular cultural good category over time was also put forward by Klammer (2003, p.200) who suggests: “values may change. People develop values and adopt new values. They may learn to develop a positive attitude. In the language of economists we would say that they acquire their taste (see, e.g., Throsby 1994 and Becker 1998).” Ateca-Amestoy (2007) draws particular attention to the fact that cultural goods display a broad heterogeneity in behavioural patterns of consumption, while tastes and preferences for cultural goods vary greatly over a consumer’s lifetime. Ateca-Amestoy also posits that cultural goods are distinctive in that they incorporate an inter-temporal consumption effect - that is to say, past levels of consumption influence future levels of consumption. Specifically, McCain (1995) suggests that individuals who consume cultural goods now will be more likely to consume a larger quantity of cultural goods in the future.

This dynamic accrual of tastes over the lifespan of the consumer is in direct contradiction of the complete and unchanging preferences imposed in Samuelson’s (1948) theory of revealed preferences. Alderighi and Lorenzini (2012) note

that attempts have been made to incorporate taste accumulation into neoclassical models of demand, and such attempts usually fall into one of two distinct camps. Firstly, the learning by consuming approach (Brito & Barros, 2005; Levi-Garboua & Montmarquette, 1996; McCain, 1979, 1981; Ulibarri, 2005) which sees consumers develop their own preference structure through a series of positive or negative consumption experiences. Future consumption is increased when a consumer receives positive consumption feedback and decreased when a consumer receives negative consumption feedback. Secondly, rational addiction theory (Becker et al., 1994; Becker & Murphy, 1988; Stigler & Becker, 1977) posits the consumption of certain goods can be addictive in the sense that there is a causal effect of past consumption on current consumption. The consumer will then consume more and more of the good - hence the ‘addiction’ in rational addiction.

The aim of this chapter thus far has been to examine the features that distinguish cultural goods from everyday market goods. In doing so, we have seen that such goods have the potential to embody a cultural value (which, following Rizzo and Throsby [2006], can be further broken down into component elements). Furthermore, the experiential nature of cultural goods means that the role of information and learning and experience plays an important part in a consumer’s choice making process. With these unique traits in mind, we will now examine the common frameworks used for the valuation of cultural goods, with particular attention paid to how well each of these valuation methods incorporates the aforementioned unique characteristics of such goods.

3.5 Existing valuation methods

Endeavours to measure the value of cultural goods are predominately centred around one of two distinct methodologies: studies of economic impact or contingent valuation surveys. As will be shown, the nature of each of these valuation methods renders them rather ‘blunt’ tools with which to examine

individual cultural goods. Snowball (2008) notes that are usually reserved for the domain of whole cultural industries or events due, to a large extent, to the lack of data available to researchers.²⁶ Nevertheless, their popularity in the cultural economics literature persists. With this in mind, a discussion of each valuation method now follows, along with an outline of their relative strengths and weaknesses.

3.5.1 Economic impact studies

Economic impact studies (EIS) aim to offer a richer evaluation of industries or events, across a given time or geographical area, than a typical financial balance sheet analysis can provide. When such industries or events are publicly funded, a simple comparison of income versus expenditure does not give an accurate depiction of the wider economic benefits that accrue to residents of the area of interest. With this in mind, the goal of EIS is to estimate the magnitude of returns to the community of interest (Crompton et al., 2001).

While a detailed practitioner's guide to conducting EIS lies outside the scope of this thesis, the majority of impact studies follow a standard framework. The first step involves the calculation of the direct net economic impact: the net economic injections into the area of interest as a result of the industry or event. Snowball (2008) notes that, in the case of events, this calculation of direct impact is often facilitated by the collection of planned spending data via a survey of event attendees, producers and media; and then extrapolating this data over the total number of attendees. With this in mind, the sourcing of

²⁶When audience and participation data have been available such studies tend to derive functions linking demand for the cultural good in question with a set of explanatory variables such as price, quantity or a suite of socio-demographic characteristics known to influence consumption. The end goal of such research, therefore, focused on the estimation of some of the competing determinants of cultural good consumption, along with an array of price and income elasticities (see, for example, Seaman [2006] who offers a comprehensive review of the literature relating to empirical studies of demand for the performing arts, or individual studies conducted by Akdede & King, 2006; Cameron, 1990; Corning & Levy, 2002; Laamanen, 2013; Moore, 1966; Throsby, 1990; Throsby & Withers, 1979; Urrutiaguer, 2002).

accurate attendance figures is crucial to the integrity of EIS. This is often a non-trivial task, particularly in the case of events with free attendance.

The second step of EIS pertains to the calculation of the indirect impact of the industry or event. In macroeconomic terms this is akin to finding the industry or event ‘multiplier’, the successive rounds of economic injections into the area of interest that occur after the initial direct expenditure. There exists a large body of literature regarding the selection of the appropriate multiplier to use in the calculations of indirect impact, with the general consensus being that the key determining factor is the size of the area of interest (both in terms of population and land mass)(see, for example, Baaijens & Nijkamp, 2000; Greenberg et al., 2002; Shahidsaless et al., 1983). Finally, the total economic impact of the industry or event is simply obtained by the summation of the net direct and indirect impact figures (Snowball, 2008).

Much like a financial balance sheet statement, studies of economic impact result in the derivation of a simple ‘bottom line’ monetary figure. This permits a comparison with other industries or events that can be easily understood by a variety of stakeholders, potential investors or funders. As well as providing a simple measure of economic impact, such studies also provide additional information to management and marketing teams as to how resources can best be allocated in order to improve an industry or event (both in terms of financial gains and general composition).

When applied to a specific cultural industry, EIS attempt to determine the financial interrelationships (both from a monetary and employment standpoint) between the cultural industry and the rest of the economy. In the case of a cultural event (such as an arts or writers festival), the aim of a EIS is to compare spending in the area of interest, with and without the event, in order to determine its impact and viability. Sánchez et al. (2016, p.2) suggest that EIS of cultural industries or events “seek to estimate the economic importance of the arts and to explore activity flows and the income linked to the existence of a given cultural expression.” Madden (2001, p.162) posits that the popularity of

EIS in the cultural context is evidenced by “any survey of advocacy documents and websites of arts councils, arts endowments and other major arts advocates.”

While there is no doubting the popularity of EIS as a tool to value cultural industries and events (Seaman, 2011), their potential shortcomings have been well documented. The reliance on a valuation method that fails to account for the very characteristics which make cultural goods so unique in the first place has the potential to do more harm than good in the long run. In seminal work on the topic Seaman (1987, p.746) argues: “arts proponents [...] are involved in a dangerous game when they resort to impact studies. In a sense, they are choosing to play one of their weakest cards while holding back their aces.”

As documented at length in this chapter, cultural goods are said to be imbued with certain non-private benefits which can be said to generate positive externalities, and consequently, consumer surplus. Such characteristics are associated with market failures and provide a justification for the funding of cultural industries as a public or merit good.

However, with its focus on the private good aspects of cultural industries and events, EIS provides no insight into the extent or existence of such market failures. While the non-market value generated by such industries and events could, at least in principle, be estimated and added to the other economic benefits to give a total economic value, such extensions are rare. Throsby (1994, p.25) suggests that EIS have instead “tended to focus on direct expenditure and their multiplier effects, rather than on genuine instances of market failure that might warrant government intervention.” On a similar note, Madden (2001, p.164) argues “their confinement to financial variables also sets a fundamental limit to the use of economic impacts in the policy arena, particularly social policy, which is customarily concerned with more than money.”

Aside from shortcomings relating specifically to the cultural nature of the event or industry in question, more fundamental issues relating to the use of EIS have been raised. Crompton et al. (2001) note that the reduction of a

series of complex economic interactions into a single, quantifiable ‘bottom line’ often requires a plethora of competing procedures and assumptions to be put in place by the researchers undertaking such studies. With this in mind, the temptation to view the results of EIS as objective and unequivocal should be resisted. Rather, EIS can be considered as something of an inexact science - with differing procedures and underlying assumptions leading to wildly differing results. On a more ominous note, the ability for the researcher to determine these procedures and underlying assumptions leaves open the possibility that the results of EIS may be manipulated to match up with a predetermined desired outcome.²⁷ To this end, Crompton et al. (2001) note:

While many [economic impact studies] are done with integrity, there are also, unfortunately, numerous examples of authors who have yielded to the temptation to adopt inappropriate procedures and assumptions to generate high economic impact numbers that will position an agency more favourably in the minds of taxpayers and elected officials. (p.80)

Despite these warnings, the use of EIS to value cultural industries and events remains prevalent. Snowball (2008, p.34) notes that “arts organisations and practitioners have shown little interest in non-market valuation methods [...] and a growing reliance on economic impact data as a means of arguing for public and private sponsorship.”²⁸ A comprehensive review of early examples of EIS in the cultural sphere is offered by Snowball (2008). Recent contributions to the literature include Murillo Viu et al. (2008) who attempt to quantify

²⁷Oft-cited ways of exaggerating the results of EIS involve the inclusion of local residents, ‘time switchers’ and casuals into the direct impact calculus, despite the fact that expenditure from each of these groups is not likely to be a direct result of the industry or event under examination.

²⁸Alternative revealed preference valuation methods, such as the travel cost method (which measures the amount users pay to attend a particular site or event), have become increasingly popular (see, for example, Tourkolas et al., 2015). Such methods, however, still focus on the private good characteristics of the cultural event or industry in question and say little with regards to non-market value.

the impact of heritage tourism. The authors conclude that the total economic direct and indirect effect of visitor turnover on the city of Granada, Spain (home of the Alhambra and Generalife Monumental Complex, a UNESCO World Heritage Site) was in excess of €450 million in 2003 alone. Çela et al. (2009) also look at the economic impacts of heritage tourism, examining the Silos and Smokestacks National Heritage Area in Northeast Iowa. The authors suggest that heritage tourism has a significant impact on the area, contributing US\$103 million to the local economy, along with the creation of 1981 jobs in 2004. Bracalente (2011) evaluates the impact of the Umbria Jazz Music Festival, held each year in the city of Perugia in Italy. Finding that the 2007 festival alone generated an overall impact on the local economy of almost €2 million. Sánchez et al. (2016) explores the impact of Holy Week on the city of Palencia in Spain, suggesting that the cultural event generated a total of €2.258 million, of which 82% remained in the local economy.

One alternative to EIS that is more amenable to the incorporation of non-market characteristics is the contingent valuation method. Therefore we turn our attention to this particular method of valuation.

3.5.2 Contingent valuation methods

The contingent valuation method (CVM) is a simple, flexible valuation method that is capable of incorporating the non-market (public and merit) characteristics of goods. Contingent valuation (CV) studies select a representative sample of individuals from a general population of interest. Valuation figures can then be elicited by directly questioning individuals about their willingness to pay (WTP) for a good or service, or their willingness to accept (WTA) a reduction in a good or service that is already being provided. Alternatively, the CV question can take the form of a dichotomous choice (that is to say, a ‘yes’ or ‘no’

response to a specified dollar amount).²⁹ Hoyos and Mariel (2010) note that dichotomous choice CV studies with a majority voting provision rule are now a widely accepted policy making tool due to their incentive compatibility (i.e. the respondent is forced to reveal their true preferences) and their simplification of the cognitive task presented to respondents.

The stated preference nature of CVM permits the construction of hypothetical or simulated market scenarios.³⁰ This valuation technique therefore allows for a greater level of flexibility than its revealed preference counterparts as it permits the estimation of non-use values. Once completed, data from CV surveys can be econometrically analysed, and WTP/WTB figures for the general population can be calculated.

The CVM is well represented in a variety of economic sub-disciplines.³¹ The valuation methods' ability to incorporate non-market characteristics renders it particularly useful in environmental matters, such as environmental impact assessments and cost-benefit analysis, seminal works on which include Cummings et al. (1986) and Mitchell and Carson (1989). CVM have also been used extensively in health economics, a review of which is offered by Bayoumi (2004).

In the realm of cultural economics, CVM have a rich history. The first study that attempted to measure the WTP for the perceived public good value of the arts was conducted by Throsby and Withers (1983). In this research the authors survey over 800 residents of Sydney, asking questions about the extent of the non-market benefits they derived from government subsidised

²⁹The dichotomous choice CVM was first introduced by Bishop and Heberlein (1979) who examined indirect valuation methods for goose hunting permits in Wisconsin.

³⁰That is to say, in the absence of a market for a good (and therefore a price in exchange), a CVM simply asks what respondents would be prepared to pay *if* a market existed.

³¹The CV method can be traced back to Ciriacy-Wantrup (1947) who suggested that a farmers' soil conservation practices led to the generation of 'extra market benefits', and that the wider community's WTP for these benefits could potentially be captured by via a survey instrument. The first empirical estimation using the CVM was carried out by Davis (1963) who estimated the benefits of big game hunting in Maine, USA.

arts programs in Australia. In finding that just under 75% of respondents supported increased arts subsidies (at a much higher rate than the prevailing funding at the time) the authors concluded: “the notion of the arts as a luxury and as only an elite pleasure foisted on an unknowing or resentful public is simply wrong” (Throsby & Withers, 1983, p.26). Since this seminal work, CVM have been applied to a wide range of cultural industries. In the case of theatre, Hansen (1997) found significant non-use values of the Royal Theatre in Copenhagen, despite the fact that only 7% of the population made use of the venue. Sanz et al. (2003) conducted a CV study of the National Museum of Sculpture in Valladolid, Spain, finding a willingness to contribute to the preservation of the museum. On a similar note, a CV survey of visitors to the British Museum by Maddison and Foster (2003) found a WTP to avoid ‘crowd congestion’ at popular exhibits on display. A great deal of work has also been carried out on the CV of heritage sites and historical areas. Dutta et al. (2007), for example, conduct a CV study of Princep Ghat in Calcutta, India and demonstrate a substantial WTP amongst visitors to conserve this cultural site.

Not unlike economic impact studies, CVM have been subject to a fair amount of criticism from certain parties. The most common criticism concerns what is known as the ‘free rider’ problem. When presented with a hypothetical payment scenario, with no credible way of collecting the proposed payment, respondents may overstate their WTP for goods. Another issue regarding CVM relates to what is commonly known as embedding, or scope, effects. Kahneman and Knetsch (1992), for example, suggest that there could be large variations in WTP valuations of the same good or service depending upon whether or not the good or service is valued on its own, or as part of a larger set. Others (see, for example, Shogren et al., 1994) note that there is often a sizeable disparity between a respondent’s WTP to avoid a decrease in some good or service and their WTA compensation for a decrease in the same good or service. Venkatachalam (2004) notes that such disparities could be caused by a variety of reasons, including substitution effects and the fact that a respondent’s WTP

for a good or service is (in theory) bounded by their income, while WTA has no such constraint.³² Low response rates and poorly designed survey instruments also have the potential to bias contingent valuations (see, for example, Bennett & Blamey, 2001).

As discussed, cultural goods have the potential to possess both public and private good characteristics. With this in mind, contingent valuations are often said to suffer from a ‘mixed good bias.’ This bias refers to the fact that it is often difficult for respondents to distinguish between non-market and financial benefits of a good or service when making their valuation decisions. On a similar note, it is pertinent to highlight that the accuracy of CVM relies heavily on the quality and nature of the information provided to the respondent at the time of the survey. Bergstrom et al. (1989) found that WTP results could be both increased and decreased depending upon how information was presented to respondents as they make their valuation decisions. Furthermore, Mitchell and Carson (1989) and Portney (1994) both find that WTP was also heavily influenced by the way in which valuation figures were elicited from respondents. As we have noted, a unique characteristic of cultural goods is that taste for them is said to be acquired over time. Demand can therefore be said to be dynamically unstable, predicated on past consumption habits. To this end, Throsby (2003, p.277) notes “if these demand conditions do indeed obtain, it can be suggested that CVM will not be able to provide fully-informed WTP estimates for cultural goods.”

Further complicating matters is the fact that cultural goods are also often said to possess an intrinsic value that exists outside of any monetary framework.³³ If the value of such goods exists above and beyond any individual

³²A host of other reasons for the WTP/WTA disparity have also been put forward. One popular example relates to Kahneman and Tversky’s (1979) prospect theory, a behavioural model which shows that respondents dislike potential losses more than any equivalent potential gains.

³³Kagan (1998, p.278) notes, “if [an] object’s intrinsic value is had independently of all other objects, that value cannot depend at all upon any of the relational properties of the object; rather its intrinsic value must depend upon the intrinsic properties of the object

evaluation (take Picasso's *Guernica* as an extreme example), then any WTP measure, or even market price, would be rendered meaningless. Throsby (2003, p.279) suggests that the appraisal of goods that carry such intrinsic values "cannot be plausibly represented in monetary terms, no matter how they might be assessed."

At face value, the incorporation of non-market and non-use valuations facilitated by CVM seems to offer a marked improvement over economic impact studies when it comes to the task of valuing cultural goods. However, CVM remain a rather blunt valuation instrument. Unfortunately, even the most advanced CVM that attempt to account for some of the methodological issues and biases outlined above are still ultimately prone to undervaluing cultural goods and services.³⁴

Attention is therefore turned to the application of discrete choice analysis to cultural goods. As discussed in Chapter 2, discrete choice analysis steps outside the neoclassical framework, thereby permitting much more nuanced inferences regarding consumer choice of individual goods to be made (as opposed to the focus on entire cultural industries and events common in EIS and CVM). While discrete choice analysis can be seen in many ways to be a natural extension of CVM due to the stated preference nature of each method, it is posited that the flexibility of discrete choice analysis renders it a much more appropriate methodological tool with which to examine cultural goods than the valuation techniques presented thus far.

alone."

³⁴An interesting extension to conventional economic impact and contingent valuation studies is, however, offered by Seaman (2006) who examines the complementarity of EIS and CVM results and the potential relationship between the two approaches.

3.5.3 Discrete choice analysis

Bennett and Blamey (2001) and Hanley et al. (2001) note that DCA was spurred (at least in part) as a response to the problems associated with CVM discussed above. With this in mind, a number of researchers (see, for example, Adamowicz et al., 1998) have pointed to several distinct advantages that models of discrete choice hold over contingent valuations, such as:

- Analysis via discrete choice permits the identification of the value of the individual attributes of a good or service. This renders such analysis particularly amenable to account for situations where trade-offs between similar, multi-dimensional, goods and services are of interest. DCA is therefore able to measure the value of marginal changes in a given good or service, as opposed being restricted to the evaluation of situational changes (such as a simple increase or decrease in the provision of the good or service in question) that is the hallmark of CVM.
- The nature of DCA (which presents respondents with a range of choices between competing alternatives with varying attributes) gives respondents multiple opportunities to express their preferences for a particular good or service. CV studies, on the other hand, usually only permit a single all-encompassing valuation decision thus limiting the amount of information provided to the researcher.
- Arguably the most important advantage that DCA is said to have over CVM is the fact that models of discrete choice do not explicitly require a respondent to state their WTP for a good or service. Rather, WTP figures are indirectly calculated from analysis of respondents repeated choices over a variety of payment amounts. The inferred nature of WTP figures derived from DCA means that such valuations may avoid some of the biases associated with CV studies that were outlined earlier.³⁵

³⁵For example, Willis and Garrod (1999) found that utilising DCA as opposed to CVM to

Pioneering work on the application of DCA was conducted by Louviere and Hensher (1983), who used choice experiments to forecast attendance at a proposed bicentennial event in Eastern Australia.³⁶ In this experiment, individuals were given an array of hypothetical bicentennial events to choose from, with each event containing a variety of different attributes (such as the type of exhibits on offer, the inclusion of amusements, the availability of food and drink and, the price of attending). Socio-demographic information for each experiment participant was also collected. Via a multinomial logit model the authors predicted consumer demand for various groups of people. It was found, for example, that younger people were more enticed by the availability of food and drink, while older people preferred cultural exhibits, rather than technical ones.

Since the seminal work of Louviere and Hensher, choice experiments have been applied to wide range research topics. Market research remains one of the most fertile grounds for its application (see, for example, Gilbride & Allenby, 2004; Gupta & Chintagunta, 1994; Kamakura & Russell, 1989), though there have been a number of applications in other fields, such as transportation (Henscher, 1994; Swait and Ben-Akiva, 1987a, 1987b) and tourism (Correia et al., 2007; Lindberg et al., 1999). Models of discrete choice are also becoming increasingly popular in both environmental economics (Adamowicz et al., 1994, 1998; Bennett and Blamey, 2001; Bennett et al., 2016; Boxall et al., 1996; Rolfe and Bennett, 1996; Scarpa & Thiene, 2005; Scarpa et al., 2007) and health economics (Payne & Elliott, 2005).

Stated preference discrete choice experiments are not, however, immune to criticism. The hypothetical nature of the choices presented to respondents may lead to a variety of biases being present in results. The reliability of stated preference experiments therefore hinges upon respondents be willing

value the benefits to anglers of low-flow alleviation programmes in seven UK rivers resulted in a decrease in free riding and strategic bias.

³⁶It is worth noting at this point that, as is standard practice in the literature on this topic, the terms discrete choice analysis and discrete choice experiment (or simply choice experiment) are used interchangeably in this thesis.

and able to reveal their true preferences via a series of well constructed choice tasks. Kjaer (2005) notes that many of the issues that plague the reliability of CVM (such as embedding and scope effects and a variety of other incentives to misrepresent responses) could also bias the results of a poorly constructed discrete choice experiment. Other possible limitations include the potential for availability bias (the idea that respondents preferences are influenced by the public awareness of the task at hand), range bias (the suggestion that results are highly influenced by the attribute levels presented to respondents), information bias (the risk that respondents are not given enough information to make informed choices) and framing effects (the acknowledgement that respondent are particularly sensitive to the way a choice is presented to them).

While WTP valuation methods such as CV studies can be used to demonstrate that cultural goods and services generate non-market benefits, as Snowball (2008, p.178) notes, “there is a great need for a more detailed analysis of the valuation of such goods, both in terms of the specific attributes that make up the good and their value to different population groups.” As has been documented, cultural goods and services carry with them a cultural value that has the potential to accrue above and beyond that of their price in exchange. Furthermore, consumer choice for such goods is governed by other factors that influence demand (for example, the experiential nature of the good, along with the role of taste development and technological change) that neoclassical valuation methods (despite their popularity) fail to take into account.

To date there have been limited applications of DCA in the field of cultural economics. Snowball (2008) reviews cultural economists’ early forays into the world of choice experiments. As discussed in Chapter 1, this early work was primarily concerned with the evaluation of heritage sites (Boxall et al., 2003), museums (Mazzanti, 2003) and cultural events (Louviere and Hensher, 1983; Snowball and Willis, 2006a, 2006b). Other applications include Prieto-Rodriguez and Fernandez-Blanco (2000) who analysed the differences between the consumption of classical and pop music amongst Spaniards, finding evidence

of omnivorous listening behaviour. Favaro and Frateschi (2007) investigate the choice of musical genres amongst Italian consumers, finding that age, gender and education are important predictors of omnivorous musical taste. Willis and Snowball (2009) examine the impact of a variety of performance attributes on demand for South African theatre. Grisolia and Willis (2011) also examine the demand for live theatre via a stated preference discrete choice experiment, revealing that positive reviews and word of mouth are particularly important determinants of choice. Choi et al. (2010) conduct a stated preference discrete choice experiment on visitors to the Old Parliament House Museum in Canberra, Australia, discovering that the presence of retail and café facilities are amongst the most positively valued museum attributes.

As alluded to earlier, the discrete choice experiment environment can also be used to examine heterogeneity among the consumers of a particular good or service via the use of a latent class model (LCM) (Wedel & Kamakura, 2000). LCMs assume that the population consists of a finite and identifiable number of endogenously determined groups, with each group being characterised by relatively homogeneous preferences. Membership of a particular group is considered to be probabilistic, based on a desire for particular attributes of a good, socio-demographic characteristics, or a combination of both.³⁷ To date there have been an extremely limited number of applications of LCMs to cultural industries. Van Reese et al. (1999) use a LCM to examine the links between social status, taste, cultural classification and the amount of reading in leisure time one completes. Boter et al. (2005) develop a LCM and demonstrate that there are segments of museum patrons that differ in their willingness to travel. Chan and Goldthorpe (2007a, 2007b) use a LCM approach in order to distinguish between types of music and visual arts consumers. Pulido-Fernandez and Sanchez-Rivero (2010) use a latent segmentation approach to study the influence of socio-demographic variables on a consumer's predisposition to choose 'cultural tourism.' Finally, Grisolia and Willis (2012) investigate different market segments for theatre demand using a LCM, with an application to

³⁷A more detailed examination of the theory behind LCM is presented in Chapter 4.

regional theatre in North East England.³⁸

3.6 Limitations of existing discrete choice applications

The flexibility of discrete choice models permits the creation of attributes that directly align with the traits and characteristics that make cultural goods unique, as well as permitting the incorporation of individual consumer characteristics which are thought to play a vital role in a consumer's choice of such goods. All told, the application of this modelling technique to a range of cultural industries should permit a greater understanding of the determinants of demand for cultural goods.

As discussed, however, such applications remain relatively scarce. Furthermore, it is argued that existing applications of discrete choice models to cultural goods are ad hoc in their nature and often fail to capture all of the attributes that make cultural goods unique. In order to highlight this proposition, Table 1 presents a list of attributes utilised in existing cultural good choice experiments. It is noticeable that many of the studies on this list incorporate attributes pertaining to a good's experiential nature and the role of taste development.³⁹ However, existing attempts to model the consumer choice of cultural goods using discrete choice analysis suffer similar limitations to many of the contingent valuation studies we examined earlier. Specifically, they fail to incorporate the cultural nature of the good in question explicitly in their modelling strategy. Existing applications of discrete choice analysis to cultural goods are therefore similar to those that would be applied to experience goods. As noted earlier in this chapter, while it is indeed true that the majority of cultural goods are, by their very nature, experience goods, the reverse cannot

³⁸Preference heterogeneity can also be captured via other modelling techniques. Apostolakis and Jaffry (2005), for example, use a mixed logit model in order to examine tourists' preferences for two Greek heritage attractions.

³⁹The addition of a monetary attribute (such as price) is also common to discrete choice models as it permits the calculations of willingness to pay. See Chapters 4 and 7 for a more detailed explanation of this process.

be said to be true.

With this in mind, it is proposed that the development of an analytically tractable discrete choice model that incorporates *all* of the unique characteristics that typify cultural goods is required. By carefully distinguishing between the cultural and experiential nature of a good and incorporating this distinction into the modelling process, it is hoped that we will be able to shed new light regarding a consumer's valuation of such attributes. All told, the general model will hopefully steer researchers away from the relatively ad hoc nature of existing studies and provide a richer, more nuanced understanding of the determinants of demand for goods that exhibit both cultural and experiential characteristics.

3.7 Chapter summary

The researcher tasked with examining the determinants of demand for cultural goods faces some unique challenges. Such goods are said to embody a cultural value, distinct from its economic value as determined by the price in exchange. The challenge therefore becomes how best to distinguish between monetised value in terms of what people are willing to pay and the notion of an 'intrinsic' value (in our case driven by the presence of a cultural value) that lies above and beyond market prices. Analysis is further complicated by the experiential nature of cultural goods, along with issues relating to taste development and technological change. Despite efforts to unpack cultural value into component parts in order to better understand its influence on consumer choice, most noticeably championed by Rizzo and Throsby (2006), the incorporation of cultural value into the economic calculus remains extremely rare. To this end, the two most prominent methods of valuing cultural goods (economic impact studies and contingent valuations) both struggle to capture the traits of a cultural good that separate them from everyday market goods.

Table 1: Attributes used in existing cultural good choice experiments

Author(s)	Cultural context	Attribute(s) used in study
Louviere & Hensher (1983)	Cultural exposition	Type of exposition Price Location Crowd size Travel time Word of mouth
van Reese et al. (1999)	Reading in leisure time	Genre of material read
Prieto-Rodriguez & Fernandez-Blanco (2000)	Music	Genre of recorded music listened to
Boxall et al. (2003)	Heritage sites	Pictograph quality
Mazzanti (2003)	Museums	Price Conservation level Access policy Additional services
Boter et al. (2005)	Museums	Travel time
Snowball and Willis (2006a, 2006b)	Arts festivals	Main or fringe event Price
Chan and Goldthorpe (2007b)	Music	Type of exhibitions Genre of recorded music listened to Genre of live concerts attended
Chan and Goldthorpe (2007a)	Visual arts	Propensity to visit other cultural outlets

Table 1: continued

Authors	Cultural context	Attribute(s) used in study
Favaro and Frateschi (2007)	Music	Genre of live concerts attended
Willis and Snowball (2009)	Theatre	Cast professionalism Reputation of director Reputation of play Context of play Genre of play
Choi et al. (2010)	Heritage sites	Access policy Type of exhibitions Programs on offer Additional services Funding (price proxy)
Pulido-Fernandez and Sanchez-Rivero (2010)	Cultural tourism	Presence of cultural outlets
Grisolía and Willis (2011, 2012)	Theatre	Price Reputation of play Word of mouth Author Genre of play Repertory classification Venue

Note: As is customary with models of discrete choice, each of the studies listed also incorporated a variety of socio-demographic characteristics into their analysis.

The application of discrete choice models to cultural goods does, however, offer a relatively new way of analysing how consumers make their demand decisions. While applications of DCA in the cultural context have certainly advanced our understanding regarding the determinants of demand for cultural goods, a theoretical model and related empirical applications that incorporate both the cultural *and* experiential nature of such goods remains elusive.

Attention is therefore turned to Chapter 4 and the development of an analytically tractable general model of demand for cultural experience goods. This model will utilise a discrete choice framework to incorporate both the cultural and experiential aspects of a good (along with a suite of other characteristics known to influence the demand for such goods), thus providing the theoretical framework with which to empirically examine the determinants of demand for any given cultural experience good category.

4 A general model of demand for cultural experience goods

Keeping in mind the unique characteristics of cultural experience goods discussed in Chapter 3, it is now time to formulate a general model of demand for such goods. This theoretical framework will provide the foundation upon which we can empirically examine the determinants of demand for a given category of cultural experience goods. As discussed, in order to gain a better understanding of cultural experience good consumption the model should incorporate both the cultural *and* experiential nature of the good, something that has been lacking in the existing literature.

It has been proposed (first in a general sense in Chapter 2 and then with cultural goods in mind in Chapter 3) that in order to gain a richer understanding of choice within a particular product category, one must turn to a discrete choice modelling approach. The general model proposed here is therefore underpinned by a discrete choice framework, which permits the analysis of the cultural and experiential nature of the good at an attribute level, along with the incorporation of socio-demographic characteristics and prior consumption habits. All told, the results of this modelling strategy should give researchers a much deeper understanding of cultural experience good choice than existing methodologies.

This chapter begins by stating the indirect utility function around which the general model will be developed. The discrete choice model is then formally introduced, thus enabling the development of a number of hypotheses relating to the determinants of demand for cultural experience goods. These hypotheses are structured to align with each of the unique consumption characteristics we introduced in Chapter 3. Specifically, we examine the cultural and experiential nature of such goods, along with issues relating to genre, taste development and technological change. Each hypothesis will then be empirically tested later

in the thesis.

4.1 Setting the scene

Stating a general indirect utility function we assume:

$$V_{ic}(S_{ic}, CN_c, X_i, X_c) \tag{1}$$

where V_{ic} is the utility of individual i derived from cultural experience good c . S_{ic} is a measure of taste that individual i has developed for cultural experience good c . CN_c is a measure of the cultural nature of cultural experience good c . X_i is a suite of commonly used socio-demographic variables that are known to influence the consumption of cultural experience good c (such as age, gender, income, education and the like). Finally, X_c is a suite of ‘non-cultural’ qualities of cultural experience good c that are known to influence consumption, such as the genre of the good, an indicator of its quality (for example, positive critical acclaim or word of mouth) or the goods own price and the prices of substitutes or complements.⁴⁰

Each cultural experience good c belongs to a specific category of cultural experience goods CT , such as books, music, films and the like (that is to say: $c \subseteq CT$).⁴¹

⁴⁰This suite of ‘non-cultural’ qualities X_c can be used to overcome some of the issues associated with the consumption of experience goods, as will be discussed later in this chapter.

⁴¹In the case of books, for example, the model could be used to examine broad categories such as literary fiction, genre fiction, literary non fiction and general non fiction. Alternatively, this model gives the researcher the flexibility to impose a narrower categorical definition such as romance, mystery or horror to develop a richer understanding of consumer choice for specific book genres.

4.2 The discrete choice modelling approach

Before building upon the utility function established in equation 1 and developing a series of hypotheses with regard to cultural experience good consumption, we must first formally introduce a discrete choice experiment as the chosen empirical framework and lay down the theory behind this modelling approach. As discussed in Chapters 2 and 3, it is posited that discrete choice experiments are particularly suited to modelling consumer choice for cultural experience goods as they permit the examination of consumption characteristics that lie outside the scope the neoclassical framework used to model demand determinants. Furthermore, a consumer's decision to purchase a particular cultural experience good can logically be considered discrete. A person looking to attend an opera, for example, will make a single choice from the finite set of alternatives available to them on the date on which they would like to attend as they are unable to attend more than one performance at a time.

Discrete choice experiments depict a good as a collection of attributes (that is to say, distinct characteristics of the good). A film, for example, could be said to have attributes that pertain to genre, length, critical acclaim and the like. Each of these attributes can then be expressed as a variety of values, known as levels. By varying these attribute levels the researcher can create different bundles of goods, known as alternatives, which are presented to respondents in small groups known as choice sets.⁴² In a basic choice experiment respondents are then asked to choose their preferred alternative.⁴³ Observing a repeated series of such choices permits inferences regarding preferences for each alternative, attribute and attribute level to be made, on both an individual and aggregated basis. A formal definition of discrete choice experiments will

⁴²While a great many alternatives may be generated from the process of varying attribute levels, the amount presented to respondents at any one time is usually quite small (typically between 4 and 6). This prevents cognitively over-burdening respondents, which may bias results.

⁴³As well as the choice of a single preferred alternative, respondents can also be asked to rank alternatives from most preferred to least preferred (commonly known in the literature on the topic as 'best-worst' scaling).

now be presented.

As discussed, discrete choice models are based on Lancaster's (1966) random utility theory (RUT). RUT proposes that the utility accruing to an individual consumer of any good is derived from the attributes (that is to say, the characteristics) of the good in question, subject to some error term. Individuals are assumed to face a choice set CS which contains $C > 1$ alternatives. Specifically, an individual i receives utility U from choosing alternative c amongst a set of these mutually exclusive alternatives C .⁴⁴ Individuals are considered rational, and therefore choose the alternative that maximises their utility. The utility derived from alternative c can be broken down into V , the observable component, and an unobservable random error ϵ term as follows:

$$U_c = V_c + \epsilon_c \quad (2)$$

We can define a choice set CS consisting of (for simplicity) only two alternatives, namely to either purchase alternative c , or not:

$$CS_c = \{buy_c, nobuy_c\} \quad (3)$$

therefore we can write the choice probability to purchase alternative c as:

$$P(buy_c|CS_c) = Prob[V_{buy_c} + \epsilon_{buy_c} \geq V_{nobuy_c} + \epsilon_{nobuy_c}] \quad (4)$$

⁴⁴In the language of choice experiments an alternative is simply one of a number of 'versions' of a particular good (or service) on offer. Therefore we continue with the use of c here to denote individual cultural experience goods first introduced in equation 1.

Following RUT the observable component V_c can be broken down into the sum of the product of each attribute k multiplied by its weight β :

$$U_c = \beta_0 + \beta_1 x_{11} + \beta_2 x_{12} + \dots + \beta_k x_{1k} + \epsilon_c \quad (5)$$

Given that ϵ is unobserved, the exact shape of the distribution over the population cannot be known. Different assumptions about the shape of ϵ result in different econometric model forms. The most common assumption is that ϵ follows an extreme value type 1 (EV1) distribution which assumes disturbances are independent and identically distributed (IID). McFadden (1973) demonstrated that, for linear indirect utility, the probability that individual i chooses alternative c from choice set C is:

$$P_{ic} = \frac{\exp(\beta' x_{cK})}{\sum_k \exp(\beta' x_{cK})} \forall c, k \in C \quad (6)$$

This is a simple multinomial logit model (MNL). In a MNL model the estimated parameters β are fixed amongst the population. This is akin to assuming that there are no differences in individuals' preferences across the population. While a convenient form, this assumption of homogeneous preferences across all consumers places obvious limitations on the usefulness of the MNL in certain choice settings.

To allow for differences in preferences, a mixed logit (ML) model can be employed. A ML model permits the estimated parameters β to vary across respondents thus allowing for random variations in tastes. Following Train (1998), utility can therefore be expressed as:

$$U_{ic} = \tilde{\beta}_i x_{ic} + \epsilon_{ic} \quad (7)$$

The utility function of each individual now contains a random taste parameter $\tilde{\beta}_i$ with values that are dependent upon the underlying distributions $f(\beta|\theta)$. In a ML model β_i is not known by the researcher, therefore the probability of individual i choosing alternative c is restricted to a particular value of β :

$$P_{ic} = P_{ic}(\beta)P(\beta = b) \quad (8)$$

ML models assume a continuous distribution on the random parameters. An alternative to this is a latent class model (LCM) which uses discrete distributions to define the underlying latent structure of preferences. In a LCM there exists a number of classes that describe the specific role of the alternatives attributes up to a probability of class membership for the population. In a LCM model, choice probability can therefore be expressed as:

$$P_{ic} = \sum_{q=1}^Q \pi_q P_{ic}(\beta_i) \quad (9)$$

where Q is the number of latent classes in the population (which can be thought of as an indication of consumer heterogeneity), and π_q represents the probability of belonging to such a class. π_q can be further broken down as follows:

$$\pi_q = \frac{\exp(\gamma'_q Z_i)}{\sum_{q=1}^Q \exp(\gamma'_q Z_i)} \quad (10)$$

where Z_i is a vector of segmentation variables consisting of individual socio-demographic and product characteristics and γ_q is a vector of parameters for the latent class q ($q = 1, 2, \dots, Q$).

Within each latent class, the parameters and choice probabilities are assumed to be generated by simple MNL models,⁴⁵ equation 10 can therefore be expressed as:

$$P_{ic} = \sum_{q=1}^Q \pi_q \left(\frac{e^{b_q x_{ic}}}{\sum_c e^{b_q x_{ic}}} \right) \quad (11)$$

Hensher et al. (2015) note that when one observes repeated choices s from an individual respondent (that is to say, a panel data format) the probability of observing a particular sequence of choices made is being modelled, represented by the product of the choice probabilities as follows:

$$P_{ic} = \sum_{q=1}^Q \pi_q \prod_{s=1}^S \frac{e^{b_q x_{ic}}}{\sum_c e^{b_q x_{ic}}} \quad (12)$$

Upon estimation of the LCM, each individual respondent is assigned to a latent class based upon their largest probability. As a result, the size of each class, along with the profile of consumers contained within each class, can be

⁴⁵Although recent extensions have allowed for the possibility of ML class specific models.

obtained.

4.3 The determinants of demand for cultural experience goods

We are now ready to formulate our general model of cultural experience good consumption. Specific hypotheses regarding the relationships between the unique characteristics of cultural experience goods and consumer choice will be formulated, ready for testing via the discrete choice experiment framework in subsequent chapters.

A discrete choice experiment is made up of four key elements: the decision maker, the alternatives, the attributes of the alternatives and the decision rule. In the case of cultural experience good consumption (as is common amongst the majority of choice experiments) the decision maker is simply the individual consumer of the goods in question. In our model, the alternatives presented take the form of different consumption formats of a single cultural experience good category, along with a no choice alternative should the respondent not find any of the options presented to them appealing.⁴⁶ For example, in the case of books the alternatives utilised could take the form of paperback books, hardback books, ebooks and audiobooks. Alternatively, if the demand for music was under examination, the alternatives could be taken from options such as vinyl records, compact discs, audio file downloads or streaming services such as Spotify.

The utilisation of consumption formats as alternatives in our choice sets has two distinct advantages over the more common use of individual cultural experience goods (such as specific book or music titles). Firstly, the introduction

⁴⁶As noted by Carson et al. (1994) the inclusion of a ‘no choice’ alternative may enhance the realism of the choice task by making the set of alternatives similar to a market decision. The presence of a ‘no choice’ alternative also permits the estimation of an alternatives market share as a respondent’s choice is not conditional upon the alternatives presented.

of new consumption formats is driven by technological change in a particular cultural industry (for example, the rise of ebooks in the book industry, or services such as Spotify in the music industry). With this in mind, any analysis of alternative choice in a given discrete choice experiment becomes, by design, an analysis of how consumers respond to technological change (akin to the introduction of new alternatives) in a given cultural industry. Examination of the interplay between consumption formats and the given attributes therefore becomes of particular interest to the researcher.

The second advantage of utilising consumption format as the alternative in our discrete choice framework is more practical in nature. The number of consumption formats on offer to consumers in any given cultural experience good category is a great deal smaller than the number of individual titles on offer in the same category.⁴⁷ Utilising consumption formats therefore yields generalisable results (that are not conditional upon the researchers choice of titles) and makes it easier to keep the *discrete* in *discrete choice* experiments, and maintain the integrity and realism of the choice that the consumer is faced with.

In the experiment's current form, the respondent need only be made aware of what is meant by each consumption format and attribute on offer. The inclusion of individual titles as alternatives in the choice experiment would mean that the respondent must have consumed (either some or all) of the good in question, or at a minimum be educated about its content in some way before attempting the choice task.⁴⁸ This would greatly increase the burden

⁴⁷The use of specific formats as alternatives renders this a labelled choice experiment (that is to say, the alternatives convey meaning to the respondents beyond the order in which they are shown) thus permitting the derivation of market shares forecasts and elasticities for each format. It would also be possible to design and implement an unlabelled choice experiment by specifying the format of the cultural good as one of the attributes of the goods, however in doing so one loses the ability to derive elasticities for each alternative (Hensher et al., 2015). Blamey et al. (2001, p.138) also note that the use of labelled choice experiments accommodates the expectations and experiences of respondents.

⁴⁸In the case of books, for example, a respondent would be required to have read at least part of the text or its 'blurb' in order to be able to make a purchasing decision.

(both from a time and cognitive perspective) on the respondents and has the potential to increase the cost of the experiment along with reducing the sample of completed responses.

Finally, a decision rule is the process by which the individual makes a choice between the alternatives in the choice set. In economics the decision rule is generally assumed to be that of utility maximisation. Within this thesis we will follow that convention.

4.3.1 Taste development

The incorporation of taste development into models of consumer choice is by no means a new phenomenon. Indeed, the two schools of thought that dominate such attempts both date back a number of decades. Firstly, the theory of rational addiction developed by Stigler and Becker (1977) and later extended by Becker and Murphy (1988) posits that an individual's utility from consuming good c is dependent upon some measure of past consumption of similar goods, represented as a stock of consumption capital. In our notation this corresponds to the taste development variable S_c introduced in equation 1. Importantly, models of rational addiction depict each consumption experience as one that leads to an increase in S_c . Therefore every good consumed leads to an increase in utility for the quality-adjusted quantity of goods under consideration. In other words, there is a strictly positive relationship between consumption and taste development.

Lévy-Garboua and Montmarquette (1996) also attempted to incorporate taste development into their models of consumer demand. The authors suggest that consumers discover their tastes through repeated consumption experiences in a sequential process of unsystematic 'learning by consuming', where tastes are given but unknown. As opposed to the strictly positive relationship between consumption and taste development put forth by theories of rational addiction,

Lévy-Garboua and Montmarquette’s unsystematic cultivation of taste permits every new consumption experience to reveal to the consumer an unexpected positive or negative increment in their taste for the good in question. The increment is stochastic with an expected value of zero, thus allowing for the possibility of incorporating both pleasant and unpleasant surprises into models of consumer demand.⁴⁹

As alluded to in Chapter 3, the vast heterogeneity and experiential nature of cultural experience goods available to consumers render taste surprises and long learning periods a distinctive aspect of their consumption. With this in mind, allowing for the possibility of both positive and negative consumption experiences is particularly important when it comes to goods of a cultural nature. As Lévy-Garboua and Montmarquette (2011, p.180) note “it is certainly more realistic to assume that individuals widely differ in their taste for specific art forms than is implied by the pharmacological force of addiction.” Taste development in our model of consumer choice for cultural experience goods will therefore follow Lévy-Garboua and Montmarquette’s ‘learning by consuming’ approach and is defined as follows:

$$S_{c_t} = E_{t-1}(S_{c_t}) + \epsilon_{c_t} \text{ if } x_{c_t} > 0 \quad (13)$$

where S_{c_t} represents the developed taste for cultural experience good c at time t , which is anticipated before the decision is made to consume the good. E_{t-1} designates the expectation operator before period t ’s choice and ϵ_{c_t} is the ‘taste surprise’ experienced from consuming cultural experience good c in period t (as discussed: $E_{t-1}(\epsilon_{c_t}) = 0$). x_{c_t} is defined as a consumer’s consumption of cultural experience good c in period t .⁵⁰

⁴⁹On this matter Hutter (2011b, p.203) suggests a common characteristic of cultural goods is their newness to consumers, and this experience of newness “comes with the emotion of surprise: expectations are not met; they are either exceeded or disappointed.”

⁵⁰A comparison can be made here to models of rational addiction which state: $\epsilon_{c_t} > 0 \forall x_{c_t}$.

An individual who discovers that they have a taste for the particular category of cultural experience good in question will experience a series of pleasant taste surprises over time from each individual good in that same category ($\epsilon_{c_t} > 0$), thus revising their expectations of S_c upwards. In other words, consumers develop a taste for the particular category of cultural experience good in question CT , using the terminology of Lévy-Garboua and Montmarquette we say they ‘learn by consuming.’ Since an individual’s expectations of taste are dependent only upon their own past experiences of the specific category of cultural experience good, the expectations of taste one period ahead are no different from expectations as $t \rightarrow \infty$.

In their ‘learning by consuming’ model, Lévy-Garboua and Montmarquette assume subjective quality S_{c_t} is influenced by two factors; firstly, some measure of accumulated taste for the cultural experience good category; and secondly, the level of familiarity with the cultural experience good category. Therefore, following Lévy-Garboua and Montmarquette, we simply define our measure of taste development, in the form of subjective quality, as a function of two variables as follows:

$$S_c = g(T, F) \tag{14}$$

where T is a measure of accumulated taste for the cultural experience good category CT and F denotes the level of familiarity with the cultural experience good category CT . In this thesis, for reasons of simplicity, we will assume g to be a linear additive function. While it may be reasonable to propose that there exist interaction effects between T and F , or that one variable may well influence the other, such propositions are left for future research.

Accumulated taste T can be seen as a measure of taste diversity and knowledge dependent upon previous consumption experiences with the cultural

experience good category CT (recall that expectations in time t are conditional upon all the information available in time $t - 1$). The level of familiarity F is simply a measure of exposure to the cultural experience good category CT . Together, T and F can be viewed as a level of taste developed by an individual consumer for a particular cultural experience good category CT that is based upon a measure of total ‘surprises’ from past consumption.

It is now prudent to set forth just how our levels of accumulated taste and familiarity will be defined and quantified. Familiarity F with a cultural experience good category is formally defined as a function of both recent and long-term exposure to similar cultural experience goods.⁵¹ The division of our measure of familiarity into both recent exposure (for example, visits to the theatre in the past month, or the number of films watched in the past fortnight) and a long-term measure of exposure (for example, being encouraged to read as a child) permits a greater degree of flexibility when it comes to the examination of how taste for a particular cultural experience good category CT is developed.

In order to further develop our model we propose two broad categories of cultural experience goods: attendance goods and tangible goods. Attendance cultural experience goods are those goods for which the consumer receives no tangible product, but rather they experience the cultural good via a one-time-only live or pre-recorded performance. Thus the likes of seeing a play in a theatre or a band live in concert fall under the attendance cultural experience good category. Familiarity with attendance goods is therefore defined as:

$$F_c = h(att_{CT}, child_{CT}) \quad (15)$$

where att_{CT} is a simple count of attendance at events in the same cultural

⁵¹That is to say, goods from the same category CT .

experience good category CT during a given time period, and $child_{CT}$ is an indicator as to whether or not the respondent was exposed to the cultural experience good category CT as a child.

Tangible cultural experience goods are, on the other hand, those cultural goods that leave the consumer with a physical item that can be repeatedly consumed. Such goods would include books, music recordings and the like. Familiarity with tangible cultural experience goods is therefore defined as follows:

$$F_c = h(con_{CT}, child_{CT}) \quad (16)$$

where con_{CT} is a simple count of how many tangible goods from the given cultural experience good category CT have been consumed during a given time period, and $child_{CT}$ is an indicator as to whether or not the respondent was exposed to the cultural experience good category CT as a child.

In summary, measures of familiarity for both attendance and purchased cultural experience goods are both simple counts of attendance and consumption respectively, along with some indication of long-term exposure to these to these cultural experience goods categories. Accumulated taste T , on the other hand, is a measure of taste diversity and knowledge of a single cultural experience good category CT . Unlike our measure of familiarity, there is no need to distinguish between attendance and tangible cultural experience goods in this case, therefore accumulated taste is simply defined as:

$$T_c = l(know_{CT}, div_{CT}) \quad (17)$$

where $know_{CT}$ is a measure of knowledge of a particular cultural experience good category CT and div_{CT} is a measure of taste diversity with regard to a particular cultural experience good category CT .

With this discussion of taste development in mind, we are now ready to specify our first set of hypotheses. In order to do this we return to the notion of taste development introduced earlier in this chapter. As discussed, Lévy-Garboua and Montmarquette (1996) argue that consumers ‘learn by consuming’, thus developing a taste for particular categories of cultural experience goods over time. Therefore, the first hypothesis we put forward is a simple test of this proposition. In our model the taste development S_c is akin to the measure of subjective quality proposed by Lévy-Garboua and Montmarquette (1996), that depends upon both the level of familiarity *with* the cultural experience good category and the level of accumulated taste *for* the cultural experience good category. Therefore we would expect that, on average, individuals with higher levels of taste development S_c in a particular cultural experience good category are more likely to purchase the cultural experience good in question than people with lower levels of taste development. We therefore formulate our first hypothesis as follows:

Hypothesis 1 (H1): *The average choice probability of purchasing cultural experience good c , $P(buy_c|CS_c)$, increases with increasing levels of taste development S_c for a given category of cultural experience good CT , ceteris paribus.*

From H1 we can see the expectation is that the utility of a purchasing cultural experience good increases as taste is developed and subjective quality increases. In other words, people really do ‘learn by consuming’. It is worth reiterating here that our variable S_c is a measure of taste development for an entire cultural experience good category, rather than a particular good within said category. So if, for example, we examine consumer choice in the market for books, we would expect to see the average choice probability of purchasing a book to increase as an individual consumer’s measure of taste development S_c increases, regardless of the particular attributes or format that the book in

question may possess.

H1 can be further broken down in order to investigate the relative contribution to overall purchasing probability from each ‘strand’ of our taste development variable S_c , leading to the following hypotheses:

Hypothesis 2 (H2): *The average choice probability of purchasing cultural experience good c , $P(\text{buy}_c|CS_c)$, increases with increasing levels of accumulated taste T for that category of cultural experience good CT , ceteris paribus.*

Hypothesis 3 (H3): *The average choice probability of purchasing cultural experience good c , $P(\text{buy}_c|CS_c)$, increases with increasing levels of familiarity F for that category of cultural experience good CT , ceteris paribus.*

H2 and H3 can be considered to be a subset of H1. It is, however, a good opportunity to unpack the theories of Lévy-Garboua and Montmarquette and investigate not only the impact of taste development as a whole on purchase probability, but the relative impact that each ‘strand’ of this variable (in terms of both accumulated taste and levels of familiarity) has on consumer choice for a given cultural experience good category.

4.3.2 The cultural nature of the good

As discussed at length in Chapter 3, an economist tasked with examining how consumers make their cultural experience good choices is likely to be particularly interested in how the cultural nature of the good in question influences such choices. That is to say, does the inherent cultural nature of a particular experience good influence consumer choice (in terms of willingness to pay, chosen consumption format and the like) in any systematic way?

The obvious complication that springs to mind here relates to the prescription of a quantifiable level of ‘cultural nature’ to an individual experience

good. At first glance, measures and interpretations of culture seem very much subjective in nature and therefore intrinsic to the person consuming the good; as detailed in Chapter 3, such complications tend to result in the exclusion of the cultural nature of the good from the economic analysis of its demand. Nevertheless, the influence of the cultural nature of a good upon consumer choice remains of interest and yet the intricacies of this influence remain - for the most part - a mystery. While acknowledging that individual assessments of culture may be challenging to work with, we follow the suggestion of Throsby (2001) and utilise consensual agreements. The justification for which is offered as follows:

It may be that people agree for the ‘wrong’ reasons being hopelessly conditioned by their social environment or by some other external force, but it is equally possible that their consensus arises from some more fundamental process by which value is generated and transmitted. Indeed it can be said that, whatever the reason for it, the simple fact of agreement on cultural value in particular cases is itself of interest. (Throsby, 2001, p.28)

A possible way to tackle the difficulties associated with a multitude of heterogeneous assessments of the cultural nature of an individual experience good is therefore proposed. This model will use an indicator regarding the cultural content of an individual cultural experience good as our measure of the cultural nature of the good. As the term cultural content is widely used in relation to cultural goods (see, for example, Throsby, 1999; Towse, 2003; UNESCO, 2005), it is likely to be easier for respondents to interpret than alternative descriptions.

Despite being a cognitively more manageable proposition for individuals, the use of cultural content as our indicator of a good’s cultural nature is not without challenges, for example, Throsby (2008, p.151) notes that “cultural content has no immediately obvious unit of account.” In order to further reduce

the possibility of a variety of heterogeneous interpretations of cultural content among respondents, the variable will be framed in a narrower ‘nationalistic’ sense (as opposed to attempting to develop an all-encompassing definition).

The motivation for restricting our notion of cultural content to a nation-specific sense also stems from the overarching policy debates that dominate the discourse on cultural goods. Government policy regarding the cultural industries is primarily centred around the protection and production of ‘national’ culture, with the intent to promote the availability and consumption of cultural goods that convey nation specific content such as language, historical episodes, costumes, traditions and the like (Mas-Colell, 1999).

By framing cultural content in this nationalistic sense, the empirical estimations of this model are able to enter the policy debates surrounding the protection of national culture. As noted by Prieto-Rodriguez et al. (2005) justification for government intervention in the provision and funding of cultural goods is based on both their classification as a merit good and the potential existence of external economies and information asymmetries. However, assessment of consumer demand for national content, as proposed in this model, is rare. Providing this information would be a positive step towards ensuring that cultural policies aimed at the promotion of national cultural content are built upon a sound empirical footing.

The introduction of a variable that hinges upon the cultural nature of a good opens up a number of possible avenues of investigation. The model can now be used to test whether individuals value the transmission and dissemination of national cultural content. In other words, are consumers willing to pay a ‘premium’ for those experience goods which contain a high degree of national cultural content, in comparison to similar experience goods that contain either a low degree or no cultural content? This can be seen as a general test of demand for national cultural content.⁵² Furthermore, the influence of the

⁵²In some respects our specification of a good’s cultural nature in terms of its national cultural content can be viewed as an extension to Willis and Snowball (2009) who incorporate

cultural nature of the good can be examined, whilst holding the experiential nature of the good constant, thus making the important distinction between these two characteristics - a distinction that is often absent from studies of consumer choice for such goods. With the use of a LCM, such examinations can be extended to determine if there are certain groups of consumers who differ in their desire to consume national cultural content and, as a result, differ in their willingness to pay for such content. These groups may be differentiated by their socio-demographic characteristics along with the prior consumption habits of the respondents.

Before developing hypotheses that investigate how differing degrees of national cultural content inherent to an experience good influence consumer choice, recall the indirect utility function developed earlier in this chapter:

$$V_{ic}(S_{ic}, CN_c, X_i, X_c) \tag{1}$$

The variable CN_c is defined as measure of the cultural nature of the cultural experience good c . As discussed, in our model this variable takes the form of an attribute designed to capture the strength of the ‘national’ cultural content of the good under investigation (such as the conveyance of customs and traditions). It is important to reiterate that the subjective nature of the term ‘culture’ means that the variable CN_c will need to be centred around a well-defined researcher-imposed definition which can be easily interpreted by all respondents.⁵³ It is worth noting that elements in the indirect utility function are the attributes of the cultural experience good, rather than the number of

the context of a performance into a discrete choice experiment conducted on a national arts festival in order to examine how changes a performance’s setting influence consumer choice. The research contained within this thesis, however, makes more explicit inferences with regard to a good’s cultural nature, with the ultimate aim being the examination of how changes in the level of cultural content influence demand and how this influence varies across a variety of consumer groups.

⁵³With this in mind, the model presented in this chapter could be extended with the development of alternative measures of a goods cultural nature that lie outside of the nationalistic scope developed here.

goods consumed. Overall utility for a cultural experience good c for individual i therefore depends upon i 's indirect preferences for the good's non-cultural attributes *and* their preferences for the presence of cultural content.

As discussed in Chapter 3, the measurement of non-market demand for cultural goods and services has tended to be centred around contingent valuation models. It should, however, be noted that such models paint a picture of the value of cultural goods and services *as a whole*. This is in contrast to our avenue of investigation, which aims to determine the amount of utility a consumer derives from consuming goods with varying amounts of cultural content, and examine how this influences their consumption choices. With this in mind, we propose the following hypothesis:

Hypothesis 4 (H4): *Individuals value the protection and dissemination of national cultural content. In other words, consumers are willing to pay a 'premium' for those experience goods that contain a high degree of national cultural content, in comparison to the same goods that contain either a low degree or no cultural content.*

This hypothesis can be seen as a first step towards investigating how the cultural nature of an experience good influences demand decisions, and is a general test of demand for national cultural content. Individual willingness to pay is likely to be much more heterogeneous. The desire (and perhaps even ability) to pay a premium for national cultural content is likely to be contingent on an array of socio-demographic factors and prior consumption habits. We therefore put forward the following hypothesis:

Hypothesis 5 (H5): *There will exist $Q > 1$ 'classes' of consumers who differ in their preferences for the consumption of national cultural content, and as a result differ in their willingness to pay for such content.*

Heterogeneity in consumer types can be teased out of the choice experiment environment with the use of a latent class model, the theory behind which was

introduced earlier in this chapter.

4.3.3 The experiential nature of the good

The experiential nature of cultural goods renders their quality indeterminate prior to consumption.⁵⁴ In the case of theatre, for example, Abbé-Decarroux (1994) notes that the quality of the play is anticipated, therefore there is always a risk factor because consumers do not have complete information prior to the show. Consumption of an experience good is therefore associated with a risk that stems from the high cost, in terms of time and money, of failing to correctly assess the ex-ante quality of a cultural good (Abbé-Decarroux and Grin, 1992).

As a result of this risk, demand for such goods is likely to be dependent, at least in part, upon signals of product quality that can help consumers overcome the problems associated with issues of imperfect information.⁵⁵ Such quality signals can take the form of word of mouth, popularity (in terms of sales volume or best-seller lists) or measures of critical consensus (in terms of a single review or an aggregated professional review score).⁵⁶

Attempts to incorporate quality into models of demand for cultural goods are by no means novel. Throsby (1983) attempted to account for the quality of a theatre production through a set of variables (repertory classification,

⁵⁴Indeed, Darby and Karni (1973) and subsequently Molteni and Ordanini (2003) note that quality may not be learned or measured even *after* consumption.

⁵⁵At this point it is pertinent to make a distinction between the measures of product quality discussed here and Lévy-Garboua and Montmarquette's (1996) notion of subjective quality, discussed earlier in this chapter, the former being external signals observed by individual consumers and the latter taking the form of an intrinsic measure unique to each consumer, based on their prior consumption experiences.

⁵⁶As well as signals of quality, other studies of consumer behaviour in the presence of imperfect information have centred on advertising (Akerberg, 2003; Nelson, 1974) product labelling (Foreman & Shea, 1999; Jin & Leslie, 2003), learning from others (McFadden & Train, 1996), branding (Montgomery & Wernerfelt, 1992) and signals of prices and advertising outlays (Caves & Greene, 1996).

familiarity with author, standard of production and design) associated with each performance. In a number of studies since then, various measure of quality have been found to be a significant factor in an individual's cultural good consumption decisions (see, for example, Abbé-Decarroux, 1994; Colbert et al., 1998; Corning & Levy, 2002).

Returning to our indirect utility function:

$$V_{ic}(S_{ic}, CN_c, X_i, X_c) \tag{1}$$

recall that the term X_c contains a suite of 'non-cultural' qualities of cultural experience good c that are known to influence consumption. The incorporation of a measure of quality X_c into permits the testing of the following hypothesis:

Hypothesis 6 (H6): *The average choice probability of purchasing cultural experience good c , $P(buy_c|CS_c)$, increases with increasing levels of quality, ceteris paribus.*

This hypothesis represents a test of the well established literature on the topic of quality and consumption behaviour. While such literature on the topic of quality and consumer choice is dominated by discussions of the overall importance of quality to a consumer's purchase decision, it is posited that investigations into how much a consumer is willing to pay to avoid the risk of variations from ex-ante assessments of quality are of equal interest. With this in mind, a discrete choice model such as the one proposed in this chapter becomes a useful environment in which to ascertain not only the effect an increase in quality has on purchase probabilities, but also to determine an average willingness to pay for quality.⁵⁷

⁵⁷This can also be thought of as an assessment how much people will be willing to pay to avoid the risk and uncertainty regarding the unknown quality of a good prior to consumption that is associated with experience goods.

4.3.4 Genre and patterns of cultural good consumption

Each cultural experience good category CT can conceivably be split into a number of subcategories, that is to say, genres. The cultural experience good category of music could, for example, be broken down into pop, rock, jazz and the like. The inclusion of the genre of the cultural experience good into a model attempting to examine the determinants of demand may also be used to examine the presence of the ‘cultural omnivore’ (see, for example, Favaro & Frateschi, 2007; Fisher & Preece, 2003; Prieto-Rodriguez & Fernandez-Blanco, 2000; Van Eijck, 2001;). Omnivorous consumption behaviour can be described as having a desire for more than one genre within a given category of cultural experience goods (take, for example, a lover of books who reads *more than* just romance novels). Such omnivorous behaviour can be contrasted with univorous consumption behaviour in which individuals display a liking for a single genre in a particular category of cultural goods (such as someone who reads *only* romance novels).

The hypotheses developed here can also further the discussion regarding the distinction between highbrow and lowbrow consumers. In their discussion of music, Peterson and Kern (1996) defined highbrow consumers as those who hold a preference for either classical music or opera. The authors go on to find evidence highbrow consumers such as these are more omnivorous than their lowbrow counterparts. Levine (1988) went as far as to distinguish the cultural omnivore, discussed above, from the ‘snob’ consumer who does not participate in any lowbrow activities. It is noted, therefore, that the discrete choice model developed here permits examination of the existence of univorous and omnivorous consumption behaviour, as well as highbrow and lowbrow consumers.

A common thread running through this strand of the literature is that the existence of different consumption patterns is dependent upon a variety of socio-demographic characteristics. Favaro and Frateschi (2007), for instance,

found (in the Italian case) that age, gender, education and place of residence are important predictors of omnivorous behaviour in concert attendance. The inclusion of a genre attribute into each choice task, coupled with the collection of socio-demographic characteristics of the individual respondents will permit, via the use of a LCM, inferences to be made regarding the presence of ‘cultural omnivores’ in a given cultural experience good category. Formally, we put forward the following hypothesis:

Hypothesis 7 (H7): *There exists two distinct patterns of cultural good consumption behaviour, univore and omnivore, that are strongly correlated with a set of individual socio-demographic characteristics.*

Another key avenue of investigation permitted by the inclusion of the genre variable relates to the link between past exposure to cultural goods and the development of sophisticated and diversified tastes. Lévy-Garboua and Montmarquette (2011, p.177) note that “learned people, who are generally lovers of the classical arts, think that many others would eventually feel like themselves if they were better exposed to them.” This implies that taste for cultural experience goods is acquired or discovered and the rate of consumption of these goods increases over time. It could be expected, therefore, that ‘sophisticated’ consumers of cultural experience goods diversify their consumption preferences (and consume a variety of genres), while ‘popular’ consumers specialise on one specific genre. More formally we suggest:

Hypothesis 8 (H8): *Sophisticated consumers of cultural experience goods diversify their consumption preferences, while ‘popular’ consumers specialise on a specific genre.*

For the purpose of this hypothesis we define a ‘sophisticated’ consumer as one who has had repeated exposure to genres of a given cultural experience good category that are widely considered to be cognitively more demanding (classical music or literary fiction, for example). A ‘popular’ consumer is one who only consumes cognitively less demanding genres (pop music or non-fiction,

for example). We can then test the idea that ‘sophisticated’ consumers will, *ceteris paribus*, consume a greater cross-section of genres than their ‘popular’ counterparts.⁵⁸ The collection of information pertaining to a respondent’s prior consumption habits in a given cultural experience good category will be used to test this proposition.

In some respects H8 can be viewed as an extension to H1, H2 and H3 developed earlier. The difference is that we are now examining the influence of socio-demographic and prior consumption habits on a consumer’s likelihood to develop sophisticated and diversified tastes for a given cultural experience good category, as opposed to being solely concerned with the relationship between levels of accumulated taste and familiarly and overall purchase probabilities.

4.3.5 Cultural goods and technological change

The hypotheses developed thus far permit the examination of how the cultural and experiential nature of a good, coupled with the role of taste development and genre, influences consumer choice. The discrete choice environment also permits the examination of how technological change influences a consumer’s decision to purchase a cultural experience good. As noted by Potts (2014), such goods are experiencing a period of profound technological change. The arrival of new technologies has not only changed the way cultural goods are produced, but also how they are distributed and consumed (Healy, 2002). In the particular case of cultural experience goods, the arrival of new digital formats (ebooks and audiobook in the book industry, for example), coupled with the proliferation of internet usage and a decrease in the cost of smart phone data has made it easier than ever to search, consume and share digital

⁵⁸It is worth reiterating here that this definition of ‘sophistication’ relates specifically to the cultivation of a diverse array of consumption preferences for a selection of genres from a given cultural experience good category. A specialist in a *single* cognitively more demanding genre can still be considered sophisticated in terms of possessing a refined knowledge of that particular genre (take, for example, a literary fiction academic).

cultural goods over the internet (Molteni & Ordanini, 2003). The consumption of these goods is occurring across different technological contexts where they can be accessed, shared and collected (Singh et al., 2006).

Given these new consumption possibilities brought about by technological change, it is of particular interest to examine how cultural experience goods will be produced and made available to individual consumers. On a similar note, the rapid diffusion of digital technologies makes the already challenging task of understanding the determinants underlying consumer behaviour in the cultural industries even more difficult. As noted by Molteni and Ordanini (2003), these technologies enlarge the opportunities for consumption leading to a huge range of differentiation in choices. In addition the new technologies also “open new generations to different forms of consumption, such as downloading music or surfing a library’s digital archives” (Molteni & Ordanini, 2003, p.391).

With this in mind, incorporating the role of technological change into our model of demand determinants for cultural experience goods becomes of vital importance. Of particular relevance to this thesis is the examination of how people’s consumption choices for cultural experience goods change as their consumption options do. We begin, therefore, with the following hypothesis:

Hypothesis 9 (H9): *The adoption patterns of innovation in the cultural industries are non-linear. Therefore there exist $Q > 1$ classes of consumer who, on the basis of certain socio-demographic and prior consumption habits, differ in their preferences for new technologies with which to consume cultural experience goods.*⁵⁹

This hypothesis builds on the work of Molteni and Ordanini (2003) who found the presence of these differing consumption profiles in the market for music. In this study the authors use the example of the behaviour of vinyl record collectors compared to that of music downloaders in order to highlight different consumption profiles. There is no reason to assume that such segmentation

⁵⁹As with H5 this hypothesis can be tested via a latent class model.

would not extend to other cultural industries. For example, one could compare the behaviour of the avid book reader who prefers to keep a large physical library of books, as opposed to an equally avid reader who maintains a virtual Kindle library.

H9 examines the possibility that consumers can be segmented into technological adoption groups on the basis of their individual consumption preferences and socio-demographic characteristics. However, it is also conceivable that the adoption of new technologies may be contingent upon attributes inherent to the cultural experience good itself, as opposed to the consumer. Hirsch (1972, p.641), for example, notes the outputs of cultural industries are “nonmaterial goods directed at a public of consumers, for whom they generally serve an aesthetic or expressive, rather than a clearly utilitarian function.” It is posited therefore that the acquisition and consumption of goods of a cultural nature could also be seen as a signal of status or prestige. Given that new technologies tend to make information regarding the individual title that is being consumed less visible to others (both during and after consumption),⁶⁰ the potential for goods of a cultural nature to yield utility not only from consumption but also from being a publicly visible symbol of status is examined by the following hypothesis:

Hypothesis 10 (H10): *The adoption of new technologies to consume a cultural experience good is dependent upon the degree of national cultural content contained within the good in question. Specifically, cultural experience goods that contain high degrees of national cultural content are more likely to be consumed on what can be considered as more ‘traditional’ formats.*⁶¹

⁶⁰For example, a commuter on a crowded train reading a paperback copy of the latest winner of the Miles Franklin Literary Award is able to convey to those around her that she is keeping up with the latest trends in literary fiction, whereas other commuters reading the same title on an ebook send no such signal.

⁶¹This hypothesis can also be interpreted as an examination of Veblen’s (1899) notion of ‘conspicuous consumption.’ Clingingsmith and Sheremeta (2015, p.2) note that Veblen’s work implied that “the determinants of utility are consumption and social status *in the eyes of others*. Those goods which signal social status must be visible, but signalling may occur both through quantity and quality/price.”

On a related note, some subcategories (that is to say, genres) of cultural experience good may be more amenable to being consumed on newer consumption formats than others due to a variety of factors relating to the perceived ‘quality’ of the consumption experience.⁶² This leads to the following hypothesis:

Hypothesis 11 (H11): *The adoption of new technologies to consume a cultural experience good is dependent upon the genre of the good in question. Specifically, people prefer consuming certain genres of cultural experience goods on what can be considered as more ‘traditional’ formats.*

As Molteni and Ordanini (2003, p.390) note “the analysis of consumption patterns is a cornerstone of strategy in cultural industries and motivations stem from typical characteristics affecting the actual consumption (rather than just the experience) of cultural goods.” In this context, H10 and H11 serve to examine fundamental questions regarding the diffusion of new technologies into cultural industries. Furthermore, they acknowledge that this diffusion may not solely be influenced by the consumers socio-demographic and prior consumption habits (as tested in H9) but also on less tangible consumption experiences.

If particular attributes are found to affect consumer choice and the diffusion of new technologies, then such findings could be used to further the debate regarding technological adoption in cultural industries. This is particularly timely considering there is more uncertainty than ever regarding what the future holds for ‘traditional’ cultural experience good consumption formats.⁶³

⁶²Consumers may, for example, be less willing to watch the latest Hollywood action blockbuster on their mobile device due to the fact that the small screen does not do justice to the film’s special effects. Similarly, lovers of classical music may be of the opinion that digitally compressed formats are unable to convey the complex nature of such pieces and will therefore only listen to them on vinyl.

⁶³Take, for example, the debate in the book industry regarding the future of hardback and paperback books in the era of the ebook. Or, in a similar vein, concerns over what influence digital sales of music will have on sales of compact discs.

4.4 Chapter summary

In order to gain a richer understanding of the determinants of demand for cultural experience goods, a theoretical general model has been developed. Importantly, the flexibility of this model means it can be applied to all categories of cultural experience goods. The incorporation of our taste development variable S_c into the indirect utility function permits the examination of how levels of accumulated taste and familiarity influence the probability of purchasing a cultural experience good. The experiential nature of the cultural good is captured via the inclusion of a variable that measures some external indicator of quality. Analysis of how consumers react to such indicators allows researchers to examine how different groups of consumers respond to the consumption risks associated with issues of imperfect information. The addition of a variable that specifies the genre of the cultural experience good in question not only permits the examination of how different groups of consumers favour particular sub-categories of cultural goods, but also aims to contribute to the existing literature regarding univorous and omnivorous consumption patterns. The role of technological change is also incorporated in the general model, thus permitting investigations regarding the diffusion of new technologies into cultural industries to be made, along with the examination of how these patterns of diffusion are influenced by both the cultural nature and genre of a given cultural experience good.

A key component of the model is the introduction of a variable that encompasses the cultural nature of the good. As has been discussed at length, there are several issues with quantifying such a notion and incorporating it into the economic modelling process. It is posited that discrete choice modelling offers a novel way of overcoming this issue. By defining the cultural nature of a good in terms of the amount of national cultural content it embodies and incorporating this as an attribute in the discrete choice experiment, we are able to estimate how much extra consumers are willing to pay to consume an experience good with a cultural nature, as opposed to the same experience

good with no cultural component. Such information, it is hoped, will broaden our understanding of how consumers value cultural goods, in a way that the methods discussed in Chapter 3 (economic impact studies and contingent valuations) cannot.

With the general theoretical model in mind, it is now time to begin our empirical analysis. Before testing the hypotheses developed in this chapter, we will first introduce the category of cultural experience goods that has been chosen for analysis, books. Chapter 5, therefore, begins by documenting why the market for books makes for an interesting application of the theoretical model developed within this chapter. The remainder of the chapter is then dedicated to providing empirical support to the notion that books carry with them a cultural value that lies above its economic value. If we can find empirical support for this proposition, then we are justified in the use of a modelling approach that incorporates the cultural nature of a good, such as the one developed in this chapter.

5 Empirical application: The market for books

In this chapter we will introduce books as the chosen category of cultural experience goods to which the general model of demand developed in Chapter 4 will be applied. In order to motivate this choice of cultural experience good category, this chapter will begin by examining the current state of the book industry. Digital disruption, spurred by the rise to prominence of the ebook and audiobook, has had a profound effect on the market for books. This impact has caused a large degree of uncertainty as to what the future holds for the industry. However, there remains relatively little empirical research that attempts to understand better how consumers make their book purchasing decisions. It is posited, therefore, that the application of our general model comes at a critical time for the book industry and will hopefully be of use to a variety of industry stakeholders.

The second part of this chapter is devoted to furthering our understanding of the cultural nature of books. Specifically, we aim to add to the sparse existing literature on this topic by empirically testing the long-standing theory that the value of cultural goods (in our case, books) can be split into two separate components, economic value and cultural value. This is achieved by conducting a survey of readers at the 2016 Brisbane Writers Festival. Data on respondents cultural and economic valuations for books written by a variety of authors was collected and econometrically tested, the results of which will be discussed in detail.

5.1 Introducing books as the chosen cultural experience good category

The tractable nature of the general model presented in Chapter 4 means that it could be applied to a vast array of cultural experience good categories. It is

posited that a particularly useful and timely application is to the market for books. The digital transition has changed the way books are written, sold and read. Such rapid change generates a large degree of uncertainty as to what the future holds for the humble book. The digitisation of books has given rise to a suite of new content delivery formats, such as the ebook and audiobook. Ebooks in particular have established themselves as a major contender to the traditional printed paperback and hardback formats, with portability and convenience often touted as the format's unique selling point. The popularity of ebooks has been driven by the introduction of Amazon's Kindle ebook reader in 2007 and Barnes & Noble's Nook ebook reader the following year. The arrival of Apple's iBookstore ebook marketplace in 2010 further cemented the format's arrival into mainstream reading culture.

Table 2 contains data on US print and ebook sales between 2010 and 2015. The period from 2010 to 2013 witnessed a massive growth in the popularity of ebooks, with an increase in sales from 69 million to 242 million units during this time. As a result, the market share of ebooks increased from just 9% to 28% during this time. Meanwhile, sales of traditional printed books fell from 718 million units in 2010 to a low of 591 million units in 2012. However, the popularity of ebooks appears to have waned recently. Both sales and market share of ebooks fell for the first time ever between 2013 and 2014, a trend that continued the following year.⁶⁴ Similar downward trends have been reported in other English language book markets, such as the UK, Australia and Canada (Nielsen, 2016).

The disruption brought upon the market by the introduction of the ebook is undeniable.⁶⁵ Given the recent plateau of sales, however, the format's influence on the future of the book industry is a matter of much conjecture. Two distinct schools of thought have emerged. There are those who view ebooks as no

⁶⁴Wischenbart (2014) also notes that revenue for US ebook sales also reportedly fell for the first time ever in 2013, down US\$15 million to US\$1.471 billion.

⁶⁵Gilbert (2015), for example, notes that the digital disruption has led to questions regarding the future of bricks-and-mortar booksellers, concerns about the market power of key online retailers and disputes between retailers and publishers over pricing models.

Table 2: US print and ebook sales: 2010-2015

	Print Sales	Ebook Sales	Total Sales	Ebook Market Share
2010	718	69	787	9%
2011	651	165	816	20%
2012	591	215	806	27%
2013	620	242	862	28%
2014	635	234	869	27%
2015	653	204	857	24%

Note: All sales figures measured in millions of units.

Source: Nielsen (2016)

more than a passing fad, destined to fade into obscurity in a manner similar to the Betamax video cassette or the Sony MiniDisc player. Others, however, view the recent downturn in the market share of ebooks as a mere blip in an otherwise unfettered rise to dominance over their printed counterparts. Take, for example, the following quotes from two different authors, less than a month apart:

Clearly publishing, like other industries before (and since), suffered a bad attack of technodazzle: It failed to distinguish between newness and value. It could read digital's hysterical cheerleaders, but not predict how a market of human beings would respond to a product once the novelty had passed. It ignored human nature. Reading the meaning of words is not consuming a manufacture: it is experience (Simon Jenkins, May 2016).

Much like the passing of a cherished relative, denial is inevitable, publishers in particular. But the printed book's death rattle is obvious for those who are paying attention to the ebook craze (Kent Lester, June 2016).

While such quotes serve as examples of views from the extreme ends of the

digitisation debate, they do point to the wide degree of underlying uncertainty regarding preference formation and the determinants of demand in the book industry. Economic studies that examine the underlying drivers of demand for books would assist industry stakeholders in reducing such uncertainty; however such studies remain few and far between. To this end, Blaug notes:

There are still a surprising number of outlets for artistic creativity which have so far received very little attention from cultural economists. To give just one example, there is the topic of book publishing and book production, which cries out for economic analysis that has so far hardly been received. (2001, p.124)

Canoy et al. (2006) also note that studies regarding the determinants of demand and consumer behaviour in the industry are scarce. Most empirical examinations related to books are restricted to derivations of price and income elasticity of demand using available revealed preference market data (see, for example, Bittlingmayer, 1992; Hjorth-Andersen, 2000; Prieto-Rodriguez et al., 2005; Ringstad & Loyland, 2006). Analysis of the digital transition in the book industry has primarily been concerned with the degree of substitution and market cannibalization between ebooks and their printed counterparts (Hu and Smith, 2011; Li, 2013).

It is suggested that the paucity of such research can be attributed to two main factors. Firstly, traditional analysis of consumer behaviour and demand is typically driven by the use of revealed preference data.⁶⁶ Unfortunately, such studies are hampered by the scarcity of sales data from many of the book industry's most influential sellers. Due to the market power of the likes of Apple, Amazon and Barnes & Noble, any revealed preference examination into the consumer demand for books that fails to account for the sales of market leaders such of these is likely to be severely flawed in its conclusions. Secondly,

⁶⁶That is to say, some measurement of observed market behaviour, such as transactional data.

it is suggested that uncertainty regarding demand is perpetuated by the fact that books are a cultural experience good. That is to say, there is reason to believe that books have the potential to carry both a cultural and experiential component. As discussed in Chapters 2 and 3, neoclassical models of demand therefore struggle to account for their true value to consumers.

Indeed, Towse (2010, p.499) notes the experiential nature of books “in the sense that the reader cannot be sure he or she will enjoy the book until he or she has read it.” The author goes on to state that “it is the publishers who face the ‘nobody knows’ problem of predicting success. Publishers spend considerable amounts of money on advertising books and attending book fairs to promote books, but these efforts may not be very significant in attracting buyers.” While there is little doubt as to the experiential nature of books (that is to say, the enjoyment derived from the text cannot be determined in advance), providing evidence regarding the cultural nature of a book is a more difficult proposition. Nevertheless, in order to motivate the use of the general model of demand for cultural experience goods developed in Chapter 4 it is prudent first to take a closer look at the link between books and cultural value.

5.2 The economic and cultural value of books: Empirical evidence

The notion of cultural value was introduced in Chapter 3. Specifically, it was posited that while a cultural good usually has an economic value (commonly determined by its price in exchange), this economic value is likely to be supplemented by a cultural value that is not captured by conventional methods of economic analysis. On a theoretical level this is a generally well accepted proposition. However, empirical evidence to support the existence of cultural value and to investigate the relationship between the two ‘strands’ of value is rare.

To the best of our knowledge, Throsby and Zednik (2014) provide the only empirical evidence to date that purports to examine whether the economic value of a cultural good can fully encapsulate its cultural value. In order to do this, the authors take advantage of the disaggregated concept of cultural value introduced by Rizzo and Throsby (2006).⁶⁷ The authors asked a group of visitors to a well known Sydney art gallery to view a series of paintings and prescribe a value (according to a cardinal scale) to a variety of cultural value dimensions. These data, coupled with visitors judgements with regard to the economic value of the same paintings, were used to econometrically estimate the relationship between the two strands of value. Support was found for the notion that paintings convey a cultural value that lies outside the scope of economic value. Specifically, it was suggested that the symbolic and educational dimensions were the most prominent sources of cultural value that remained resistant to monetary assessments.

Despite the rarity of such empirical investigations, their importance cannot be overstated. As noted by Throsby and Zednik in their concluding remarks:

The comparative nature of economic and cultural valuation warrants detailed investigation in other art forms and cultural arenas. Methods of economic valuation for cultural goods and services are relatively well advanced, but a concomitant to further research in this area will be the development of more objective and rigorous methods for cultural value assessment. (2014, p.97)

Take, for example, our interest in examining consumer choice of books. If we are unable to find evidence that books have a cultural value that is distinct from its economic value, then the need for analysis the lies outside the neoclassical

⁶⁷Recall that Rizzo and Throsby (2006) suggest that cultural value measurement issues could potentially be tackled by disaggregating the concept of cultural value into its constituent parts (aesthetic, spiritual, social, historical and symbolic value and the like), thus permitting a thorough evaluation of each of the elements that make up cultural value. See Chapter 3 for a more detailed discussion of this topic.

framework is somewhat diminished. If, however, we can provide empirical evidence that there are certain elements of a book’s cultural value that remain resistant to monetary evaluation, then our application of the general model will be validated.⁶⁸ With this in mind, attention is therefore turned to our own attempt to further the empirical literature regarding the economic and cultural value of goods.

5.2.1 Hypothesis

In order to investigate the cultural and economic value of books we suppose that a group of readers can make a series of evaluations of well known authors, all of whom have amassed a substantial body of work.⁶⁹ It is assumed that the *cultural value* of books written by each of these authors can be broken down into a number of clearly specified dimensions and that individuals are able to assign a value to each of these dimensions according to a cardinal scale. Furthermore, it is assumed that each of these assessments of a given cultural value dimension for a given author can be aggregated across individuals to yield an overall judgement for a given cultural value dimension relating to the group of authors as a whole. Our final assumption is that the *economic value* of a book written by each of the survey authors can be expressed as an individual’s willingness to pay for said book. In this context, willingness to pay represents the aggregate market and non-market valuation of the book, measured in monetary terms.

With this in mind, the following hypothesis is proposed:

Hypothesis 12 (H12): *After controlling for all other relevant influences, the cultural value of an author’s work as assessed in relation to its various*

⁶⁸It should also be noted that such evidence would also cast further doubts on the ability of cultural good valuation methods such as economic impact studies and contingent valuations (discussed in Chapter 3) to capture the proportion of a cultural good’s total value that is derived from its cultural nature.

⁶⁹The authors used in this study, for example, have all been active for at least 20 years.

dimensions will only partially explain the work's assessed economic value; in particular, some dimensions that are important as components of a book's cultural value will be unrelated to the text's economic value.

If empirical evidence to support this hypothesis is found, then this is akin to finding support for the proposition that books have the potential to convey a cultural value that lies outside of its economic value as measured by the price in exchange. Use of the general model developed in Chapter 4 that incorporates the cultural nature of a good would therefore be considered justified.

5.2.2 Data and method

In order to test the H12, data were gathered by the author from a survey of attendees at the 2016 Brisbane Writers Festival. Held annually over five days in September, the Brisbane Writers Festival is one of Australia's largest festivals of reading, writing and books. The 2016 event alone attracted over 38,000 attendees. A writers festival was thought to be an appropriate place for the administration of such a survey as it brings together people who are predisposed to enjoying reading. These respondents can be described as being better informed and are therefore well placed to make judgements regarding the cultural and economic value of books.⁷⁰ While it is possible that attendees at a writers festival might be skewed towards higher cultural and economic valuations than the general population, the nature of the survey required respondents to be as well read as possible in order to make their value judgements. As the goal of this survey is simply to look at economic and cultural valuations, not to make inferences generalizable to the population, this sampling strategy was deemed appropriate.

Randomly selected festival attendees were asked if they would be willing to complete a survey asking for their opinions on eight prominent authors,

⁷⁰As noted in Chapter 3 the role of information is said to play a large role in the consumer choice of experience goods such as books.

consisting of five Australian and three international authors.⁷¹ Details of the authors included in the survey can be found in Table 3.⁷² Respondents were first asked if they had read a book written by each of the authors contained within the survey. If so, respondents were then asked a series of questions designed to elicit cultural and economic valuations (specified in detail below).⁷³ The survey also contained a variety of questions regarding respondent's attitudes towards literary fiction, along with questions relating to their book reading habits and socio-demographic characteristics. A copy of the survey is provided in Appendix A.

Table 3: Authors used in the cultural value survey

Author	Nationality	Years Active
Thomas Keneally	Australian	53
Margaret Atwood	Canadian	48
Christos Tsiolkas	Australian	22
Ian McEwan	British	39
Peter Temple	Australian	21
Jonathan Franzen	American	29
Tim Winton	Australian	35
Kate Grenville	Australian	32

Note: Years active is measured by the number of years since the author published their first full length novel.

5.2.3 Cultural value estimation

Following the work of Throsby (2001) and later Rizzo and Throsby (2006), cultural value was assessed by disaggregating it into six constituent parts:

⁷¹In order to encourage respondents to complete the survey, all completed responses were entered into a prize draw to win one of three AU\$100 book vouchers.

⁷²The authors included in the survey are predominately known for their works of literary fiction. With this in mind, one possible extension to this study would be to repeat it with authors from different genres in order to compare valuations.

⁷³Note that if a respondent was not familiar with a given author's body of work, they were not asked to make any cultural or economic valuation judgements.

aesthetic, educational, historical, social, symbolic and spiritual.⁷⁴ As discussed in Chapter 3, an individual may be able to recognise the cultural value of a good to society, and this could conceivably differ from their personal valuation. With this in mind, potential differences between an individuals ‘self-evaluations’ of cultural value and the value to society as a whole are examined by distinguishing between evaluations of social, symbolic and spiritual value ‘for self’ and ‘for others.’

Table 4 lists the cultural value statements presented to each respondent. For authors they had read, respondents were asked to evaluate each statement on a Likert scale of 1-10 (with 1 indicating ‘strongly disagree’ and 10 indicating ‘strongly agree’). In an attempt to ensure the statements presented to respondents were as free as possible from ambiguity and easily understood by all pilot testing of the survey to a sample of 35 respondents was conducted online, utilising a panel of respondents provided by a leading multinational market research company.

5.2.4 Economic value estimation

Obtaining a respondent’s assessment of the economic value of a book is a much simpler proposition. In order to elicit an estimate of the economic value of a book, respondents were asked to answer the following question for each of the survey authors they had read a book by:

Imagine a new book is being released by [author x] next week.
Furthermore, the book is only being released in a paperback format
(i.e. it will not be released as an ebook or in any other format).
Knowing that you will not be receiving the book as a gift, nor are

⁷⁴As noted in Chapter 3 and by Throsby and Zednik (2014), such a methodology views cultural value in a quasi-Lancastrian light. It is argued that breaking down a multidimensional variable such as cultural value into specific components can greatly assist with its quantification.

Table 4: Statements to elicit the cultural value of books

Cultural Value Dimension	Statement
Aesthetic: beauty	Books by this author are beautifully written
Aesthetic: imagination	Reading works by this author stirs the imagination
Educational	The topics of this author’s writing could be valuable in educating future generations
Historical	The subject matter that this author writes about helps to provide a connection with the past
Social: for self	Books written by this author help me to understand myself better as a human being
Social: for others	The subject matter that this author writes about helps to provide a connection with others
Symbolic: for self	Writing by this author possesses a cultural significance for me
Symbolic: for others	Writing by this author possesses a cultural significance for other people
Spiritual: for self	This author’s writing conveys spiritual messages to me
Spiritual: for others	This author’s writing conveys spiritual messages to other people

you be able to borrow it from a friend or library, how much would you be willing to pay for this book?

It is reasonable to assume that a respondent is able to conceptualise how much they would be willing to pay out of their own pocket for a book written by one of the authors contained within the survey. We therefore assume that this private valuation is a sufficient measure of the economic value of an individual piece of the author's work.

5.2.5 The model

In order to test H12 the following model is proposed:

$$E_k = f(C_{jk}, X_a, Y_k) \quad (18)$$

where E_k represents our measure of economic value for individual k , C_{jk} represents individual k 's response to cultural value statement C_j (as per Table 4, $j = 1, \dots, 10$). X_a is a vector of variables representing various characteristics of author a , where $a = 1, \dots, 8$. Finally, Y_k is a vector containing a variety of individual k 's socio-demographic characteristics.

Implicit in this model is the assumption that individuals consider the cultural values inherent to the book they are making a judgement upon, along with a set of author specific characteristics, *before* making their economic value assessment. The model also controls for any potential influences of an individual's socio-demographic characteristics. Investigations into the possibility of reverse causation, that is to say the possibility that economic value influences a person's cultural value assessments, are left for future research.

5.2.6 Results

Respondents were provided with two ways of completing the survey. Hard copies were handed out from the information booth located in the main foyer of the Brisbane Writers Festival over the course of three days. An online version of the survey was also available for the duration of the festival and remained open for seven days after the event. Links to the online version of the survey were distributed via the Brisbane Writers Festival e-newsletter and the festival social media accounts. A total of 337 complete responses were gathered.⁷⁵

Analysis of the respondents' socio-demographic characteristics revealed that the sample was skewed more towards females than the wider Australian population. Respondents were also skewed towards the higher end of educational achievement, with over 80% of respondents possessing a bachelors degree or higher. Both of these findings can be seen as more of an indication of the average writers festival attendee, as opposed to any inherent 'within festival' sampling bias. Coverage of age and income was, however, representative of national averages.

5.2.7 Estimates of cultural value

Table 5 details the estimates of the economic and cultural values of books written by our eight sample authors. Analysis of the mean values for *all* authors reveals that the most highly 'valued' dimensions of cultural value are those related to aesthetics and education, while the two spiritual dimensions are the least 'valued' by respondents.

Summary statistics for both Australian and international authors are offered in Table 6. From this table, one can see that international authors have a

⁷⁵Due to the detailed nature of the survey the average response time was reported to be around 15 minutes, while it is likely the sample size could have been increased with a shorter survey, this would have meant a decrease in the level of detail contained within the responses.

Table 5: Estimates of economic and cultural value: All authors

Value Dimension	Author								
	TK	CT	PT	TW	KG	IM	JF	MA	All
<i>Economic Value</i>									
Respondent WTP (AU\$)	25.73	22.65	24.06	27.00	28.14	26.20	21.18	27.93	25.92
<i>Cultural Value</i>									
Aesthetic: beauty	7.60	6.96	7.36	8.59	8.52	8.49	7.66	8.86	8.13
Aesthetic: imagination	8.17	7.34	7.54	8.62	8.73	8.44	7.68	9.12	8.33
Educational	8.88	7.62	6.93	8.54	8.94	8.04	7.82	8.71	8.35
Historical	8.94	5.88	6.21	8.04	9.20	7.74	6.39	7.58	7.74
Social: for self	6.96	6.22	6.38	7.70	7.90	7.66	7.29	8.00	7.38
Social: for others	8.13	7.22	7.52	8.26	8.47	7.75	7.28	8.23	7.95
Symbolic: for self	7.56	6.64	6.48	8.02	8.26	6.81	6.74	7.35	7.36
Symbolic: for others	8.00	7.65	7.57	8.34	8.55	7.54	7.31	7.91	7.95
Spiritual: for self	6.28	4.76	5.00	7.20	6.94	5.71	5.23	6.49	6.15
Spiritual: for others	6.47	5.59	5.71	7.65	7.52	6.35	6.08	6.72	6.69

marginally higher mean value on both aesthetic dimensions, as well as the social (for self) dimensions. However, the mean value for all other cultural value dimensions is higher for Australian authors.

Recall that the dimensions of cultural value relating to social, symbolic and spiritual value were split into a personal assessment and an assessment ‘for others.’ Referring once again to Table 6 reveals that regardless of whether we differentiate authors by nationality or whether we take all authors as a whole, the mean value for every dimension assessed with others in mind is higher than ‘self evaluations’ of the same dimension. There is, therefore, quite clear evidence to suggest that individuals are capable of recognising the potential for a book to impart a cultural value to others, even if they themselves have a lower personal assessment of its cultural value.

5.2.8 Estimates of economic value

Economic valuations from respondents, both in terms of specific authors and nationalities are shown in Tables 5 and 6 respectively. As discussed earlier, our sample’s economic valuations simply take the form of willingness to pay judgements for a new paperback book by a given author.⁷⁶ Overall, the mean willingness to pay for a book was AU\$25.92, which is considered to be reasonably close to current market prices.⁷⁷ There was a negligible difference (only a AU\$0.20 increase) between a respondent’s willingness to pay for books by an Australian author, compared to books written by an international author.

⁷⁶A measure of economic value in terms of percentage variation from average selling price was also created, however use of this variable made no difference to the overall results of the model.

⁷⁷In order to avoid any potential anchoring or starting point bias, respondents were not made aware of the average selling price for a book by any of the survey authors before making their economic valuation decision. With this in mind, the ‘sensible’ willingness to pay results derived from the survey are encouraging.

Table 6: Estimates of economic and cultural value: Summary statistics

Value Dimension	All Authors			Australian Authors			International Authors					
	Mean	Median	Min	Max	Mean	Median	Min	Max	Mean	Median	Min	Max
<i>Economic Value</i>												
Respondent WTP (AU\$)	25.92	25.00	0	70.00	25.85	26.25	0	60.00	26.05	25.00	0	70.00
<i>Cultural Value</i>												
Aesthetic: beauty	8.13	8	1	10	7.93	8	1	10	8.49	9	1	10
Aesthetic: imagination	8.33	9	1	10	8.20	9	1	10	8.57	9	1	10
Educational	8.35	9	1	10	8.39	9	1	10	8.27	9	2	10
Historical	7.74	8	1	10	7.92	9	1	10	7.44	8	1	10
Social: for self	7.38	8	1	10	7.18	8	1	10	7.72	8	1	10
Social: for others	7.95	8	1	10	8.01	9	1	10	7.86	8	1	10
Symbolic: for self	7.36	8	1	10	7.57	8	1	10	7.00	7	1	10
Symbolic: for others	7.95	8	1	10	8.11	8	1	10	7.65	8	1	10
Spiritual: for self	6.15	6	1	10	6.27	7	1	10	5.92	6	1	10
Spiritual: for others	6.69	7	1	10	6.81	7	1	10	6.46	6	1	10

5.2.9 The relationship between cultural and economic value

The model put forward in equation 18 can be tested by a linear regression where the dependent variable takes the form of economic value, as measured by willingness to pay. The independent variables, therefore, take the form of our cultural value assessments, along with a suite of author specific and socio-demographic characteristics. Full details of the variables used in the linear regression model can be found in Table 7. The size and statistical significance of the individual coefficients on each of the cultural value dimensions can then be analysed in order to assess which dimensions have an effect on the economic value of a book, and which do not.

Table 7: Variables used in the linear regression model

<i>Economic Value</i>	<i>Author Characteristics</i>
WTP (AU\$)	Australian (= 1)
	Years Active (years since 1st release)
<i>Cultural Value</i>	
Aesthetic: beauty	<i>Socio-demographics</i>
Aesthetic: imagination	Male (= 1)
Educational	Age (years)
Historical	Degree or higher (= 1)
Social: for self	Income (AU\$ per week)
Social: for others	
Symbolic: for self	
Symbolic: for others	
Spiritual: for self	
Spiritual: for others	

The results of the linear regression model are shown in Table 8. Looking first at the different dimensions of cultural value, we can see that four out of the ten dimensions (aesthetic: imagination, social: for self, symbolic: for self and spiritual: for self) presented to respondents are found to have a positive and statistically significant effect on a respondent's economic valuation of a book. Out of these four, the coefficient relating to aesthetic: imagination was the largest. Given the nature of the cultural experience good category in question

this is not surprising. After all, books are often said to stir the imagination of a reader. The other aesthetic dimension included in the survey (beauty) was not found to play a statistically significant role in influencing economic value, suggesting respondents struggled to make the connection between the beauty of a book and the price they are willing to pay for it.⁷⁸ All three of the ‘for self’ evaluations were also found to play a positive and statistically significant role in influencing a respondent’s economic valuations.

Table 8: Results of the linear regression model

Dependent variable: Economic value (WTP)			
<i>Cultural Value</i>		<i>Author Characteristics</i>	
Aesthetic: imagination	1.3087** (0.5200)	Australian	0.6337 (0.9730)
Aesthetic: beauty	-0.6949 (0.4853)	Years Active	0.0052 (0.0506)
Educational	-0.7543 (0.4925)	<i>Socio-demographics</i>	
Historical	0.4305 (0.3335)	Male	0.6161 (1.0683)
Social: for self	0.7436** (0.3583)	Age	-0.0584* (0.0329)
Social: for others	-0.0430 (0.5234)	Degree or higher	-0.7173 (1.2119)
Symbolic: for self	0.7629* (0.3995)	Income	0.0012 (0.0008)
Symbolic: for others	-0.3662 (0.4654)	Constant	17.5837 *** (4.2310)
Spiritual: for self	0.8280* (0.4780)	<i>n</i>	337
Spiritual: for others	-0.7917 (0.5120)	<i>R</i> ²	0.22
		<i>F</i>	4.67

Notes: Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

⁷⁸One would not expect such a result for all cultural good categories. In the case of works of art, for example, Throsby and Zednik (2014) found a large and statistically significant positive relationship between respondents assessments of aesthetic beauty and their economic valuations.

Of the four socio-demographic characteristics used (gender, age, education and income), only age was found to have a statistically significant effect on economic valuations. Specifically, increasing age was associated with a slight decrease in willingness to pay judgements. The lack of a negative and statistically significant income variable is concerning as it could potentially signal the presence of collinearity between some of the variables in the model, raising questions regarding its predictive power. With this in mind the variance inflation factors (VIF) for each variable were calculated, the results of which are presented in Table 9. VIF are a common tool with which to detect multicollinearities between the independent variables of a model, they are calculated as follows: $1/(1 - R_i^2)$, where R_i^2 represents the proportion of variance in the i th independent variable that is associated with the other independent variables in the model. As a rule of thumb, VIF values greater than 10 may indicate a collinearity problem, given the results presented in Table 9 (where the highest value was 6.2) fears of multicollinearity in the linear regression model appear to be unfounded.

Given the nature of books as a cultural good that appeals to a wide variety of backgrounds, the lack of any statistically significant relationship between gender and education with economic valuations is not considered to be surprising. On a similar note, no relationship between income and willingness to pay was found. As paperback books are a relatively inexpensive item, their demand can be considered as less susceptible to income effects, thus offering one possible explanation for the insignificant relationship between the two variables. A related explanation may also be a lack of variability in income between respondents - given the nature of writers festivals and their tendency to attract relatively well off visitors this is a potentially compelling explanation. As the price of books is likely to be well known to respondents there may be little variation in the willingness to pay variable. Therefore, the low explanatory power of the linear regression model as a whole ($R^2 = 0.22$) could possibly be due to ‘anchoring’ in the responses to the willingness to pay question.

Table 9: Variance inflation factors for the linear regression model

Independent Variable	Variance Inflation Factor
<i>Cultural Value</i>	
Aesthetic: imagination	4.7
Aesthetic: beauty	3.6
Educational	4.4
Historical	2.6
Social: for self	3.0
Social: for others	4.2
Symbolic: for self	4.5
Symbolic: for others	4.2
Spiritual: for self	6.2
Spiritual: for others	6.0
<i>Author Characteristics</i>	
Australian	1.4
Years Active	1.4
<i>Socio-demographics</i>	
Male	1.1
Age	1.2
Degree or higher	1.1
Income	1.1

Overall, the results of the linear regression model offer support for the proposition developed in H12. There exists some relationship between a respondent's cultural value assessments and their economic valuations as measured by willingness to pay. In particular, the cultural value component relating to aesthetic: imagination has the strongest influence on economic value (as indicated by a positive coefficient of 1.31) and was also the second strongest cultural value assessment (with a mean survey response of 8.33). As discussed above, this indicates that people are willing to pay more for a book that has the capacity to stir the imagination. However, the relationship between economic and cultural value is far from perfect. Table 10 provides a comparison of the mean survey responses (from highest to lowest valued) for each of the cultural value dimensions. The adjacent column indicates whether or not each dimension was found to play a statistically significant role in influencing economic value. As one can see from this table, despite high mean valuations, five out of the top six cultural value dimensions (namely: educational, aesthetic: beauty, social: for others, symbolic: for others and historical) fail to exert any influence over economic value. There is therefore empirical evidence to suggest that books carry with them a cultural value (in terms of the dimensions listed in the survey) and, furthermore, the importance of these cultural value dimensions to the consumer choice decision is not fully captured by monetary assessments.

It should also be noted that in the case of each of the three cultural value components (social, symbolic and spiritual) that were split into evaluations for both 'self' and 'others,' respondents were able to incorporate their self evaluations of the cultural value components into their willingness to pay assessments. On the other hand, despite having relatively high mean survey responses, each of the three cultural valuations made on behalf of others were not found to have a statistically significant influence on willingness to pay. This finding suggests that differences between economic and cultural value are driven (to some degree) by the fact that individuals are able to recognise the cultural value of a good to others, but are not willing and / or able to incorporate such values into their own willingness to pay assessments.

Table 10: Comparison of mean survey responses and statistical significance

Cultural Value	Mean Survey Response	Statistically Significant Influence on Economic Value
Educational	8.35	No
Aesthetic: imagination	8.33	Yes
Aesthetic: beauty	8.13	No
Social: for others	7.95	No
Symbolic: for others	7.95	No
Historical	7.74	No
Social: for self	7.38	Yes
Symbolic: for self	7.36	Yes
Spiritual: for others	6.69	No
Spiritual: for self	6.15	Yes

5.3 Chapter summary

This chapter serves as a bridge between the theoretical model developed in Chapter 4 and the empirical testing of the model that follows in Chapters 6 and 7. We began by introducing books as our chosen cultural experience good category. The choice of books is considered to be timely as the industry is undergoing a period of profound technological change, caused predominantly by the introduction of ebooks and audiobooks. This digital transition, it is argued, has caused a great deal of uncertainty in the market for books. Such uncertainty is perpetuated by the lack of economic research with regards to the consumer choice of books. It was posited that one potential reason for this lack of research can be attributed to the fact that books are cultural experience goods and possess attributes that orthodox models of demand struggle to account for.

The remainder of this chapter was devoted to further understanding the cultural nature of books. Rather than simply assuming that books have the potential to embody a cultural value, we provide empirical evidence to support and better understand this proposition (an area of the cultural economics

literature that has been neglected to a large degree). In order to test this proposition, a survey of readers was conducted at the 2016 Brisbane Writers Festival. Econometric analysis of respondent cultural and economic valuations for books supports the notion that books carry with them certain components of cultural value that lie outside the scope of economic value. With this in mind, in order to account for such values, economic researchers must look outside the neoclassical framework that assumes all value can be measured in purely monetary terms. That is to say, justification is found to support the use of the modelling strategy developed in Chapter 4. It is to this application that our attention is now turned.

6 Research methodology

Having examined the cultural nature of books in detail we are now ready to assess their demand determinants. This chapter is therefore dedicated to the development of the discrete choice experiment that will enable testing of the hypotheses put forward in Chapter 4. We begin by making the important distinction between revealed preference and stated preference discrete choice experiments, noting that a stated preference experiment is better suited to our particular modelling strategy. With this in mind, alternative and attribute selections are then discussed in detail. The specifics regarding experimental design and survey administration are then documented. The chapter closes by looking at how our taste development variable is derived from the collection of additional data from respondents that lies outside of the ‘main’ discrete choice experiment.

6.1 The stated preference discrete choice experiment

When conducting a choice experiment the researcher typically obtains data using either the revealed preference (RP) method or the stated preference (SP) method.⁷⁹ The RP method utilises data from an individual’s observed choice decisions. The SP method, however, refers to situations where respondents are presented with a hypothetical choice decision and asked to express a preference.

The hypothetical nature of SP situations makes them particularly amenable to the inclusion of alternatives that do not yet exist and thus permits the examination of attributes that would not ordinarily be observed in neoclassical models of consumer demand. In Chapter 4 we developed a range of hypotheses aimed to incorporate the impact of taste development along with the cultural and experiential nature of a good into our model. As we have discussed, such

⁷⁹It is also possible to pool SP and RP data into a single choice experiment, often called a SP-RP model.

characteristics are not captured by any existing form of RP data. Therefore, our application of the general model to the market for books will utilise a SP approach. Employing the SP method will allow for richer and more nuanced information regarding an individual's preferences for particular attributes of books to be obtained than any existing book sales data can provide.⁸⁰ As SP experiments involve the collection of numerous choice responses from a single consumer, they are also said to have efficiency benefits over RP data. That is to say, as RP data often models a single observed choice from each consumer there is little potential for variability in the explanatory variables, leading to problems when estimating model parameters, an issue that can be avoided with the use of SP surveys.

McFadden (2013) notes that SP discrete choice experiments perform best when the choices presented to a respondent consist of a small number of relatively familiar and realistic alternatives that are described in detail. With this in mind, ensuring that all respondents are fully informed about the choice tasks at hand becomes of crucial importance to the integrity of the choice experiment. A SP approach permits the researcher to include a wide range of attribute levels to be incorporated into the choice experiment. Rose and Bliemer (2008) suggest that this often makes the estimated results from SP data more robust than results derived from RP data. One should, however, be aware that the hypothetical nature of the choice in a SP experiment may be associated with a hypothetical bias.⁸¹ Cherchi and Hensher (2015) note that a number of ways of reducing the effects of hypothetical bias have been put forward. Such methods include ensuring respondents are engaged in the choices they make, adding pictures to choice tasks to increase understanding, and using adaptive survey instruments. A number of these methods will be employed during the design of this discrete choice experiment in an attempt to

⁸⁰A further motivation for utilising the SP method relates to the lack of RP data available in the book industry which, as discussed in Chapter 5, is dominated by large firms (Apple, Amazon, Barnes & Noble, and the like) who strive to ensure that sales data remains proprietary.

⁸¹Defined by Schulze et al. (1981, p.153) as “the potential error induced by not confronting the individual with an actual situation.”

minimise any potential hypothetical biases.

6.2 Alternative selection

During the development of our general model in Chapter 4, it was stated that the alternatives used in our experiment would take the form of different consumption formats for a given category of cultural experience goods.⁸² Therefore, in our application to the market for books, the alternatives presented to each respondent (or more specifically given the nature of the good in question, to each reader) are the four formats on which a book can be read, namely: hardback book, paperback book, ebook and audiobook. A ‘no choice’ alternative is also included in all choice tasks should the respondent not find any of the options presented to them appealing. The choice tasks utilised in this experiment are shown in Appendix B. As can be seen, each choice task asks a respondent to pick from a suite of hypothetical reading experiences (that is to say, books). Each book is associated with a different format, alongside a variety of other attributes (the selection of which is discussed below). Each format was described to respondents as follows:

- *Hardback Book* - A hardback book (also known as a hardcover or hard-bound book) is bound with rigid protective covers. Hardback books are considered to be more durable than paperback books, however they are also heavier and therefore less portable than their paperback equivalents.
- *Paperback Book* - A paperback book is characterised by a thick paper (or paperboard) cover. Paperback books are flexible, often held together

⁸²Recall that as well as being easier for respondents to interpret, the use of consumption formats as alternatives in our choice sets permits the examination of how consumers respond to the introduction of new technologies (ebooks and audiobooks in our application), rather than how they respond to changes in the book titles on offer to them. Given our interest in how the digital transition is affecting the market (as discussed in Chapter 5), this is an important distinction to make.

by glue. Paperback books are generally lighter and smaller than their hardback equivalents, however they are likely to be less durable.

- *ebook* - An ebook (or electronic book) is a book that has been made available in digital form, consisting of text, images or both. Ebooks are readable on computers, smartphones and dedicated ereader devices such as Amazon's Kindle or the Kobo.
- *Audiobook* - An audiobook (or talking book) is a recording of a book's text being read aloud. Audiobooks are sold in the form of downloadable files which can be listened to on computers, smartphones and most stereo equipment (for example at home or in-car).

6.3 Attribute selection

During the development of the general model, we put forward a variety of hypotheses that will be used to examine the determinants of demand for a given cultural experience good category. The Lancasterian nature of our stated preference discrete choice experiment permits individual alternatives (in our case, books) to be broken down into the specific attributes from which a consumer derives their utility. With this in mind, attributes that capture the cultural nature of the book, the experiential nature of the book and the influence of different book genres will now be developed.⁸³

All attributes were selected based on a review of the existing literature on cultural experience good consumption, coupled with a pilot study in which respondents were asked directly what attributes of a book play an important role in determining choice. Table 11 details the attributes and levels that were selected for use in the discrete choice experiment (namely: genre, critical

⁸³With regards to our remaining demand determinants, the variable that captures taste development will be developed separately later in this chapter. The influence of technological change, on the other hand, is implicitly examined as a result of our choice of consumption formats as the alternatives in our choice experiment, as discussed earlier.

consensus, level of Australian cultural content and price). Definitions of each of these attributes, along with the rationale behind their selection is discussed in the following sections.

Table 11: Attributes and levels used in the discrete choice experiment

Attribute	Level
Level of Australian Cultural Content	None Low (base) High
Critical Consensus	2 out of 10 4 out of 10 6 out of 10 8 out of 10
Genre	Literary Fiction (base) Genre Fiction Literary Non-fiction General Non-fiction
Price	AU\$7.50 AU\$15.00 AU\$22.50 AU\$30.00

Note: The qualitative variables (genre and cultural content) are introduced into the discrete choice models as dummy variables. The base level therefore represents the level expressed by default in the utility function.

6.3.1 Level of Australian cultural content

The cultural nature of the book is expressed in terms of the ‘level of Australian cultural content.’ The rationale behind using a measure of national cultural content was discussed in detail in Chapter 4, while the potential for books to

convey a cultural value was empirically demonstrated in Chapter 5.⁸⁴

In our experiment, the level of Australian cultural content was presented to respondents as “a characteristic designed to capture to what degree the hypothetical book in question conveys uniquely Australian ideas, symbols and ways of life.” Respondents were also informed that “books that contain Australian cultural content help to build a collective Australian identity and influence the nation’s cultural practices.” The attribute could take one of three levels, *none*, *low* and *high*; each of which were to be interpreted as follows:

- *None* – Books with no Australian cultural content contain no uniquely Australian ideas, symbols and ways of life and therefore do not contribute to building a collective Australian identity.
- *Low* - Books with a low level of Australian cultural content contain some references to uniquely Australian ideas, symbols and ways of life and therefore contribute in a small way to building a collective Australian identity.
- *High* - Books with a high level of Australian cultural content are primarily centred on the communication of uniquely Australian ideas, symbols and ways of life and therefore contribute greatly to building a collective Australian identity.

As alluded to earlier, in order to reduce any potential biases in the results of the discrete choice experiment it is important to ensure respondents are fully informed about the choices they are making. With this in mind, a screen containing instructions for respondents, along with details and definitions of each alternative, attribute and level was shown to respondents before (and available during) the experiment. A copy of this text is provided in Appendix C.

⁸⁴As noted by Huggan (2007), Australian literature has long been considered a purveyor of national cultural identity, providing additional justification for the inclusion of this attribute.

6.3.2 Critical consensus

The experiential nature of a book warrants the inclusion of an attribute that serves as indicator of product quality into our discrete choice experiment in order to investigate how such signals influence consumer choice. Critical consensus was selected as our chosen indicator of quality and takes the form of an aggregated professional review score.⁸⁵ As discussed in Chapter 4, numerous measures of quality could have been incorporated into our modelling strategy, however aggregated professional review score was selected for its ease of understating across respondents. Furthermore, as noted by Molteni and Ordanini (2003, p.391), “when the quality is uncertain, people prefer what other people prefer.”

Critical consensus is a single number designed to encapsulate an overall measure of critical opinion towards the hypothetical book in question. The attribute is measured on an ordinal scale with four levels presented to respondents as follows:

- *2 out of 10* - indicates that the book received generally very negative reviews.
- *4 out of 10* - indicates that the book received generally negative reviews.
- *6 out of 10* - indicates that the book received generally positive reviews.
- *8 out of 10* - indicates that the book received generally very positive reviews.

One would naturally expect the average choice probability of purchasing a book to increase with increasing levels of quality (as measured in terms of

⁸⁵This aggregated professional review score can be thought of in the same light as the likes of the ‘Tomatometer’ score found at www.rottentomatoes.com (which measures critical sentiment towards movies) or the ‘Metascore’ available from www.metacritic.com (which also covers movies, along with music, tv and video games).

critical consensus), *ceteris paribus*. Also of interest is an examination of how different market segments of readers (that is to say, our latent classes) respond to differing levels of critical consensus.

6.3.3 Genre

A genre attribute is introduced into our discrete choice experiment in order to gain a better understanding regarding the patterns of cultural experience good consumption. For the sake of simplicity, the genre attribute consists of four levels designed to cover the broad spectrum of books on offer to readers. The selected genres are: *literary fiction*, *genre fiction*, *literary non-fiction* and *general non-fiction*. Each genre was presented to the respondents as follows:

- *Literary Fiction* - Literary fiction books are works of fiction that are said to possess literary merit. That is to say, such books tend to incorporate social or political commentary and focus on the human condition. It is often said that works of literary fiction are character driven and focus more on overarching themes, rather than on plot.

Examples of literary fiction include *The Great Gatsby* by F. Scott Fitzgerald and *To Kill a Mockingbird* by Harper Lee.

- *Genre Fiction* - Genre fiction (also known as popular fiction) are plot-driven works of fiction, written with the intent of fitting into a specific literary genre (such as crime, science fiction, romance, horror, etc.).

Examples of genre fiction include *It* by Stephen King and *The Girl with the Dragon Tattoo* by Stieg Larsson.

- *Literary Non-fiction* – Literary non-fiction (also known as creative or narrative non-fiction) is a genre of books that uses literary styles and techniques to create factually accurate narratives.

Examples of literary non-fiction include *In Cold Blood* by Truman Capote and *Wild: Lost to Found on the Pacific Crest Trail* by Cheryl Strayed.

- *General Non-fiction* – General non-fiction (also known as trade non-fiction) are non-fiction books are published for general readership. General non-fiction books are not generally targeted for a specialised or niche reader, instead they are books that are aimed for a wider audience.

Examples of general non-fiction include *A Brief History of Time* by Stephen Hawking and *No Logo* by Naomi Klein.

The inclusion of more specific sub genres (for example, crime fiction or romance sagas in the case of genre fiction) would undoubtedly enable a richer picture of patterns of book choice to emerge from the results of our experiment. However, given the vast array of possible sub genres for our chosen category of cultural experience goods, their inclusion would not be possible without cognitively overburdening respondents. Having too many levels in a single attribute potentially biases results, therefore it was deemed sensible to proceed with the ‘wider’ levels of the genre attribute.

6.3.4 Price

As is standard practice in discrete choice experiments, the inclusion of a monetary attribute allows for the derivation of the marginal rates of substitution of one attribute relative to another and permits the calculation of respondents’ willingness to pay for the alternatives and attributes presented. In a latent class framework, differences in the price parameter can also be used to compare the price sensitivity of different consumer groups.

In our choice experiment, the price attribute was defined to respondents as the price to purchase the book in question. Respondents were told to note that “for this price you receive your own copy of the book on the format listed

(hardback, paperback, ebook or audiobook). You are able to read the book an unlimited amount of times at your leisure.” The price attribute consists of the following four levels, chosen in order to cover a wide range of book prices on the market:

- *AU\$7.50*
- *AU\$15.00*
- *AU\$22.50*
- *AU\$30.00*

6.4 Experimental design

Hensher et al. (2015) note that the foundation for any stated preference discrete choice experiment is its experimental design. The alternative, attributes and attribute levels we have selected for our experiment thus far are not simply presented to respondents in an unsystematic manner. Rather, their selection can be generated by a wide range of design types, hence the term ‘experimental design.’

The simplest form of experimental design is a *full factorial design*. A full factorial is a design in which all possible combinations of attribute levels are presented to respondents. The size of the full factorial design is therefore dependent upon both the number of attributes and the number of attribute levels. For example, a full factorial design for the attributes and levels detailed in Table 1 would generate $3 \times 4^3 = 192$ possible combinations of attribute levels. This is obviously an unreasonably high number of choice tasks to present to each respondent. In order to reduce the number of choice tasks a *fractional factorial design* can be used. The two main types of fractional factorial design are known as *orthogonal designs* and *efficient designs*.

6.4.1 Orthogonal designs

A design is said to be orthogonal if it satisfies the condition of ‘attribute level balance’, that is to say, each attribute level is required to appear an equal number of times for each attribute over the course of the design (Hess and Daly, 2014). The generation of orthogonal designs is a non-trivial task. Computer programs can be used to search for such designs; however even if a suitable design is found to meet the attribute level balance criteria, the resulting number of choice tasks to present to each respondent may still be excessive.⁸⁶

While *blocking*⁸⁷ can be used to split an orthogonal design into smaller choice sets, issues with such designs still remain. For instance, orthogonality in an experimental design does not exclude the possibility of generating dominated choice tasks, where a respondent is presented with a set of alternatives that includes one alternative that would be unambiguously preferred over all other alternatives. The presence of a clearly dominant alternative greatly reduces the amount of information gained from the choice task.⁸⁸ Another limitation of orthogonal designs stems from the fact that should one want to combine socio-demographic or any other variables that lie outside the alternatives and attributes specified in a choice task, orthogonality would be lost.

6.4.2 Efficient designs

While an orthogonal design attempts to minimise correlation in the choice design for estimations purposes, an *efficient design* also aims to generate parameter

⁸⁶Take, for example, an experiment with five attributes, each of which has three levels. An experimental design that ensures orthogonality in this case would not be found for fewer than 18 choice tasks.

⁸⁷Blocking of an orthogonal design involves breaking up a whole experimental design into smaller designs, where each resulting block maintains attribute level balance and the combination of all blocks is orthogonal.

⁸⁸It should be noted that dominating choice tasks cannot simply be removed from a design without a loss of orthogonality.

estimates with the smallest possible standard errors. Efficient designs predict the standard errors by determining the asymptotic variance-covariance matrix (AVC) of the underlying choice experiment, based on the some prior information about the parameter estimates. Formally, the AVC matrix Ω_N is defined as follows:

$$\Omega_N(X, Y, \tilde{\beta}) = -[E(I_N(X, Y, \beta))]^{-1} = -\left[\frac{\partial^2 L_N(X, Y, \tilde{\beta})}{\partial \beta \partial \beta'}\right]^{-1} \quad (19)$$

where X represents the experimental design, Y the outcomes of the choice tasks and β the associated parameter values. $I_N(X, Y, \beta)$ is the Fisher information matrix with N respondents, while $L_N(X, \tilde{\beta})$ is the log-likelihood function for N respondents.

The efficiency of a design is usually determined by the minimisation of some ‘efficiency error.’ While a variety of measures of efficiency have been proposed, one of the most common is the D-error, which calculates the determinant of the AVC matrix Ω_1 (that is to say, Ω_N is calculated for a single respondent). Hensher et al. (2015) note that in practice it is very difficult to find a design with the *lowest* D-error, known as a D-optimal design. Instead, researchers tend to settle for a *sufficiently low* D-error, known as a D-efficient design. Due to their mathematically complex nature, efficient designs are generated by computer software the utilises a variety of pre-programmed algorithms (for example, a modified Federov algorithm, a relabelling, swapping, cycling algorithm or a coordinate exchange algorithm).

As noted in equation 19, efficient designs require some ex-ante estimates of the β parameters. While efficient designs can be generated using fixed prior parameters, there will always be some uncertainty with regard to the true parameter values as they cannot be known with certainty before an experiment

begins. One way to overcome such uncertainty is to utilise a *Bayesian efficient design*. Such designs make use of random priors that are described by a random distribution, instead of being fixed. That is to say, an efficient design finds a D-efficient design based on priors β_k , where k is a given attribute in the choice experiment. A Bayesian efficient design, however, will find a Bayesian D-efficient design based on priors $\beta_k \sim (\mu_k, \sigma_k^2)$. Efficiency of Bayesian designs is evaluated over a specific number of draws from the prior parameter distributions. While these draws can be random, the use of ‘smarter’ draws (such as Halton, Sobol or Gaussian) can often greatly reduce the computational burden of the design.

With this discussion in mind, the stated preference discrete choice experiment that we have developed this far will utilise a Bayesian efficient experimental design. While this is among the most complex experimental design process we have could have chosen, the benefits in terms of increased statistical efficiency (that is to say, more reliable parameter estimates with smaller standard errors) and the protection against misspecification (due to the use of priors with a random distribution, rather than fixed priors) are considered to be sizeable. As we have also discussed, the use of an efficient design instead of a full factorial or orthogonal design also reduces the number of choice tasks that need to be presented to a respondent, along with protecting against the presence of dominant alternatives within choice sets. This, in turn, reduces the cognitive burden placed upon respondents and can help to improve the quality of the experimental results. Based on our review of the literature in Chapter 3, it is also worth noting that this is, to the best of our knowledge, the first application of a Bayesian efficient design to a choice experiment involving a cultural good or industry.

The priors used for the estimation of our Bayesian D-efficient design were obtained by conducting a pilot survey in which 25 respondents each completed 12 choice tasks, resulting in 300 observations. This permitted the estimation of an initial multinomial logit model. The β parameters from this model were then used as the priors for the D-efficient design, the resultant choice tasks for

which are presented in Appendix B. All experimental designs were generated using NGENE (ChoiceMetrics, 2014).

6.5 Survey administration

The stated preference discrete choice experiment was conducted online, utilising a panel of respondents provided by a leading multinational market research company.⁸⁹ The survey was open to members of the market research company's panel who were Australian residents aged 18 or over. In order to be eligible to complete the survey, respondents must have indicated that they enjoyed reading books, thus restricting the sample to plausible consumers in the market for books.⁹⁰

The survey yielded 242 complete responses.⁹¹ Each person completed 12 choice tasks, with the four alternative book formats to choose from (hardback book, paperback book, ebook and audiobook), plus a no-choice alternative, resulting in a total of 2904 choice observations. In addition to these choice tasks, each respondent also answered a range of questions relating to their socio-demographic characteristics and reading habits.⁹² As discussed in the development of the general model, this additional information will be used in our hypothesis testing. Table 12 details the socio-demographic characteristics of the survey respondents.

⁸⁹While face-to-face interviews are often said to be the preferred method with which to elicit willingness to pay figures, Snowball and Willis (2011) provide evidence to suggest that a well designed self-completion questionnaire, based on realistic choice scenarios, may actually produce more reliable estimates of willingness to pay.

⁹⁰Eligible respondents were remunerated by the market research company for their participation in the experiment.

⁹¹The actual number of complete responses was 250, however 8 were dropped due to the failure of a variety of quality checks that were implemented in order to maintain the integrity of the data. Such checks included both attention and timing filters.

⁹²The experimental design software, NGENE, also generates an 'S estimate', which is the minimum sample size required for the estimation of significant parameters. The S estimate for our experimental design was 102. We therefore feel confident that our actual sample size of 242 is more than sufficient for the purposes of this experiment.

Table 12: Socio-demographic characteristics of the survey respondents

		%
Sex	Male	36.8
	Female	63.2
Location	Capital city or suburbs	63.2
	Regional, rural or remote area	36.8
Education	Did not complete high school	9.1
	High school or equivalent	20.2
	Post-secondary diploma / certificate	31.4
	Bachelors degree	27.7
	Postgraduate degree	11.6
Income (AU\$)	Less than \$400 per week	17.8
	\$400 to \$999 per week	33.9
	\$1,000 to \$1,599 per week	24.8
	More than \$1,600 per week	23.6
Age	18 to 24	16.6
	25 to 44	45.6
	45 to 64	29.5
	Older than 64	8.3
Household	Single, no dependent children	43.0
	Single, with dependent children	6.6
	Partner, no dependent children	29.3
	Partner, with dependent children	21.1

In order to ensure respondents were familiar with a stated preference discrete choice experiment environment, as well making sure they had a good understanding of the alternative and attributes being presented to them, each survey included detailed instructions (reproduced in Appendix C) as well as a sample choice task that had to be completed before beginning the experiment.⁹³

6.6 Measuring taste development

During our hypothesis development in Chapter 4, we posited that taste development, S_c in our model, is likely to play some role in determining the demand for cultural experience goods. Specifically, we defined our measure of taste development as a function of recent and long-term familiarity *with* and accumulated taste *for* the category of cultural experience good in question. Attention is now turned to how each of these variables were evaluated for our chosen cultural experience good category, books.

6.6.1 Assessing levels of familiarity with books

Assessing both our ‘recent’ and ‘long-term’ levels of familiarity with books is a relatively straightforward task. Our measure of recent familiarity (defined in Chapter 4 as con_{CT}) is simply the total amount of books consumed (or in parlance that fits our application, read) over a given time period.⁹⁴ With this in mind, respondents were asked the following question:

Approximately how many books have you read, or part read, in

⁹³The instructional information was displayed on screen for respondents to read before the choice tasks were undertaken and was also available as a ‘pop up’ window during every choice task.

⁹⁴Recall in Chapter 4 we proposed two broad categories of cultural experience goods, tangible goods and attendance goods. As books fall into the former of the two categories a measure of consumption is used here, as opposed to attendance.

each of the following formats the past 30 days?

Descriptive statistics for our measure of recent familiarity variable con_{CT} are provided in Table 13. The relatively high values for the maximum number of books (column 2 in Table 13) is likely a result of the inclusion of books that have been both read *and* part read. However, the inclusion of books that have been part read is deemed to be an important indicator of a respondent's overall tendency towards reading and is therefore used in subsequent calculations.

Table 13: Measure of recent familiarity with books: Descriptive statistics

	Min	Max	Mean	Median	S.D.
Paperback books	0	25	2.1	1	3.4
Hardback books	0	20	1.1	0	2.4
ebooks	0	20	1.1	0	2.4
Audiobooks	0	5	0.2	0	0.7
Total	0	30	4.6	3	5.2

Our measure of 'long-term' familiarity (defined in Chapter 4 as $child_{CT}$) is an indication as to whether or not the respondent was exposed to books at an early age in life. This was captured by the following survey question, the results for which are shown in Table 14:

Growing up, did someone encourage you to read books for pleasure?

Table 14: Percentage of respondents who were encouraged to read whilst growing up

	Yes	No	Total
Were you encouraged to read whilst growing up?	80.2	19.8	100

6.6.2 Assessing accumulated taste for books

Our accumulated taste variable T was defined in Chapter 4 as a measure of taste diversity and knowledge dependent upon previous consumption experiences with the cultural experience good category, CT . For the purpose of books our measure of accumulated taste is therefore centred around the readers' knowledge of a diverse selection of authors. To this end, each respondent was presented with a list of 18 renowned authors, from a wide variety of genres. For each of these authors respondents had to select from one of the following options:

- I have read a book / books written by this author.
- I am aware of this author but have not read any of their books.
- This author is totally unknown to me.

Table 15 lists each of the authors, along with the percentage of respondents who fall in each of the options mentioned above.

From these responses a measure of accumulated taste can be calculated as follows:

$$T_i = \frac{authrk_i}{18} \quad (20)$$

where T_i is our measure of accumulated taste for respondent i and $authrk_i$ is the number of authors that respondent i claims to have read or be aware of, 18 is simply the total number of authors presented to respondents.⁹⁵ Descriptive statistics for our accumulated taste variable T_i are shown in Table 16.

⁹⁵Given the nature of our accumulated taste variable T_i , it would also have been possible to simply use the total number of authors each respondent had read as an alternative to the

Table 15: Percentage of respondents who are aware of selected renowned authors

	I have read a book / books written by this author	I am aware of this author but have not read any of their books	This author is totally unknown to me
Douglas Adams	26.9	37.2	36.0
Terry Pratchett	22.7	44.2	33.1
Gertrude Stein	10.3	47.1	42.6
William S. Burroughs	13.6	40.9	45.5
Robyn Carr	9.9	38.8	51.2
Lori Foster	7.4	40.1	52.5
Simone de Beauvoir	12.8	40.5	46.7
J. K. Rowling	64.0	28.1	7.9
Mary Wollstonecraft	11.2	38.4	50.4
Stieg Larsson	18.6	37.6	43.8
Ian McEwan	16.1	38.0	45.9
Maeve Binchy	19.4	37.6	43.0
Joanne Harris	11.2	36.4	52.5
Kate Chopin	9.9	34.3	55.8
Herman Melville	14.0	38.4	47.5
Norman Mailer	14.9	37.2	47.9
Stephen King	69.4	23.1	7.4
James Joyce	19.8	41.7	38.4

Table 16: Measure of accumulated taste for books: Descriptive statistics

	Min	Max	Mean	Median	S.D.
authkr	0	18	10.5	9	6.7

In order to check for the possibility of yea-sayers amongst respondents (that is to say, respondents who overstate their levels of accumulated taste for authors) the list of authors presented to respondents also contained two ‘fake’ authors. These authors, along with the percentage of respondents who claimed to have read or be aware of them is presented in Table 17.

Table 17: Percentage of respondents who are aware of fictitious authors

	I have read a book / books written by this author or I am aware of this author	This author is totally unknown to me	Total
Mia Thoreau	9.9	90.1	100.0
John Kressin	7.9	92.1	100.0

In total 31 respondents out of 242 (12.8%) said they were familiar with either one or both of the fake authors. Given the sheer quantity of authors both past and present these results may be nothing more sinister than a case of mistaken identity. Nevertheless, as these fictitious authors were presented to all respondents, we are able to create a variable that can be used in subsequent analysis to test the robustness of our results.

6.7 Chapter summary

This chapter has been dedicated to the development of the discrete choice experiment that will allow us to test the hypotheses developed in Chapter 4’s general model for our chosen category of cultural experience goods, books. We began by outlining the key differences between a revealed and stated preference discrete choice experiment, before making the case that a stated preference

numerator proposed in equation 20 (as opposed to the sum of authors they had read *plus* the authors they are aware of). It was, however, decided against this approach in order to keep our measure of accumulated taste distinct from what would have amounted to a mere preference for a particular type of authors.

experiment was best suited to our needs (both from the standpoint of the lack of available revealed preference data and the flexibility that a stated preference experiment permits). With this in mind, the key components of a discrete choice experiment were discussed in detail.

Particular attention was paid to the alternatives and attributes that are included in the choice tasks presented to respondents and how each link back to the hypotheses that we wish to test. A Bayesian efficient experimental design was then put forth as our chosen experimental design framework. It was suggested that this design is not only more efficient but also generates more realistic choice tasks and has the potential to reduce the required sample size of respondents.

With the design of the discrete choice experiment complete, focus was then shifted to issues regarding survey administration. 242 respondents each completed 12 choice tasks, resulting in the collection of 2904 choice observations. Respondents were also asked a series of additional questions regarding their socio-demographic characteristics and book reading habits. As well as being utilised in the latent class modelling process to differentiate between ‘classes’ of consumer, these additional responses were also employed in the creation of our taste development variable S_c . The chapter concluded with a detailed look at the make-up of this variable, including how our measures of accumulated taste and levels of familiarity for books were derived.

With the theoretical model laid out and the research methodology for our chosen empirical application complete, it is now time to proceed to the analysis of our results. Accordingly, Chapter 7 is dedicated to the testing of the hypotheses we have developed thus far and the presentation of an in-depth look at the key findings of the model.

7 Results and hypothesis testing

The hypotheses developed in Chapter 4 will now be tested. We begin with the estimation of a binary logit model that is used to test the hypotheses relating to the development of taste for books. Multinomial logit and latent class models will then be estimated, along with associated willingness to pay calculations. These models will then be used to test the remaining hypotheses relating to the cultural and experiential nature of books, genre and patterns of book consumption and technological change. The chapter closes with a discussion of the three distinct ‘classes’ of reader that emerge from the results of the discrete choice experiment, namely the ‘popular reader’, the ‘cultural connoisseur’ and the ‘technological adopter.’

7.1 Taste development: Model results

The first three hypotheses developed in Chapter 4’s general model of demand examine the role that taste development plays in a consumer’s choice of cultural experience goods. H1 proposed that increases in taste development for a particular category of cultural experience good lead to the development of ‘cultural capital’ within individual consumers. This increase in cultural capital is then said to lead to an increase in the probability of purchasing more goods from the same cultural experience good category. Subsequently, H2 and H3 examine the drivers of this relationship by disaggregating our measure of taste development into levels of accumulated taste and familiarity respectively.

The relationship between taste development (both overall and its component parts) and average choice probability is expected to hold regardless of the attributes (critical consensus, level of Australian cultural content or price) that the book in question may possess. Therefore, in order to test H1, H2 and H3 we are only interested in the binary choice of our respondents. That is to say, whether or not they choose to buy one of the books presented to

them from a given choice set, or not. As our taste development variable lies outside of the scope of the alternatives and attributes on offer, which particular book the respondent chooses to purchase is of no interest at this stage. We therefore specify our 2904 choice observations (242 respondents, each making 12 purchasing decisions) as a simple buy / no buy decision.

Given the binary nature of this specification (whether *any* book is chosen, or the *no choice* alternative is chosen), a binary logit model is estimated.⁹⁶ The key variables in this model will, of course, be our measures of taste development S_c and its constituent parts, namely the level of familiarity F and accumulated taste T . As mentioned in Chapters 3 and 4, a consumer's choice of cultural experience goods is also thought to be influenced by a variety of socio-demographic variables. With this in mind, information pertaining to respondents' gender, age, income, education, marital status and number of dependent children are also incorporated into our binary logit model. Descriptive statistics for both the taste development and socio-demographic variables can be found in Table 18.

Using the binary logit model framework, the utility difference function between the choice of purchasing a book or not can be written as follows:

$$\Delta U = k_0 + k_1authrk + k_2total30 + k_3encourage + k_4male + k_5age + k_6income + k_7education + k_8children + k_9single \quad (21)$$

where k_0 is the alternative specific constant (that is to say, the mean utility) for the 'buy' alternative. Choice modelling requires one alternative to be the base (or reference) alternative, where the parameters in the utility function are set to zero. Therefore, in the models used to test H1, H2 and H3, the base alternative is simply set as 'no buy' (that is to say, not to purchase one of the

⁹⁶Stata 14 (Statacorp, 2015) was used for the estimation of the binary logit models.

Table 18: Independent variables used in models 1-5: Descriptive statistics

Variable Name	Variable Type	Min	Max	Mean	Median	S.D.
Measure of Familiarity:						
Books Read 30 Days	Continuous	0	30	4.6	3	5.2
Encouraged	Dummy	0	1	0.8	1	0.4
Measure of Taste:						
Authors Read / Known	Continuous	0	18	10.5	9	6.7
Socio-demographic:						
Male	Dummy	0	1	0.4	0	0.5
Age	Continuous	18	74	41.9	41	15.8
Income (AU\$1,000/year)	Continuous	3.9	114.4	55.3	46.8	33.3
Education (years)	Continuous	6	17	13.5	13	2
Children	Dummy	0	1	0.3	0	0.4
Single	Dummy	0	1	0.5	0	0.5

books on offer). The estimated parameters k can be interpreted in terms of the differences in utility caused by purchasing one of the books on offer.

In Chapter 6 we developed two measures of familiarity with books, defined in equation 21 as *total30* and *encourage*. We also have a single measure of accumulated taste, defined in equation 21 as *authrk*. With this in mind, a total of five models will be estimated in order to examine H1, H2 and H3. Model 1 considers only the socio-demographic characteristics of the respondents and can therefore be considered a reference model with which comparisons to models that incorporate our taste development variables can be made. Model 2 incorporates our measure of recent familiarity with books, while model 3 includes our measure of long-term familiarity. The accumulated taste variable is then incorporated into model 4. Finally, model 5 incorporates all three of our taste development variables simultaneously in order to model the overall effect of S_c on average choice probabilities.⁹⁷

The results of models 1-5 are presented in Table 19. The $prob > \chi^2$ is 0 for all models, indicating the models fit statistically significantly better than a model without any predictors. The log-likelihood of each model can be used to compare the fit of one model to another, with higher values (i.e. values closer to zero) indicating a better fit. As is evident from Table 19, the model that contains only socio-demographic characteristics and none of our taste development variables has the worst fit out of all of those presented. As each of our taste development variables is added individually over models 2-4, the model fit improves over the reference model. Finally, the model that incorporates all three of our taste development variables simultaneously, model 5, can be seen to have the best fit of all the models presented.

A statistical test, known as a likelihood-ratio test, can be used to compare

⁹⁷It is worth noting at this point that a variable indicating whether or not a respondent had read a book by, or was aware of, one of the two ‘fake’ authors in our survey was also incorporated into the models examined here. However, it was found to have no influence on the overall results and was therefore excluded from subsequent analysis.

Table 19: Results for models 1-5

	Model 1: without measures of taste and familiarity	Model 2: including only a measure of recent familiarity	Model 3: including only a measure of long-term familiarity	Model 4: including only a measure of accumulated taste	Model 5: including all measures of taste and familiarity
Measure of Familiarity					
Books Read 30 Days		0.0150 (0.0119)			0.0065 (0.0119)
Encouraged			0.3529** (0.1430)		0.3468** (0.1432)
Measure of Taste					
Authors Read / Known				0.5181*** (0.1666)	0.4976*** (0.1704)
Socio-demographic					
Male	-0.0148 (0.1239)	-0.0163 (0.1239)	0.0363 (0.1260)	-0.0317 (0.1244)	0.0104 (0.1261)
Age	-0.0223*** (0.0039)	-0.0216*** (0.0040)	-0.0216*** (0.0040)	-0.0209*** (0.0039)	-0.0200*** (0.0040)
Income	0.0364 (0.0247)	0.0379 (0.0247)	0.0337 (0.0247)	0.0415* (0.0247)	0.0394 (0.0248)
Education	0.0383 (0.0286)	0.0408 (0.0286)	0.0391 (0.0288)	0.0274 (0.0288)	0.0298 (0.0290)
Children	0.5847*** (0.1648)	0.6109*** (0.1661)	0.6314*** (0.1659)	0.5617*** (0.1648)	0.6237*** (0.1673)
Single	-0.0122 (0.1354)	0.0062 (0.1366)	-0.0218 (0.1358)	0.0176 (0.1350)	0.0166 (0.1362)
Constant	2.1963*** (0.4616)	2.0450*** (0.4764)	1.8741*** (0.4837)	1.9669*** (0.4694)	1.5890*** (0.5012)
Log-likelihood	-986.8486	-986.0158	-983.9160	-981.9609	-978.9054
Observations	2904	2904	2904	2904	2904
Wald χ^2	70.2762	71.9419	76.1416	80.0517	86.1627
$Prob > \chi^2$	0.00	0.00	0.00	0.00	0.00

Notes: Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

the goodness of fit of two models. The likelihood-ratio (LR) test statistic is calculated as follows:

$$LR = -2(LL_{base} - LL_{rest}) \quad (22)$$

where LL_{base} is the log-likelihood of the reference model (model 1 in our case) and LL_{rest} is the log-likelihood of a restricted model that has additional predictors in place (models 2-5 in our case). The likelihood-ratio test statistic has a chi-squared distribution, with degrees of freedom equal to the number of restrictions. If the likelihood-ratio test statistic is greater than the critical chi-squared value, then the analyst rejects the null hypothesis that the restricted model is no better than the base model, and can conclude that the addition of a particular predictor (or predictors) is warranted.

Table 20 lists the results of the likelihood-ratio test for models 2-5. In each case model 1 (the model with no taste development variables) is used as the reference model. Analysis of the likelihood-ratio tests indicates that the inclusion of a single measure of ‘recent’ familiarity (that is to say, the number of books consumed over the past 30 days) does not outperform the base model. Models 3-5 do, however, perform statistically significantly better than the base model. Indicating that the addition of our taste development variables as a factor that positively influences the probability of purchasing a book appears to be justified.

Turning to the significance of the socio-demographic variables: there is a high degree of consistency across all five models. Age is statistically significant in each case. The negative coefficient on this variable means that as age increases the probability of purchasing a book declines (or in other words, younger people are more likely to purchase the book in question). In each model, the presence of dependent children in the household increases the likelihood of purchasing a book. The socio-demographic characteristics gender,

Table 20: Likelihood-ratio tests on models 1-5

Comparison	LR statistic	d.f.	χ^2	Model out-performs base
Model 2 to Model 1	1.67	1	3.84	No
Model 3 to Model 1	5.87	1	3.84	Yes
Model 4 to Model 1	9.78	1	3.84	Yes
Model 5 to Model 1	15.89	3	7.81	Yes

Note: at $\alpha = 0.05$.

level of education and marital status are not found to have any statistically significant influence upon choice probability. This is hardly surprising given the availability of books that appeal to all demographics. Income is, with the single exception of model 4, also not found to play a statistically significant role in determining choice probability. Intuitively, this also makes sense given the relatively low cost of books in general.⁹⁸

7.1.1 Results for H1, H2 and H3

Returning to Table 19 and looking first of all at model 2, were the only variable that has been added to the base model is our measure of ‘recent’ familiarity, the number of books read or part read in the last 30 days. The lack of statistical significance associated with this variable means the average choice probability of purchasing a book does not increase with increasing levels of recent familiarity. Furthermore, as can be seen from our likelihood-ratio tests, the addition of this variable does not serve to improve the fit of the model over that of the base model.

At first glance, the lack of significance relating to our measure of recent

⁹⁸On a related note, one could possibly hypothesise that the income variable may play a significant role in determining the choice probabilities of ‘big ticket’ cultural experience goods, such as a visit to the opera or theatre.

familiarity may seem surprising. However, a possible explanation is as follows. The 30-day period upon which our measure of recent familiarity depends may be confounded by a variety of other time-related factors that influence whether or not a respondent would purchase a book. In other words, as reading a book is associated with a substantial time cost, even the most avid (or in our parlance, familiar) reader may go a 30-day period without reading even part of a book. To counter this, a ‘longer’ measure of recent familiarity (the number of books read or part read over the last year) was considered for the survey. While this measure may have resulted in the establishment of a statistically significant link between recent familiarity and average choice probabilities, pilot studies generated serious doubts about a respondent’s ability to recall the number of books read or part read over such a long period of time.

Our ‘long-term’ measure of familiarity (included in model 3) tells a different story. The statistically significant positive coefficient of this variable indicates that exposure to books and reading as a child is indeed associated with an increase in average choice probabilities. In other words, there is evidence to suggest that encouraging a child to read increases their likelihood of reading later in life. All told, we find some evidence to support H3, with the average choice probability of purchasing a book increasing with increasing levels of long-term familiarity, but not with our recent measure.

Looking now at our measure of accumulated taste, as included in model 4. Once again, the statistically significant and positive coefficient attached to this variable leads us to believe it has an influence upon average choice probabilities. Specifically, we can say that those respondents who display a knowledge and taste for a more diverse array of authors are more likely to purchase a book than those readers with lower levels of knowledge and taste diversity. Therefore, we have evidence to support H2, with the average choice probability of purchasing a book increasing with increasing levels of accumulated taste.

The results of model 5 can be used to test the overall effect that our taste development variable has on average choice probabilities. Inclusion of all

three of these variables simultaneously results in the best overall fit out of all five of the models presented, indicating that the addition of these variables results in a model that performs significantly better than the base model. Two out of the three coefficients on our taste development variables (once again, long-term familiarity and accumulated taste) are statistically significant and positive, indicating support for H1. Specifically we suggest that the average choice probability of purchasing a book increases with increasing levels of taste development. This finding offers empirical support to Levi-Garboua and Montmarquette’s (1996) suggestion that the demand for cultural goods is influenced by taste development, or in their language, ‘learning by consuming.’

7.2 The multinomial logit and latent class models

As H1, H2 and H3 were all centred around a simple buy/no buy choice decision, the estimation of a binary logit model was sufficient for testing purposes. To test the remainder of the hypotheses developed in Chapter 4, however, we require the estimation of more advanced econometric models. With this in mind, we estimate a multinomial logit model (MNL), a latent class model (LCM) and a latent class model with socio-demographic and reading habit segmentation variables (LCM-MF).⁹⁹ NLOGIT (Greene, 2012) was used to estimate all three models, the results of which can be found in Table 21.

The likelihood ratio index ρ^2 is the most commonly used goodness of fit measure in choice experiments. The simple MNL model has a ρ^2 value of 0.117. This is greatly improved in the case of the LCM and LCM-MF, that have a ρ^2 value of 0.254 and 0.258 respectively. As noted by McFadden (1979), ρ^2 values between 0.2 and 0.4 represent an excellent fit, meaning the estimated latent class models perform particularly well.¹⁰⁰

⁹⁹Such segmentation variables are commonly referred to in the literature as ‘membership functions.’

¹⁰⁰In addition to evaluations of ρ^2 across models, a log-likelihood ratio test was also conducted on the MNL model confirming that the addition of the chosen attributes brought

Table 21: Results of the multinomial logit model, the latent class model and the latent class model with membership functions

	MNL	LCM			LCM - MF		
		Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
Utility function							
Hardback book	0.8669*** (0.0877)	-0.6077*** (0.1982)	4.4230*** (0.4976)	1.4648*** (0.2532)	-0.5930*** (0.1585)	4.4781*** (0.4796)	1.3941*** (0.2048)
Paperback book	1.0844*** (0.0900)	-0.4407** (0.2057)	4.7193*** (0.5137)	1.5977*** (0.2564)	-0.4277*** (0.1600)	4.7857*** (0.4836)	1.5079*** (0.2073)
eBook	0.4103*** (0.0968)	-1.8243*** (0.2816)	2.6459*** (0.5600)	1.8535*** (0.2532)	-1.7766*** (0.1618)	2.8255*** (0.5026)	1.8087*** (0.1981)
Audiobook	-0.2105** (0.1053)	-2.6669*** (0.3045)	0.9478 (0.6579)	1.3719*** (0.2510)	-2.6248*** (0.2273)	1.3508** (0.5260)	1.3335*** (0.2110)
Genre Fiction	0.3000*** (0.0371)	0.7343*** (0.0883)	0.1709* (0.0925)	0.1038* (0.0628)	0.7292*** (0.0656)	0.1287 (0.0861)	0.1159** (0.0548)
General Non-fiction	-0.0868** (0.0407)	-0.3369*** (0.1072)	0.0708 (0.0915)	-0.0067 (0.0621)	-0.3117*** (0.1038)	0.1123 (0.1237)	-0.0320 (0.0671)
Literary Non-fiction	-0.1513*** (0.0417)	-0.3796*** (0.1126)	-0.1616 (0.1037)	-0.1201* (0.0644)	-0.3946*** (0.1229)	-0.1589 (0.1738)	-0.1146 (0.0735)
Critical Consensus	0.2393*** (0.0116)	0.3678*** (0.0334)	0.0726** (0.0333)	0.2805*** (0.0183)	0.3594*** (0.0251)	0.0731** (0.0336)	0.2888*** (0.0136)
High Cultural Content	0.0781** (0.0318)	0.0620 (0.0803)	0.1688** (0.0765)	0.1177** (0.0497)	0.0635 (0.0622)	0.1764* (0.1002)	0.1214*** (0.0398)
No Cultural Content	-0.1022*** (0.0366)	-0.0519 (0.0909)	-0.1781** (0.0853)	-0.0788 (0.0561)	-0.0420 (0.1135)	-0.1880** (0.0940)	-0.0651 (0.0652)
Price	-0.0708*** (0.0033)	-0.0946*** (0.0087)	-0.0696*** (0.0076)	-0.0624*** (0.0055)	-0.0928*** (0.0074)	-0.0719*** (0.0059)	-0.0611*** (0.0050)

Table 21: continued

	MNL	LCM		LCM - MF			
		Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
Membership functions							
Constant					1.1368*** (0.3982)	1.0734*** (0.4116)	
Young					-1.6337*** (0.4191)	-0.9256** (0.4170)	
University					-0.4522 (0.4093)	-0.9490** (0.4284)	
Well Read					-0.1593** (0.0673)	-0.1943*** (0.0747)	
Group Size		29.7%	25.7%	44.6%	30.0%	27.2%	42.8%
Log-likelihood	-3872.6185		-3488.1252			-3465.6318	
Observations	2904		2904			2904	
Parameters	11		35			41	
AIC/N	2.675		2.426			2.415	
BIC/N	2.697		2.498			2.499	
Likelihood ratio-index	0.117		0.254			0.258	

Notes: Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

As indicated in Table 21, a LCM with three classes was adopted for this analysis.¹⁰¹ Determination of the appropriate number of latent classes requires the minimisation of a model selection index such as the Akaike Information Criterion (AIC) or the Bayesian information criterion (BIC), along with ensuring that the parameters of the classes are behaviourally valid. Increasing the number of latent classes in the specified LCM from two to three leads to a decrease in both AIC and BIC. However, as the number of latent classes was increased from three to four, the parameter estimates became unstable with large standard errors and very small class probabilities indicating an over-fitting of the model (Heckman and Singer, 1984). We therefore proceed with three latent classes.

The first of the two latent class models estimated (LCM in Table 21) does not include any segmentation variables. However the inclusion of certain socio-demographic and reading habit variables (that is to say, membership functions) into the LCM (LCM-MF in Table 21) is associated with an improvement in the likelihood ratio index ρ^2 , therefore this is the model that informs the discussion of results that follows. In order to estimate a LCM with membership functions, the membership parameters of one class (Class 3 in this case) are normalised to zero. This means that the membership function parameters in Classes 1 and 2 should be interpreted as being relative to Class 3.

A detailed analysis of the differences between each of the latent classes will be provided as we test the remaining hypotheses. In order to motivate this discussion an overview of the key characteristics of each latent class based on the parameter estimates of the LCM-MF is provided in Table 22 and the following ex-post classification of book readers is proposed:

- Class 1: Members of this class demonstrate a clear preference for reading genre fiction titles on traditional (paperback and hardback) formats.

with them a statistically significant improvement in model fit over a base MNL model containing only the four alternatives on offer.

¹⁰¹See Chapter 4 for details regarding the derivation of the latent classes and their associated parameters.

They pay little regard to the amount of cultural content a book contains, concentrating instead on positive critical consensus and low prices. Readers in this class are therefore defined as our *popular readers*.

- Class 2: Readers in this class place an emphasis on books that contain a high degree of cultural content, with this in mind we label them *cultural connoisseurs*. Members of this class also demonstrate a preference for traditional formats and are the least sensitive to price.
- Class 3: Due to their willingness to read books on both traditional *and* digital formats (ebooks and audiobooks) members of this class are considered to be *technological adopters*. Such readers demonstrate a slight desire to read books with a high degree of cultural content, however their purchasing decisions are predominately driven by the presence of positive critical consensus.

The segmentation variables that were found to be statistically significant are *young*, *university* and *well read*. *Young* refers to respondents who were below the age of 35 at the time of the experiment. *University* accounts for respondents who possess a bachelors degree (or higher), while *well read* indicates those respondents who reported reading a wider range of authors than the sample average. Information was also collected from respondents regarding their sex, income, marital status and the number of children present in the household; however, these variables did not prove to be statistically significant factors determining reading choices, and were therefore excluded from the analysis.¹⁰²

¹⁰²As mentioned during our discussion of the binary logit model results, socio-demographic variables such as income, marital status and the like are often found to influence demand for other cultural goods (such as visits to the opera and theatre). However, due to the relatively low cost of books, coupled with their popularity amongst individuals from all walks of life, one should not be too surprised that many of the membership functions were found to be insignificant in this case.

Table 22: Key characteristics of each of the latent classes

	Class 1	Class 2	Class 3
	‘Popular Readers’	‘Cultural Connoisseurs’	‘Technological Adopters’
Preferred Format(s)	Traditional	Traditional	Traditional & Digital
Preferred Genre(s)	Genre Fiction	All	Preference for Genre Fiction
Attitude Towards Critical Consensus	Very Important	Somewhat Important	Very Important
Attitude Towards Cultural Content	Not Important	Very Important	Somewhat Important
Price Sensitivity	High	Low	Medium
Group Size	30%	27.2%	42.8%

7.2.1 Multinomial logit model results

As alluded to above, the results of the MNL, LCM and LCM-MF models will be used to test the remainder of the hypotheses developed in Chapter 4. The two forms of LCM undoubtedly offer greater flexibility and explanatory power than the MNL model.¹⁰³ Nevertheless, the importance of the MNL model should not be dismissed. To this end, Hensher and Greene note:

The MNL model should always be the starting point for empirical investigation. It remains a major input into the modelling process, helping to ensure that the data are clean and that sensible results (e.g. parameter signs and significance) can be obtained from models that are not ‘cluttered’ with complex relationships. (2002, p.3)

With this in mind, before moving on to our examination of the results of the estimated latent class models (and the associated hypothesis tests), we present a general discussion of the MNL results, the details of which serve as a way of checking that our experimental framework yields logical results.

All parameters in the MNL are found to be statistically significant to at least the 5% confidence level. The alternative specific constants in the MNL model (hardback book, paperback book, ebook and audiobook) represent the utility derived from reading a book on a particular format (holding the attributes in the model constant). As the MNL models differences in utility, the parameters of the alternative specific constants represent the change in utility from the reference choice of ‘none’ (that is to say, not picking any of the given reading options). From the results it is apparent that the format that brings the respondents the most utility is paperback books, followed by hardback books, ebooks and finally audiobooks. Furthermore, the MNL model suggests that the audiobook format actually results in a disutility (represented

¹⁰³Recall our derivation of each of these models and the associated discussion in Chapter 4.

by a negative parameter in the model) to the reader. The order of preference for book formats generated by the MNL model mirrors that of the ‘real world’ level of popularity (measured in terms of market share). Another point of note is that the utility derived from ‘traditional’ formats (that is to say, paperback and hardback) is over twice that of the newer ebook format.

In terms of book genre, the parameters in the MNL represent the change in utility from the base genre of literary fiction. Genre fiction is found to be very popular indeed, with a highly significant positive parameter. Given that genre fiction is the best selling genre of the four included in the experiment, this result is not surprising. Both non-fiction genres (general non-fiction and literary non-fiction) are associated with a decrease in utility from literary fiction, with literary non-fiction being clearly the least-favoured genre.

Critical consensus is found to be a crucial determinant of book choice with a fairly large, statistically significant parameter. The positive sign on this parameter suggests (as one would expect) that increases in aggregated critical review scores are associated with an increase in the probability that a respondent selects a given book. Such a result gives credence to the notion that measures of critical consensus are indeed useful in helping consumers overcome the information problems associated with cultural experience good consumption.

The parameters associated with a book’s level of Australian cultural content indicate not only a desire to consume such content, but also to avoid books containing no such content. A move from the base level of a low degree of Australian cultural content to a high degree of Australian cultural content is responsible for a statistically significant increase in utility. Furthermore, moving from a book with a low level of Australian cultural content to one with no relation to Australian culture whatsoever is associated with a statistically significant decrease in utility. The consistency in the respondents’ desire to consume Australian cultural content serves to justify the inclusion of the attribute and offers reassurance that its meaning has been understood by

respondents.

Finally, the price parameter is negative and highly statistically significant, meaning, as expected, that lower prices are preferred over higher ones. In other words, people want to pay less for the books that they read.

All told, the results of the MNL model (in terms of logical parameter signs and statistical significance) provide encouragement that the stated preference discrete choice experiment that we have developed yields sensible and reliable results and provides a suitable foundation on which to estimate our more econometrically advanced latent class models.

7.2.2 Willingness to pay calculations

The willingness to pay (WTP) for a given alternative or attribute is simply the negative ratio of the parameter in question to the price parameter:

$$WTP = -(\beta_{attribute}/\beta_{price}) \quad (23)$$

The results for both the MNL and LCM-MF are shown in Table 23 and will be discussed at length as we proceed through this chapter.

With the estimation of our MNL and LCMs and the calculation of WTP figures complete, we are now ready to proceed with the testing of the remainder of the hypotheses developed in Chapter 4. We begin, therefore, with our investigation into how the cultural nature of a good influences consumer choice.

Table 23: Willingness to pay for book formats and attributes

	MNL	LCM - MF		
		Class 1	Class 2	Class 3
Hardback book	<i>12.24</i>	<i>-6.39</i>	<i>62.28</i>	<i>22.82</i>
Paperback book	<i>15.32</i>	<i>-4.61</i>	<i>66.56</i>	<i>24.68</i>
eBook	<i>5.80</i>	<i>-19.14</i>	<i>39.30</i>	<i>29.60</i>
Audiobook	<i>-2.97</i>	<i>-28.28</i>	<i>18.79</i>	<i>21.82</i>
Genre Fiction	<i>4.24</i>	<i>7.86</i>	1.79	<i>1.90</i>
General Non-fiction	<i>-1.23</i>	<i>-3.36</i>	1.56	-0.52
Literary Non-fiction	<i>-2.14</i>	<i>-4.25</i>	-2.21	-1.88
Critical Consensus	<i>3.38</i>	<i>3.87</i>	<i>1.02</i>	<i>4.73</i>
High Cultural Content	<i>1.10</i>	0.68	<i>2.45</i>	<i>1.99</i>
No Cultural Content	<i>-1.44</i>	-0.45	<i>-2.61</i>	-1.07

Note: All figures in AU\$. Willingness to pay only carries a meaningful interpretation when derived from statistically significant parameters, indicated by *italics* in this table.

7.3 The cultural nature of the good: Model results

A fundamental goal of the stated preference discrete choice experiment developed in this thesis is to account for the role that the cultural nature of a good plays in consumer choice. As demonstrated in a review of the related literature, there have been relatively few existing choice experiments applied to cultural experience goods. While most studies (by design) attempt to explain what effect the experiential nature of such goods has on consumer choice, the cultural nature of the good is often excluded from analysis. With this in mind, H4 served to examine the proposition that individuals (in general) value the protection and dissemination of national cultural content and are willing to pay a ‘premium’ for experience goods that contain a high degree of national cultural content. H5 then extended this proposition in order to investigate how willingness to pay for national cultural content varies across different consumer groups.

7.3.1 Results for H4 and H5

H4 can be seen as a first step towards investigating how the cultural nature of an experience good influences demand decisions. As such, it can be considered a general test of demand for national cultural content. The results of the MNL model offer support for this hypothesis. The statistically significant negative parameter associated with books that contain no cultural content means that, on average, customers are willing to pay AU\$1.44 to avoid such books and purchase the equivalent book with a low level of cultural content (recall that ‘low’ is our base level of cultural content). Furthermore, the statistically significant positive parameter associated with books that are said to contain high levels of cultural content indicates that the average consumer is willing to pay an additional AU\$1.10 to purchase such books, over the same book that contains a low level of cultural content. In total, our empirical evidence suggests that the average consumer is willing to pay a ‘premium’ of AU\$2.54 for a book that contains high levels of cultural content, over the equivalent book that has no discernible cultural content.

While the results of the MNL give a general sense of how individuals value the protection and dissemination of national cultural content, valuations across consumers are likely to be much more heterogeneous. That is to say, the desire and / or ability to pay a premium for national cultural content is likely to be contingent on an array of socio-demographic factors and prior reading habits. This proposition is formally put forward in H5, and can be tested via our latent class model with membership functions.

The presence (or lack thereof) of Australian cultural content has no bearing on how our popular readers arrive at their book purchasing decisions. This is in direct contradiction to the cultural connoisseurs who (as their name would suggest) show a remarkable sensitivity to the presence of cultural content in their books. Not only does the presence of a high degree of cultural content increase the utility of members of this group, but books with no cultural

content actually cause a decrease in utility. In monetary terms this is akin to a willingness to pay of AU\$2.61 to avoid books with no cultural content (from the base level of low cultural content), and a willingness to pay an additional AU\$2.45 to purchase a book with a high level of cultural content (again, from the base level of low cultural content). All told, cultural connoisseurs are willing to pay a ‘premium’ of AU\$5.06 for a book that contains high levels of cultural content, over the equivalent book that has no discernible cultural content. The technological adopters can be considered to be somewhere in between the extremes of the other two classes in terms of their desire to consume cultural content. The presence of a high degree of cultural content results in a statistically significant increase in utility, albeit to a lesser extent than the cultural connoisseurs. Specifically, readers in this class are willing to pay AU\$1.99 to purchase a book that has high levels of cultural content, over the same book that has a low level of cultural content. However, having no cultural content in a book whatsoever is not found to cause the decrease in utility that the cultural connoisseurs experience.

There is, therefore, evidence to support H5. In our latent class model we have three classes of consumer, all of whom differ in their preferences (and consequently, their willingness to pay) for reading books that contain national cultural content. The overall characteristics of each class of consumer (in terms of socio-demographic factors and prior consumption habits) will be discussed in more detail later in this chapter. For now, we simply conclude that the presence of an overall willingness to pay for national cultural content, along with the subsequent identification of how this willingness to pay varies over different groups of consumers should be of interest to industry stakeholders and cultural policy makers.

7.4 The experiential nature of the good: Model results

In Chapter 4 it was noted that cultural experience goods (such as books) are associated with issues of imperfect information. With this in mind, H6 proposed that the demand for such goods is likely to be dependent, at least in part, upon signals of quality that may help a consumer understand more about the title under consideration and decrease the risk that accompanies cultural experience good purchases.

7.4.1 Results for H6

Both the MNL and the latent class model with membership functions offer strong support for H6, with positive and statistically significant parameter estimates throughout. This means that increases in aggregated critical review scores are associated with an increase in the probability that a respondent selects a given book. The MNL indicates that, on average, a book reader is willing to pay AU\$3.38 for each ‘step’ upwards in critical review score. Analysis of the critical consensus parameter across each class of consumer reveals that while all classes are willing to pay for books with increased levels of quality, there is significant variation between classes. The technological adopters demonstrate the highest willingness to pay (A\$4.73) to ensure the books that they read are critically acclaimed. The cultural connoisseurs also take critical consensus into account while making their book buying decisions; however, it is notable that they are willing to pay less than a quarter (A\$1.02) of what the technological adopters are willing to pay to ensure the same increase in quality. Our popular readers also value critical consensus highly and are willing to pay A\$3.87 for each increase in this attribute.

All told, the results indicate that measures of quality are an important tool which readers can use to navigate the risks associated with making a consumption decision for a cultural experience good such as books. However,

it is clear that some classes of reader put more weight on the importance of quality measures than others.

7.5 Genre and patterns of cultural good consumption: Model results

H7 proposed that it would be possible to distinguish between two distinct patterns of cultural good consumption behaviour, namely univorous and omnivorous. The ability to discern between these patterns of consumption is made possible by the inclusion of the genre attribute into the discrete choice experiment. Recall that this attribute consists of four levels: literary fiction, genre fiction, literary non-fiction and general non-fiction. Univorous behaviour can therefore be further defined as having a preference towards reading *only one* of the four genres on offer. Omnivorous behaviour will therefore be defined as having a preference to reading *more than one* of the four genres on offer.

The possibility to make a further distinction between ‘sophisticated’ and ‘popular’ consumers of cultural experience goods was put forward in H8. For the purpose of our application to the market for books we define a sophisticated consumer as one who has had repeated exposure to only genres of books that are widely considered to be cognitively more demanding (literary fiction, literary non-fiction and general non-fiction). A popular consumer is one who only consumes cognitively less demanding genres (genre fiction in our case - which, fittingly, is also commonly known as ‘popular fiction’).

7.5.1 Results for H7 and H8

Both H7 and H8 are examined using the results of the latent class model with membership functions.¹⁰⁴ Overall, genre plays a statistically significant role in the choice of books for the popular readers. In this class, a movement from the base genre of literary fiction to genre fiction coincides with a sizeable increase in utility, meaning that genre fiction is clearly the preferred genre amongst members of this class. Conversely, a move to either of the non-fiction genres is not desirable and associated with a decrease in utility (this disutility suggests that certain genres might be more difficult to understand than others, thus requiring more intellectual capital and decreasing enjoyment). In monetary terms, popular readers are willing to pay AU\$7.86 to move away from the reference genre of literary fiction to a genre fiction title with similar attributes. We therefore find evidence to support elements of both H7 and H8. There is a distinct class of reader who is not only univorous in their consumption habits, but also only demonstrates a desire to read books only from our ‘popular’ genre.

In general, both the cultural connoisseurs and technological adopters show no particular loyalty to any given genre (as is evidenced by the statistically insignificant nature of most of the parameters for this attribute), the only exception here being the fact that the technological adopters demonstrate a slight preference for genre fiction, albeit to a much smaller extent than the popular readers. The lack of preference for a particular genre from these two classes offers some support for the presence of omnivorous consumers (as specified in H7). That is to say, we can identify groups of readers who show a willingness to read all genres available to them. There is, however, little evidence to support the presence of sophisticated readers (as specified in H8). That is to say, no single class of readers shows a clear preference for *only* genres that are considered to be cognitively more demanding.

¹⁰⁴Recall that the MNL does not allow for preference heterogeneity between respondents so it cannot be used to test these hypotheses.

7.6 Cultural goods and technological change: Model results

The incorporation of book formats as the alternatives in each of the discrete choice experiment choice tasks permits the examination of how technological change influences consumer choice. To this end, H9 proposed that the adoption patterns of innovation in the cultural industries are non-linear. In other words, we suggest that there exist a variety of consumer groups who, on the basis of certain socio-demographic and prior consumption habits, differ in their preferences for new technologies with which to consume cultural experience goods. H10 and H11 subsequently extend this proposition, suggesting that the adoption of new technologies is influenced not only by characteristics unique to the consumer, but also by the attributes of the good itself (genre and the level of Australian cultural content in our case).

As discussed, for the purposes of our application to the market for books, we consider paperback and hardback formats to be ‘traditional’, while the digital formats included in our experiment, ebooks and audiobooks, are considered our ‘new technologies.’

7.6.1 Results for H9, H10 and H11

Once again H9, H10 and H11 will be tested with the results of the latent class model with membership functions. While the choice of all book formats is a statistically significant factor *across* all classes, there exists distinct preference heterogeneity *between* classes. The negative parameters on all book formats for the popular readers indicate that members do not consider the format of a book to be the leading factor in determining choice. This is also evidenced by a look at their willingness to pay figures, as shown in Table 23. These figures indicate that this class is much more motivated by attributes such as genre and critical consensus, than format choice. The relatively large disutility caused by the

reading books on newer digital formats (when compared to those on paperback formats) indicates that this class has a clear preference for traditional formats.

Our cultural connoisseurs, on the other hand, derive a high level of utility from all formats. It should be noted though, that while all formats yield a positive utility, members of this class also demonstrate a clear preference for traditional formats over the newer digital formats. Paperback books, for example, afford over 1.7 times the utility of ebooks. Readers in this class therefore have the highest willingness to pay for books overall (AU\$66.56 and AU\$62.28, for paperback and hardback formats respectively).¹⁰⁵ This class also has the largest differential between their willingness to pay for traditional and newer formats.

Like the cultural connoisseurs, technological adopters also derive a positive utility from all formats. However, the parameters associated with this class are much less spread than the cultural connoisseurs, indicating that members derive similar levels of utility from all formats and are therefore much more likely to read on a range of formats, rather than sticking to traditional ones. The more ‘balanced’ nature of this class’s format preferences results in a much narrower range of willingness to pay between formats than the other two classes. For example, there is only a AU\$7.80 difference between the highest valued format (ebooks) and the lowest valued format (audiobooks).¹⁰⁶

Relating these findings back to the hypotheses developed earlier, we find clear evidence to support H9. That is to say, we can distinguish between classes of consumer who differ in their preferences (and consequently their willingness to pay) to read books on new technologies. There is also limited evidence to

¹⁰⁵Although counter-intuitive, the slightly higher willingness to pay for the paperback format may be down to the fact that readers in this class value the portability of a book over the aesthetic appeal and durability of similar hardback titles.

¹⁰⁶It is worth noting that while the WTP figures obtained in Chapter 5’s survey of writers festival attendees and the MNL in this chapter produce fairly similar estimates, the allowance of heterogeneous preferences facilitated by the use of the LCM makes it evident that WTP figures differ greatly between groups.

support H10. The class of consumer who demonstrates the highest willingness to pay for books that contain a high degree of national cultural content (our cultural connoisseurs) are also those who show the strongest preference towards traditional print formats. H11, on the other hand, gains little support from results we have collected. The class that has the clearest preference for one particular genre (our popular readers) does indeed show a clear preference for ‘traditional’ formats. However, the technological adopters also show some desire to read genre fiction (as indicated by the positive and statistically significant parameter estimate), along with a willingness to consume such books on all formats, not just traditional ones as hypothesised.

7.7 Class discussion

Having tested each of the hypotheses developed in Chapter 4 individually, we finish this chapter by expanding our descriptions of each of the classes of consumer (the popular readers, cultural connoisseurs and technological adopters). It is suggested that a detailed knowledge of the different market segments of book buyers is particularly valuable to industry stakeholders and can also be used to motivate policy discussions that will be put forward in Chapter 8.

7.7.1 Class 1: Popular readers

This class accounts for 30% of the market and contains readers who show little regard for reading anything other than genre fiction (commonly known as popular fiction) on traditional paper based book formats. Members of this group are willing to pay over four times more for this genre than members of other classes. Popular readers show no desire to pay for books with high degrees of cultural content (or to avoid books with no cultural content); rather they are willing to pay a relatively high amount to ensure books they purchase

are critically acclaimed. Overall, this class has the lowest willingness to pay for books, which is consistent with the fact that members are the most price sensitive of all the classes. Analysis of the membership functions indicates this group contains older readers in comparison to the cultural connoisseurs and technological adopters, who are less well read (as is to be expected from a group so partial to a single genre of books).

7.7.2 Class 2: Cultural connoisseurs

With a market share of 27.2% this class is only slightly smaller than the popular readers. Members of this group can be considered to be the most ‘traditional’ in terms of their reading preferences out of the three classes. Despite showing a positive willingness to pay for all book formats, the willingness to pay for traditional paper based formats is considerably higher than it is for newer digital formats. This class shows a desire and willingness to pay to read books that contain a high degree of cultural content, and members of this class are also willing to pay to avoid those books that contain no cultural content. Cultural connoisseurs are willing to pay for books that are critically acclaimed; however this attribute is much less of a deciding factor in choice than it is for members other classes. Of particular note is the fact that members of this group are willing to pay the highest price for their books. Indeed they are willing to pay almost double the recommended retail price for most books on the market today. It is clear, therefore, that the cultural connoisseurs derive the most pleasure from reading out of the three classes presented.

7.7.3 Class 3: Technological adopters

With a market share of 42.8%, this is the largest of all the classes. It also the youngest. While format choice is important for this group, the willingness to pay for both traditional paper-based formats and newer digital ones is

remarkably similar. Members of this group are clearly willing to adopt new content delivery technologies. Technological adopters demonstrate a very slight preference for genre fiction (albeit to a much lesser extent than the popular readers). The group's desire for high degrees of cultural content traverses the middle ground between the other classes, with readers in this class showing a willingness to pay for cultural content in their books (but not a willingness to pay to avoid books with no cultural content), although this amount is lower than the cultural connoisseurs. As one could reasonably expect from the youngest class, members of this group show the greatest willingness to pay for increases in aggregated critical review score, perhaps due to the fact that young people are more attuned to sourcing reviews from various sources on the internet. Finally, this group's overall willingness to pay for a book is similar to the recommended retail prices found on the market today. This is consistent with the fact that members of this group are willing to switch to alternative book formats should they be available and attractively priced. Analysis of the membership functions indicate this group contains individuals who read the widest variety of books out of the three classes presented.

7.8 Chapter summary

This chapter has served to examine all the hypotheses developed in Chapter 4 that were proposed as potential determinants of demand for cultural experience goods. Via the use of binary logit, multinomial logit and latent class models we have applied these hypotheses to our chosen category of cultural experience goods, books, in order to gain valuable insights into how consumers make their reading choices.

From the results of our analysis three distinct 'classes' of reader emerged, namely: 'popular readers', 'cultural connoisseurs' and 'technological adopters.' It is suggested that the results of the modelling approach presented in this chapter can be used by industry stakeholders and cultural policy makers alike

to help gain a better understanding of how consumers reach their book buying decisions, a topic to which our attention is now turned.

8 Conclusions and ideas for further research

This thesis aimed to advance our understanding of the determinants of demand for cultural goods. On a theoretical level, the distinction between cultural goods and other market goods is well established. So too is the proposition that cultural goods have the potential to embody a cultural value that exists independently of its economic value. It was suggested, however, that the difficulties associated with quantifying and incorporating the cultural nature of a good into models of choice and valuation often resulted in its exclusion from economic analysis. While efforts to better understand the consumer choice of cultural goods have certainly advanced over recent years, studies that fail to account for the unique characteristics of such goods adequately are of limited use to cultural practitioners and other industry stakeholders.

With these issues in mind, two contributions to the literature on the consumer choice of cultural goods were proposed. Firstly, we aim to provide empirical support to the theoretical proposition regarding the existence of a cultural value that is distinct from economic value. Following Rizzo and Throsby (2006), who posit that cultural value can be broken down into a number of component parts, we develop an economic model to compare a series of cultural and economic valuations. Specifically, we hypothesise that the cultural value of a good will only partially explain its assessed economic value. That is to say, there will be some dimensions of a good's cultural value that remain resistant to monetary valuations.

Secondly, we developed a general theoretical model of demand for cultural experience goods. Using a discrete choice framework, this model made the novel distinction between the cultural nature of a good and the other factors known to influence consumer choice, such as genre, the experiential nature of the good, the role of taste development and technological change. A series of hypotheses relating to each of these traits was then developed. Crucially, this modelling strategy enabled the examination of how variations in the cultural

nature of good influence consumer choice, both for the general purchasing population and across different groups of consumer. Furthermore, it also permitted the examination of how changes in the cultural nature of a good influence a consumer's likelihood to choose products with a range of specific attributes. The hypotheses developed in the general theoretical model of demand were subsequently tested on our chosen category of cultural experience goods, books. A summary of the results of these tests now follows. We then conclude the thesis with a look at the implications for stakeholders in the cultural industries, as well as suggesting ideas for future research.

8.1 Summary of principal results

As discussed, the first of the two empirical investigations contained within this thesis concerned the long standing proposition that the value of a cultural good (in our case, books) has the potential to contain both a cultural and economic component. Via a survey of readers conducted at the 2016 Brisbane Writers Festival we found evidence to support this proposition. Readers were able to incorporate the aesthetic (in terms of imagination) value of a book into their willingness to pay judgements, indicating that they are able to put a price on a book's ability to stir the imagination. Other cultural value dimensions that were highly valued by readers (namely: educational, aesthetic: beauty, social: for others, symbolic: for others and historical) were not, however, incorporated into economic valuations. Of particular note was the fact that all three of the dimensions designed to elicit cultural valuations on behalf of others (social, symbolic and spiritual) were found not to drive willingness to pay, despite relatively high mean survey judgements. This suggests that although readers are able to appreciate the fact that books have the potential to offer certain cultural values to others (regardless of their own assessments) they are either unwilling or unable to incorporate this into the price they are willing to pay for a particular book.

With empirical evidence regarding the cultural nature of books in mind, we then utilised a stated preference discrete choice experiment to test the hypotheses contained within Chapter 4’s general theoretical model of demand. Analysis of the results of the binary logit model found evidence to suggest that the average choice probability of purchasing a particular title increased with increasing levels of taste development for books as a whole. Breaking down our taste development variable into two separate components (accumulated taste and level of familiarity) enabled the examination of what drives these increases in purchasing probability. Increases in both accumulated taste for books (as measured by our variable indicating levels of knowledge and taste diversity) and our measure of long-term familiarity (exposure to reading as a child) were associated with an increase in the average probability of purchasing a book (with accumulated taste being the marginally stronger effect of the two). Our measure of recent familiarity (number of books read or part read in the last 30 days) was not, however, found to be a factor that has a statistically significant influence on how likely a reader is to purchase a book. It was suggested that as reading a book is a time consuming activity a ‘longer’ measure of recent familiarity may be required in order to fully explain the complex relationship between aggregate measures of consumption, taste development and purchasing probabilities.

An important goal of this thesis was to investigate the relationship between the cultural nature of a good and demand. Specifically, we examined the proposition that individuals value the protection and dissemination of national cultural content (our measure of the cultural nature of the good). Analysis of the MNL model suggested that, overall, readers were not only willing to pay a premium for books said to contain high levels of national cultural content, but also that they are willing to pay to avoid books with no discernible cultural content. The results of the LCM-MF indicate that this desire to read books of a cultural nature was primarily driven by the presence of a class of consumers that we labelled our cultural connoisseurs. This class of readers make up 27.2% of the market for books. Our largest class of readers (with a market share

of 42.8%), the technological adopters, also demonstrate a willingness to pay a premium for books that contain high degrees of national cultural content, albeit to a smaller extent than the cultural connoisseurs. The popular readers (who account for 30% of the market) were found, however, to pay no regard to the cultural nature of the book under consideration for purchase.

Along with investigating how the cultural nature of a book influences consumer choice we also wanted to examine how readers attempt to minimise the risks associated with consuming an experience good by looking for signals of its quality before making a purchasing decision. The results of the LCM-MF revealed a distinct heterogeneity with regard to how each of our classes of reader value increases in our chosen signal of quality, critical consensus. While all three groups positively value such increases, the technological adopters and popular readers are willing to pay approximately four times more than the cultural connoisseurs for each increase in the level of critical consensus.

As the name suggests, the popular readers were found to exhibit highly univorous consumption patterns, deriving high levels of utility from only genre fiction titles (our cognitively undemanding genre), coupled with relatively high levels of disutility from the three other genres on offer. The general lack of statistical significance of the parameters associated with genre for our cultural connoisseurs suggests that this class of readers average purchasing probability is not driven by the genre of the book. Such readers can therefore be considered to be omnivorous in their patterns of consumption. The technological adopters also show omnivorous tendencies. Readers in this class have a slight preference for genre fiction, but are not averse to reading any of the other genres on offer. There is little evidence, however, to suggest the presence of sophisticated readers (defined earlier as those who read solely from cognitively more demanding genres). Both the cultural connoisseurs and the technological adopters show a preference for reading books from a variety of genres that can be considered to suit all cognitive abilities.

Our final set of results relate to the role of format choice and technological

change. Once again the LCM-MF was employed and revealed a distinct heterogeneity with regard to how different classes of reader respond to the introduction of digital book formats. Cultural connoisseurs derive a high level of utility from all formats. It is noted, however, that paperback and hardback books generate almost twice the utility of ebooks (and almost three times that of audiobooks). This class can therefore be said to show a strong desire to consume books on traditional formats. Popular readers also show a similar aversion to newer formats, although it should be noted that the drivers of willingness to pay for this group of readers are attributes such as genre and critical consensus. Like the cultural connoisseurs, the technological adopters also derive a positive utility from reading on all formats. However, readers in this class derive similar levels of utility from reading books on both traditional and newer formats, suggesting they are much more open to reading both ebooks and audiobooks. Given that the technological adopters are the youngest of the three groups their willingness to read on digital formats is consistent with the notion that young people are generally more willing to adopt new technologies.

The differing attitude towards technological adoption among readers raises questions regarding whether or not patterns of adoption are driven solely by socio-demographic characteristics (such as age) or by the particular attributes that a book possesses. To investigate this issue further we examined the potential for books of a cultural nature to yield utility not only from consumption (that is to say, from reading the text contained within it) but *also* from being a publicly visible symbol of status. Given that digital formats tend to make information regarding the individual title that is being consumed less visible to others, both during and after consumption (ebooks and audiobooks are not, for example, stored in bookcases that can be seen by visitors to your home), one would expect that if this proposition held true books that were said to contain high degrees of national cultural content are more likely to be consumed on traditional formats. As the class of consumers who demonstrate the highest willingness to pay for books that contain high degrees of national cultural content (our cultural connoisseurs) are also willing to pay considerably more

for traditional book formats we find initial evidence to suggest that patterns of technological adoption are not solely driven by factors relating to a reader's socio-demographic characteristics.

A similar test was conducted with regard to examining the links between genre and patterns of technological adoption. It was proposed that some genres may be more amenable to being consumed on newer consumption formats than others due to factors relating to perceived 'quality' of the consumption experience. There was, however, little evidence from the results of the LCM-MF to support this proposition, with no particular genre seemingly predisposed to being read on either traditional *or* newer formats.

8.2 Stakeholder implications

It is hoped that the theoretical model developed in this thesis, along with the results of our empirical investigation, will be of significance to a number of interested parties. The flexible nature of the theoretical model, coupled with the distinction between the cultural and experiential nature of a good and the incorporation of technological change, renders it particularly amenable to the examination of different categories of goods from an array of cultural industries, thus furthering our understanding of the determinants of demand for cultural experience goods and expanding the literature on this topic. Furthermore, it is suggested that the specific results contained within this thesis have implications relating to both cultural policy organisations and the book industry. Both of these will now be discussed.

8.2.1 Implications for cultural policy

Cultural policy is an inherently broad concept. Craik (2007), however, offers a manageable definition, stating that cultural policy refers to the regulations of

the marketplace of ideas and creative practice. The author goes on to suggest:

This definition posits that cultural and creative activities occur in the community as part of everyday life. These practices, products and patterns of consumption become then object of government policy with the objective of shaping production and consumption, often in relation to the development of national culture or export potential. (p.83)

The general argument for government intervention in markets for cultural goods is, at face value, fairly straightforward. As Fullerton (1991, p.68) notes, “the preservation and display of artistic treasures provide national prestige, educational benefits, cultural enrichment, and nearly unlimited enjoyment through their inherent aesthetic value.” However, the economic arguments for such support are more nuanced and often centred on the potential for competitive markets to fail to produce and allocate cultural goods efficiently.¹⁰⁷ Peacock (2006) suggests a variety of economic rationales that serve to justify the presence of government intervention in cultural goods markets. Of particular relevance to this thesis is the idea that cultural goods have the potential to generate spillover benefits to consumers.¹⁰⁸ The author notes that “individual consumers may attach an option value to the arts, even though they personally do not attend arts events or view historical artefacts, notably in the form of the prestige conferred on a country or community from their existence” (2006, p.1133).

The existence of such an option value may be further complicated by the introduction of consumers with inter-dependent utility functions that

¹⁰⁷Recall that in order for market processes to operate efficiently they require fully-informed rational consumers. As discussed in Chapters 2 and 3 such assumptions often fail to hold among consumers of cultural goods.

¹⁰⁸Other justifications put forward include the proposition that improvements in the quality of cultural good choices can lead to positive externalities and the fact that cultural good consumption may also generate spillover benefits to other producers.

incorporate the possibility that satisfaction may be derived from other people's enjoyment of cultural goods (close friends and relatives, for example). On a similar note, Throsby (1994, p.24) suggests that "a traditional social welfare function that admits only individual utilities as its arguments may be too restrictive in the context of socially meritorious goods such as the arts." Such goods may instead contain benefits that accrue to no single individual thus warranting the use of some kind of 'augmented' social welfare function to ensure their efficient provision.

The empirical strategy contained within this thesis offers a unique opportunity to examine some of these proposed economic justifications for government intervention in cultural good markets. In particular, the results of our cultural value survey support the notion that cultural goods may carry with them an option value and/or spillover benefits. The identification of separate individualistic and collective valuations for titles written by our sample of authors suggests that individuals are able to conceptualise that books may generate an array of values to others, regardless of their own cultural value judgements.¹⁰⁹ Furthermore, the inability for readers to incorporate cultural value components that were highly valued on behalf of others into their own willingness to pay assessments provides a further case for the introduction of cultural policy measures which fully account for such spillover benefits.

A more direct quantification of public demand for such policy measures was also obtained from the results of the stated preference discrete choice experiment detailed in Chapter 7. By incorporating a measure of national cultural content into the discrete choice experiment we were able to examine how individuals value the protection and dissemination of such content. Our application to the market for books offers evidence to suggest that cultural policies that attempt to shape the production of goods that contain a nationalistic cultural element are indeed warranted. A key finding of the research is that 70% of readers

¹⁰⁹Recall that analysis of the mean survey responses (conducted in Chapter 5) for the three components of cultural value that were split into 'for self' and 'for others' revealed that in each case the values 'for others' were the higher of the two.

(both the cultural connoisseurs and the technological adopters) are willing to pay a premium to read books that contain a high degree of Australian cultural content.

The public's willingness to pay to read such titles suggests there is also a cultural argument (as well as the economic one discussed above) for government intervention in the industry. Books remain a vital conduit for the transmission of Australian ideas, symbols and ways of life. The results of our research therefore provide a direct justification for government policy designed to fund and maintain an active and engaged Australian literary culture. The use of a latent class model to differentiate between distinct groups of readers based upon a set of socio-demographic characteristics revealed that younger readers make up one of the two groups that value such content highly. This points towards the fact that, despite increasing competition from other sources of entrainment, books endure as a method through which Australian cultural content is disseminated to young people. Further applications of the model could be used to gain similar insights for other cultural industries.

8.2.2 Implications for the book industry

The research conducted within this thesis represents the first application of a latent class model to the market for books. As well as providing valuable insights as to how a variety of book characteristics influence consumer choice, the results also highlight a number of other findings that will be of use to industry stakeholders, particularly those tasked with the promotion and sale of books, such as publishers and booksellers. The critical role that taste development factors play upon an individual's reading habits was first highlighted. Encouraging children to read was found to have a particularly profound effect on an individual's likelihood of purchasing a book in the future, thus indicating how important it is for the industry as a whole to continually look for new ways to motivate young people to engage with books and reading.

As was discussed at length in Chapter 5, the digital transition has changed the way books are written, sold and read. In particular, the arrival of a suite of new content delivery formats, such as the ebook and audiobook, have left many wondering what the future holds for traditional book formats. This uncertainty is perpetuated by a lack of existing empirical research on the industry. The results of our empirical application suggest that those forecasting the imminent demise of the printed book appear to have been premature in their predictions. There remain two distinct groups of readers (accounting for over half of the market) that remain steadfast in their preference for traditional formats. However, the presence of a large, clearly definable group of consumers (the technological adopters) who are open and willing to pay to read (and listen) to books on newer formats is a clear indication that the digital transition is likely to continue. If preferences for individual formats remain constant during the life of a reader, the fact that younger readers are powering this transition means one could reasonably expect to see the market shares of paperback and hardback books to be continually eroded over the coming years. Such findings have a variety of implications for book publishers, who will need to incorporate the adoption of newer digital formats into their strategic planning, or risk being left behind in an ever changing marketplace.

This research also examined the possibility that patterns of technological adoption are governed in some way by factors relating to attributes of the book itself, as opposed to the socio-demographic characteristics of the reader. Traditional and digital forms offer fundamentally different consumption experiences (take, for example, the ability to display paperback books on a shelf in your home or the portability of ebooks and audiobooks), gaining a better understanding of what attributes drive people to read on different formats will enable new insights regarding the pace and trajectory of the digital transition to be made. To this end, some evidence was found to suggest that books of a cultural nature are more likely to be purchased on traditional formats. Readers who value such titles highly are willing to pay considerably more to read them on paperback and hardback formats, alluding to the possibility that attributes

unique to the book in question may influence format choice. Making causal inferences regarding the link between the attributes of a book and format choice such as these are undoubtedly complicated by a variety of confounding factors, however it is suggested that the research contained within this thesis can be used to motivate subsequent instigations into the less tangible factors that influence format choice for a variety of cultural experience goods.

A measure of critical consensus (which took the form of an aggregated critical review score) was integrated into the discrete choice experiment. It is interesting to note that this attribute is valued the highest by members of our youngest class. Since such aggregated measures are commonly sourced from the internet (and are a relatively new metric with which the quality of a cultural good can be assessed), it makes intuitive sense that our younger technological adopters were more attuned to such quality measures.¹¹⁰ For those looking to promote titles aimed at a younger demographic the results here highlight the importance of such metrics to their marketing strategies. Our cultural connoisseurs (readers who are inclined to read books with high degrees of Australian cultural content), on the other hand, are willing to pay much less for each incremental upwards step in critical acclaim. With this in mind, it may well be worth promoting titles aimed at this audience via other signals of product quality (such as word of mouth and the like).

Results pertaining to the price sensitivity of our different groups of readers also provides valuable information to industry stakeholders. It is clear that the cultural connoisseurs derive the highest utility from reading. This translates to a willingness to pay for printed books that is approximately twice the average selling price of most paperback titles. Given the lack of any discernible price discrimination in the book industry, it is evident that this particular group gains a considerable consumer surplus from reading. If publishers of books that

¹¹⁰One potentially interesting extension to the analysis would therefore be to incorporate other signals of quality into our experiential design. In particular, it is posited that the increasing prevalence of ‘viral marketing’ techniques and social contagion may offer new ways for consumers to overcome the uncertainty associated with purchasing experience goods.

appeal to readers of this group were able to formulate a pricing strategy that specifically targets this segment, then (assuming readers are not willing to wait for a second-hand copy to appear on the market) it is possible that some of this reader surplus could be transferred to publishers, authors and booksellers. By far the most price sensitive group were the popular readers. Given this group's desire to consume only genre fiction titles, booksellers and publishers tasked with the promotion of such titles should beware of the limited scope that they have in terms of pricing. The group of readers who are open to reading ebooks and audiobooks demonstrates a similar willingness to pay for books across all formats. We therefore have evidence to suggest that people value the convenience and portability that such formats have to offer, and the point of difference between digital and traditional formats is not necessarily solely based on price.

8.3 Ideas for further research

The flexible nature of the general model, coupled with the discrete choice experiment that was developed in order to test its predictions, means that the empirical application presented within this thesis can be easily recreated for a variety of cultural experience goods categories (such as music, movies and the like). Not only would the results of such applications be of use to cultural policy makers and stakeholders in each of the categories under examination, but a cross-comparison of results over a range of industries would further cultural economists' understanding of the determinants of demand for such goods.

As well as comparing results across a range of cultural industries, another potential extension would be to repeat the empirical application presented here in a number of different countries. Given the nation specific nature of the cultural content attribute, of particular interest would be to examine how cultural experience good consumers in different countries value the protection and dissemination of national cultural content. Repeating the same discrete

choice experiment in the United States, for example, would enable the comparison of demand for books with a high degree of cultural content in each country. The effects of the digital transition and the other insights permitted by the modelling strategy utilised in this thesis could also be compared on a cross-country basis.

One of the key findings in the empirical application to the market for books was that technological adoption in the industry is driven by younger consumers, while older readers demonstrate a preference for traditional book formats. This led to the conclusion that those predicting the demise of the printed book may be somewhat premature. It is important to note, however, that the results of this analysis are static in nature. Exploring how consumption habits change over the life of a reader would be a logical extension of the research presented in this thesis. Repeating the discrete choice experiment in subsequent years would permit the examination of how format preferences change over time and allow for a much more dynamic picture of technological adoption to emerge.

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Appendices

A The cultural value survey administered at the 2016 Brisbane Writers Festival



MACQUARIE UNIVERSITY SURVEY ON

The Cultural Value of Literature

BRISBANE WRITERS FESTIVAL 2016



Thank you for taking time to participate in this survey.
Please read the following instructions carefully before starting:

- There are 8 well-known authors included in this survey.
- For each author we have prepared a series of statements. We would like you to tick on a scale from 1 to 10 based on how strongly you agree or disagree with each statement (**1 indicating the strongest disagreement, 10 indicating the strongest agreement**).
- There are no "right" or "wrong" answers. We are interested in **YOUR OPINION**.
- **If you are not familiar with the work of a particular author please skip the statements involving this author and move to the next author.**
- Please make sure you fill out the personal information at the end of the survey.
- We estimate it will take you about 10 minutes to complete the entire survey.

All completed surveys will go into a draw to win one of three \$100 book vouchers. To be eligible for this prize draw, simply enter your contact details at the end of the survey.

About this survey

The survey is being conducted by researchers from Macquarie University, in association with the Brisbane Writers Festival and the Australia Council for the Arts. The results of the survey will be used for scientific analysis into the cultural and economic valuation of literature.

All data collected is completely confidential and will only be made available to researchers from Macquarie University and the Brisbane Writers Festival. Name and contact details will be stored separately by the Macquarie University research team and will only be used in order to contact you if you have won a prize. This information will **not** be used for marketing purposes. Results of the survey may be disseminated in reports (in conjunction with the Australia Council for the Arts and the Brisbane Writers Festival) and academic journal articles.

You must be aged 18 years or older to take this survey.

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics and Integrity (telephone: **02 9850 7854**; email: **ethics@mq.edu.au**).

Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome. Completion of this survey denotes consent to participate.

Your thoughts on literary fiction

Before we introduce our individual authors we would like to ask you some general questions regarding your attitude towards literary fiction. For the purpose of this survey we define literary fiction as follows:

Literary fiction is a category of fiction in the book trade that stands apart from genre fiction (romance, crime, science fiction, etc.), children's fiction, and other general categories. Books of literary fiction are usually thought to be "serious" in content and style. Such books attempt to communicate ideas, concepts, or feelings that transcend the structural elements of the story, e.g., the plot, the characters, the setting.

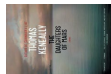
With this definition in mind, please evaluate the following statements about literary fiction:

STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
I tend to read works of literary fiction more often than other book genres.				
I regard works of literary fiction to be more a demanding read than other book genres.				
Australian literary fiction exists as a recognisable category, distinguishable from literary fiction in general.				
Works of literary fiction by Australian authors make an important contribution to Australian cultural identity and traditions.				
I believe it is important that works of literary fiction are made available (in schools and public libraries) for all to read.				

1. Thomas Keneally (Australia)



Photo credit: Eva Rendi



Please select which of the following books written by Thomas Keneally you have read:

If you have not read any books written by Thomas Keneally please proceed to the next author.

- ☐ The Place at Whitton (1964)
- ☐ The Fear (By the Line) (1965)
- ☐ Bring Larks and Heroes (1967)
- ☐ The Survivor (1969)
- ☐ The Chant of Jimmie Blacksmith (1977)
- ☐ Gossip from the Forest (1975)
- ☐ Confederates (1979)
- ☐ Schindler's Ark (Schindler's List) (1982)
- ☐ The Playmaker (1987)
- ☐ Act of Grace (1985)
- ☐ An Angel in Australia (2000)
- ☐ The Tyrant's Novel (2003)
- ☐ The Widow and Her Hero (2007)
- ☐ The People's Train (2009)
- ☐ The Daughters of Mars (2012)
- ☐ Shame and the Captives (2014)
- ☐ Napoleon's Last Island (2015)

Other(s), please state: _____

4

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement; 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE										NO OPINION
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
1 Books by this author are beautifully written.																					
2 The topics of this author's writing could be valuable in educating future generations.																					
3 Reading works by this author expands the imagination.																					
4 Writing by this author possesses a cultural significance for me.																					
5 Writing by this author possesses a cultural significance for other people.																					
6 This author's writing conveys spiritual messages to me.																					
7 This author's writing conveys spiritual messages to other people.																					
8 The subject matter that this author writes about helps to provide a connection with others.																					
9 The subject matter that this author writes about helps to provide a connection with the past.																					
10 Books written by this author help me to understand myself better as a human being.																					

11 Imagine a new book is being released by Thomas Keneally next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you able to borrow it from a friend or library, how much would you be willing to pay for this book?

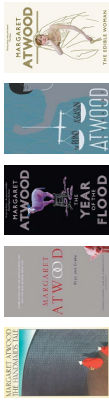
\$ _____

5

2. Margaret Atwood (Canada)



Photo credit: Larry D. Moore



Please select which of the following books written by Margaret Atwood you have read:
If you have not read any books written by Margaret Atwood please proceed to the next author.

- ☐ The Edible Woman (1969)
- ☐ Surfacing (1972)
- ☐ Lady Oracle (1976)
- ☐ Life Before Man (1979)
- ☐ Bodily Harm (1981)
- ☐ The Handmaid's Tale (1985)
- ☐ Cat's Eye (1988)
- ☐ The Robber Bride (1993)
- ☐ Alias Grace (1996)
- ☐ The Blind Assassin (2000)
- ☐ Oryx and Crake (2003)
- ☐ The Penelopiad (2005)
- ☐ The Year of the Flood (2009)
- ☐ MaddAddam (2013)
- ☐ The Heart Goes Last (2015)
- ☐ Hag-Seed (2016)

Other(s), please state: _____

6

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement; 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE									
	1	2	3	4	5	6	7	8	9	10	NO OPINION									
1	Books by this author are beautifully written.																			
2	The topics of this author's writing could be valuable in educating future generations.																			
3	Reading works by this author expands the imagination.																			
4	Writing by this author possesses a cultural significance for me .																			
5	Writing by this author possesses a cultural significance for other people .																			
6	This author's writing conveys spiritual messages to me .																			
7	This author's writing conveys spiritual messages to other people .																			
8	The subject matter that this author writes about helps to provide a connection with others .																			
9	The subject matter that this author writes about helps to provide a connection with the past .																			
10	Books written by this author help me to understand myself better as a human being.																			

11 Imagine a new book is being released by Margaret Atwood next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you able to borrow it from a friend or library, how much would you be willing to pay for this book?

\$ _____

7

3. Christos Tsiolkas (Australia)



Photo credit: John Tsiavis



Please select which of the following books written by Christos Tsiolkas you have read:

If you have not read any books written by Christos Tsiolkas please proceed to the next author.

- ☐ Loaded (1995)
- ☐ The Jesus Man (1999)
- ☐ The Devil's Playground (2002)
- ☐ Dead Europe (2005)
- ☐ The Slap (2008)
- ☐ Barracuda (2013)
- ☐ Merciless Gods (2014)

Other(s), please state: _____

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement, 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE									
	1	2	3	4	5	6	7	8	9	10	NO OPINION									
1	Books by this author are beautifully written.																			
2	The topics of this author's writing could be valuable in educating future generations.																			
3	Reading works by this author stirs the imagination.																			
4	Writing by this author possesses a cultural significance for me .																			
5	Writing by this author possesses a cultural significance for other people .																			
6	This author's writing conveys spiritual messages to me .																			
7	This author's writing conveys spiritual messages to other people .																			
8	The subject matter that this author writes about helps to provide a connection with others .																			
9	The subject matter that this author writes about helps to provide a connection with the past .																			
10	Books written by this author help me to understand myself better as a human being.																			

11 Imagine a new book is being released by Christos Tsiolkas next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you be able to borrow it from a friend or library, how much would you be willing to pay for this book?

\$ _____

4. Ian McEwan (United Kingdom)

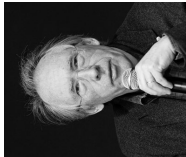
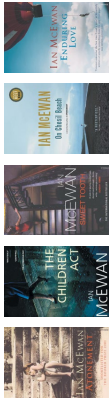


Photo Credit: Thesupermat



Please select which of the following books written by Ian McEwan you have read:

If you have not read any books written by Ian McEwan please proceed to the next author.

- ☐ The Cement Garden (1978)
- ☐ The Comfort of Strangers (1981)
- ☐ The Child in Time (1987)
- ☐ The Innocent (1990)
- ☐ Black Dogs (1992)
- ☐ Ending Love (1997)
- ☐ Amsterdam (1998)
- ☐ Atonement (2001)
- ☐ Saturday (2005)
- ☐ On Chesil Beach (2007)
- ☐ Solar (2010)
- ☐ Sweet Tooth (2012)
- ☐ The Children Act (2014)
- ☐ Nutshell (2016)

Other(s), please state: _____

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement; 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE										NO OPINION
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
1 Books by this author are beautifully written.																					
2 The topics of this author's writing could be valuable in educating future generations.																					
3 Reading works by this author stimulates the imagination.																					
4 Writing by this author possesses a cultural significance for me.																					
5 Writing by this author possesses a cultural significance for other people.																					
6 This author's writing conveys spiritual messages to me.																					
7 This author's writing conveys spiritual messages to other people.																					
8 The subject matter that this author writes about helps to provide a connection with others.																					
9 The subject matter that this author writes about helps to provide a connection with the public.																					
10 Books written by this author help me to understand myself better as a human being.																					

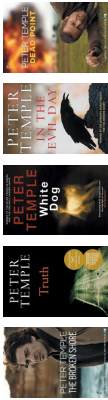
11 Imagine a new book is being released by Ian McEwan next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you be able to borrow it from a friend or library, how much would you be willing to pay for this book?

\$ _____

5. Peter Temple (Australia)



Photo credit: Bryan Erik Pedersen



Please select which of the following books written by Peter Temple you have read:
If you have not read any books written by Peter Temple please proceed to the next author.

- ☐ Bad Debts (1996)
- ☐ An Iron Rose (1998)
- ☐ Shooting Star (1999)
- ☐ Black Tide (1999)
- ☐ Dead Point (2000)
- ☐ In the Evil Day (2002)
- ☐ White Dog (2003)
- ☐ The Broken Shore (2005)
- ☐ Truth (2009)
- Other(s), please state: _____

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement, 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE										NO OPINION
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
1 Books by this author are beautifully written.																					
2 The topics of this author's writing could be valuable in educating future generations.																					
3 Reading works by this author stimulates the imagination.																					
4 Writing by this author possesses a cultural significance for me.																					
5 Writing by this author possesses a cultural significance for other people.																					
6 This author's writing conveys spiritual messages to me.																					
7 This author's writing conveys spiritual messages to other people.																					
8 The subject matter that this author writes about helps to provide a connection with others.																					
9 The subject matter that this author writes about helps to provide a connection with the public.																					
10 Books written by this author help me to understand myself better as a human being.																					

11 Imagine a new book is being released by Peter Temple next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you able to borrow it from a friend or library, how much would you be willing to pay for this book?

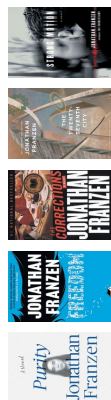
\$ _____

1213

6. Jonathan Franzen (United States)



Photo credit: Hank Kordas



Please select which of the following books written by Jonathan Franzen you have read:

If you have not read any books written by Jonathan Franzen please proceed to the next author.

- ☐ The Twenty-Seventh City (1988)
- ☐ Strong Motion (1992)
- ☐ The Corrections (2001)
- ☐ Freedom (2010)
- ☐ Purity (2015)
- Other(s), please state: _____

14

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement; 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE										NO OPINION
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
1 Books by this author are beautifully written.																					
2 The topics of this author's writing could be valuable in educating future generations.																					
3 Reading works by this author expands this author's imagination.																					
4 Writing by this author possesses a cultural significance for me.																					
5 Writing by this author possesses a cultural significance for other people.																					
6 This author's writing conveys spiritual messages to me.																					
7 This author's writing conveys spiritual messages to other people.																					
8 The subject matter that this author writes about helps to provide a connection with others.																					
9 The subject matter that this author writes about helps to provide a connection with me.																					
10 Books written by this author help me to understand myself better as a human being.																					

11 Imagine a new book is being released by Jonathan Franzen next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you able to borrow it from a friend or library, how much would you be willing to pay for this book?

\$ _____

15

7. Tim Winton (Australia)



Photo credit: Pontificia Universidad Católica de Chile



Please select which of the following books written by Tim Winton you have read:

If you have not read any books written by Tim Winton please proceed to the next author.

- ☐ An Open Swimmer (1982)
- ☐ Shallows (1984)
- ☐ That Eye, The Sky (1986)
- ☐ In the Winter Dark (1988)
- ☐ Cloudstreet (1991)
- ☐ The Riders (1994)
- ☐ Blueback (1998)
- ☐ Dirt Music (2001)
- ☐ Breath (2008)
- ☐ Eyrie (2013)

Other(s), please state: _____

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement; 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE										NO OPINION
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
1 Books by this author are beautifully written.																					
2 The topics of this author's writing could be valuable in educating future generations.																					
3 Reading works by this author expands the imagination.																					
4 Writing by this author possesses a cultural significance for me.																					
5 Writing by this author possesses a cultural significance for other people.																					
6 This author's writing conveys spiritual messages to me.																					
7 This author's writing conveys spiritual messages to other people.																					
8 The subject matter that this author writes about helps to provide a connection with others.																					
9 The subject matter that this author writes about helps to provide a connection with the public.																					
10 Books written by this author help me to understand myself better as a human being.																					

11 Imagine a new book is being released by Tim Winton next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you able to borrow it from a friend or library, how much would you be willing to pay for this book?

\$ _____

8. Kate Grenville (Australia)



Photo credit: Kathleen Smith



Please select which of the following books written by Kate Grenville you have read:

If you have not read any books written by Kate Grenville please proceed to the next author.

- ☐ Lili's Story (1985)
- ☐ Dreamhouse (1986)
- ☐ Joan Makes History (1988)
- ☐ Dark Places (Albion's Story) (1994)
- ☐ The Idea of Perfection (1999)
- ☐ The Secret River (2005)
- ☐ The Lieutenant (2008)
- ☐ Sarah Thornhill (2011)
- Other(s), please state: _____

Please tick for each of the following statements regarding this author how strongly you agree or disagree (1 indicating the strongest disagreement, 10 indicating the strongest agreement):

	STRONGLY DISAGREE										STRONGLY AGREE									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
1 Books by this author are beautifully written.																				
2 The topics of this author's writing could be valuable in educating future generations.																				
3 Reading works by this author sparks the imagination.																				
4 Writing by this author possesses a cultural significance for me.																				
5 Writing by this author possesses a cultural significance for other people.																				
6 This author's writing conveys spiritual messages to me.																				
7 This author's writing conveys spiritual messages to other people.																				
8 The subject matter that this author writes about helps to provide a connection with others.																				
9 The subject matter that this author writes about helps to provide a connection with the past.																				
10 Books written by this author help me to understand myself better as a human being.																				

11 Imagine a new book is being released by Kate Grenville next week. Furthermore, the book is only being released in a paperback format (i.e. it will not be released as an ebook or in any other format). Knowing that you will not be receiving the book as a gift, nor are you able to borrow it from a friend or library, how much would you be willing to pay for this book?

\$ _____

We need to know some basic details about you

Please tell us your gender:

☐ Male ☐ Female

What is your age?

☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65-74 ☐ older than 74

What is your highest level of education?

- ☐ Primary school
☐ Junior secondary school
☐ HSC or equivalent
☐ Post-secondary diploma, certificate, etc.
☐ Bachelors degree
☐ Postgraduate degree

What is your annual **after-tax** household income?

- ☐ \$1-149 per week (\$1-\$7,799 per year)
☐ \$150-249 per week (\$7,800-\$12,999 per year)
☐ \$250-399 per week (\$13,000-\$20,799 per year)
☐ \$400-599 per week (\$20,800-\$31,199 per year)
☐ \$600-799 per week (\$31,200-\$41,599 per year)
☐ \$800-999 per week (\$41,600-\$51,999 per year)
☐ \$1000-1299 per week (\$52,000-\$67,599 per year)
☐ \$1300-1599 per week (\$67,600-\$83,199 per year)
☐ \$1600-1999 per week (\$83,200-\$103,999 per year)
☐ \$2000 or more per week (\$104,000 or more per year)

On average, how many books do you read per month?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10+

Are you an Australian resident or international visitor to the writer's festival?

Australian resident: postcode _____ International visitor: country _____

(Optional) If you would like to be entered into the draw to win 1 of 3 \$100 Australian book vouchers, please fill in the following information:

Name: _____ Email OR Phone Number: _____

Please note your name and email address will only be used contact you in the event you are chosen as one of the winners of our prize draw. Winners will be notified via email no later than October 31st 2016.





Thank you for filling out the questionnaire.

B Choice sets generated by the Bayesian efficient experimental design

Task 1 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Genre Fiction	Literary Fiction	General Non-fiction	Literary Non-fiction
Critical Consensus	8 out of 10	8 out of 10	6 out of 10	4 out of 10
Level of Australian Cultural Content	High	None	None	High
Price of Book (in AU\$)	\$15.00	\$22.50	\$22.50	\$22.50

The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 2 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Non-fiction	Literary Non-fiction	Genre Fiction	Literary Fiction
Critical Consensus	4 out of 10	2 out of 10	8 out of 10	2 out of 10
Level of Australian Cultural Content	Low	High	None	High
Price of Book (in AU\$)	\$22.50	\$7.50	\$15.00	\$7.50

The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 3 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	General Non-fiction	Genre Fiction	Literary Fiction	Literary Fiction
Critical Consensus	6 out of 10	6 out of 10	6 out of 10	2 out of 10
Level of Australian Cultural Content	None	High	Low	High
Price of Book (in AU\$)	\$7.50	\$30.00	\$30.00	\$7.50

The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 4 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Genre Fiction	Literary Fiction	Literary Non-fiction	Literary Fiction
Critical Consensus	4 out of 10	4 out of 10	8 out of 10	4 out of 10
Level of Australian Cultural Content	High	Low	None	None
Price of Book (in AU\$)	\$15.00	\$30.00	\$15.00	\$22.50




The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 5 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Fiction	Literary Non-fiction	Literary Non-fiction	Genre Fiction
Critical Consensus	8 out of 10	2 out of 10	4 out of 10	2 out of 10
Level of Australian Cultural Content	High	Low	Low	None
Price of Book (in AU\$)	\$30.00	\$15.00	\$30.00	\$15.00





The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 6 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Non-fiction	General Non-fiction	General Non-fiction	Genre Fiction
Critical Consensus	2 out of 10	8 out of 10	2 out of 10	6 out of 10
Level of Australian Cultural Content	Low	High	None	Low
Price of Book (in AU\$)	\$7.50	\$30.00	\$7.50	\$30.00

The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 7 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	General Non-fiction	Literary Fiction	Genre Fiction	General Non-fiction
Critical Consensus	6 out of 10	8 out of 10	2 out of 10	4 out of 10
Level of Australian Cultural Content	Low	None	High	Low
Price of Book (in AU\$)	\$22.50	\$7.50	\$15.00	\$15.00

The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 8 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Non-fiction	General Non-fiction	Genre Fiction	Genre Fiction
Critical Consensus	6 out of 10	6 out of 10	2 out of 10	6 out of 10
Level of Australian Cultural Content	None	High	Low	Low
Price of Book (in AU\$)	\$22.50	\$7.50	\$22.50	\$30.00



The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 9 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Fiction	General Non-fiction	Literary Non-fiction	General Non-fiction
Critical Consensus	2 out of 10	2 out of 10	8 out of 10	6 out of 10
Level of Australian Cultural Content	None	Low	High	None
Price of Book (in AU\$)	\$7.50	\$22.50	\$22.50	\$30.00




The reading option I would choose is:

- ☐ Hardback Book
☐ Paperback Book
☐ ebook
☐ Audiobook
☐ None of the above

Task 10 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Genre Fiction	Literary Non-fiction	Literary Fiction	General Non-fiction
Critical Consensus	2 out of 10	4 out of 10	6 out of 10	8 out of 10
Level of Australian Cultural Content	Low	Low	Low	High
Price of Book (in AU\$)	\$15.00	\$22.50	\$30.00	\$7.50




The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 11 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Fiction	Genre Fiction	General Non-fiction	Literary Non-fiction
Critical Consensus	8 out of 10	6 out of 10	4 out of 10	8 out of 10
Level of Australian Cultural Content	High	None	High	Low
Price of Book (in AU\$)	\$30.00	\$15.00	\$7.50	\$22.50


The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

Task 12 of 12

Given the characteristics of each book presented in the table below, **please select which of the 4 reading options** you would choose to purchase. **If none of the reading options appeal to you, please select 'none of the above'.**

(If required, a reminder of definitions for each of the alternatives and attributes listed in the table can be found by clicking [here](#))

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	General Non-fiction	Genre Fiction	Literary Fiction	Literary Non-fiction
Critical Consensus	4 out of 10	4 out of 10	4 out of 10	8 out of 10
Level of Australian Cultural Content	None	None	High	None
Price of Book (in AU\$)	\$30.00	\$15.00	\$7.50	\$15.00

The reading option I would choose is:

- ☐ Hardback Book
- ☐ Paperback Book
- ☐ ebook
- ☐ Audiobook
- ☐ None of the above

C Instructions provided to discrete choice experiment respondents

Instructions

In this survey you will be shown a number of hypothetical books you could potentially purchase to read for yourself.

You will be shown 4 of these hypothetical books at a time, each of these books has different characteristics (such as format, genre, price, etc.).

Each time we show you a group of 4 hypothetical books, **we want you to choose which of the 4 books you would be most likely to purchase in real life.**

Before you start, let's look at an example.

The table below gives an example of a set of 4 hypothetical books (reading options) for you to choose from. Each of these reading options has different characteristics.

We want to know, given the different characteristics, which of these books (hardback, paperback, ebook or audiobook) you would be **most likely to purchase** in real life.

If none of the hypothetical books appeal to you then you will also be able to select 'none' as a purchasing option.

	Reading Options			
	 Hardback Book	 Paperback Book	 ebook	 Audiobook
Genre of Book	Literary Non-fiction	General Non-fiction	Genre Fiction	Literary Fiction
Critical Consensus	2 out of 10	8 out of 10	6 out of 10	4 out of 10
Level of Australian Cultural Content	None	High	None	Low
Price of Book (in AU\$)	\$15.00	\$7.50	\$22.50	\$30.00

To assist you in completing the survey we will first outline the definitions of each of the characteristics mentioned in the table of reading options.

These definitions will also be available for you reference throughout the survey should you need them at any time.

Reading Options

Hardback Book - A hardback book (also known as a hardcover or hardbound book) is bound with rigid protective covers. Hardback books are considered to be more durable than paperback books, however they are also heavier and therefore less portable than their paperback equivalents.

Paperback Book - A paperback book is characterised by a thick paper (or paperboard) cover. Paperback books are flexible, often held together by glue. Paperback books are generally lighter and smaller than their hardback equivalents, however they are likely to be less durable.

ebook - An ebook (or electronic book) is a book that has been made available in digital form, consisting of text, images or both. ebooks are readable on computers, smartphones and dedicated ereader devices such as Amazon's Kindle or the Kobo.

Audiobook - An audiobook (or talking book) is a recording of a book's text being read aloud. Audiobooks are sold in the form of downloadable files which can be listened to on computers, smartphones and most stereo equipment (for example at home or in-car).

Genre of Book

Literary Fiction - Literary fiction books are works of fiction that are said to possess literary merit. That is to say, such books tend to incorporate social or political commentary and focus on the human condition. It is often said that works of literary fiction are character driven and focus more on overarching themes, rather than on plot. **Examples of literary fiction include *The Great Gatsby* by F. Scott Fitzgerald and *To Kill a Mockingbird* by Harper Lee.**

Genre Fiction - Genre fiction (also known as popular fiction) are plot-driven works of fiction, written with the intent of fitting into a specific literary genre (such as crime, science fiction, romance, horror, etc.). **Examples of genre fiction include: *It* by Stephen King and *The Girl with the Dragon Tattoo* by Stieg Larsson.**

Literary Non-fiction – Literary non-fiction (also known as creative or narrative non-fiction) is a genre of books that uses literary styles and techniques to create factually accurate narratives. **Examples of literary non-fiction include *In Cold Blood* by Truman Capote and *Wild: Lost to Found on the Pacific Crest Trail* by Cheryl Strayed.**

General Non-fiction – General non-fiction (also known as trade non-fiction) are non-fiction books that are published for general readership. General non-fiction books are not generally targeted for a specialised or niche reader, instead they are books that are aimed for a wider audience. **Examples of general non-fiction include A Brief History of Time by Stephen Hawking and No Logo by Naomi Klein.**

Critical Consensus

Critical consensus is a single number designed to encapsulate an overall measure of critical opinion towards the hypothetical book in question.

Critical consensus scores should be interpreted as follows:

2 out of 10 - Indicates the book received generally **very negative reviews**

4 out of 10 - Indicates the book received generally **negative reviews**

6 out of 10 - Indicates the book received generally **positive reviews**

8 out of 10 - Indicates the book received generally **very positive reviews**

Level of Australian Cultural Content

The level of Australian cultural content is a characteristic designed to capture to what degree the hypothetical book in question conveys uniquely Australian ideas, symbols and ways of life. Books that contain Australian cultural content help to build a collective Australian identity and influence the nation's cultural practices.

The level of Australian cultural content should be interpreted as follows:

None – Books with no Australian cultural content contain no uniquely Australian ideas, symbols and ways of life and therefore **do not contribute** to building a collective Australian identity

Low - Books with a low level of Australian cultural content contain some references to uniquely Australian ideas, symbols and ways of life and therefore **contribute in a small way** to building a collective Australian identity

High - Books with a high level of Australian cultural content are primarily centered on the communication of uniquely Australian ideas, symbols and ways of life and therefore **contribute greatly** to building a collective Australian identity

Price of Book (in AU\$)

This the price to purchase the book in question.

Note that for this price you receive your own copy of the book on the format listed (hardback, paperback, ebook or audiobook).

You are able to read the book an unlimited amount of times at your leisure.

You will now begin the survey.

Please take your time and consider each of your responses carefully.

D Ethics approvals

30/01/2018

Subject: Approved - 5201600030
From: "Mrs Yanru Ouyang" <yanru.ouyang@mq.edu.au>
Sent: 17/03/2016 4:51:19 PM
To: "Professor David Throsby" <david.throsby@mq.edu.au>;
CC: "Mr Paul Crosby" <paul.crosby@mq.edu.au>;

Dear Professor Throsby,

Re: 'Preference Formation and Demand for Cultural Experience Goods: An Application to the Market for Books.'

Reference No.: 5201600030

Thank you for your recent correspondence. Your response has addressed the issues raised by the Faculty of Business & Economics Human Research Ethics Sub Committee. Approval of the above application is granted, effective "17/03/2016". This email constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Mr Paul Crosby
Professor David Throsby

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 17th Mar. 2017

1/3

Ethics Amendment Ref: 5201400498

APPROVED

By Fran Thorp at 10:22 am, Sep 05, 2016

Paul Crosby

Fran Thorp

Fri 19/08/2016 12:15 PM

To: Ethics Secretariat <ethics.secretariat@mq.edu.au>;

2 attachments (2 MB)

Ethics Amendment Request 190816.docx; Survey on Authors 2016 Brisbane.docx;

Hello,

Please find attached ethics amendment form and associated documents concerning reference number 5201400498.

Should you require any further information please do not hesitate to contact me.

Kind regards,
Paul

Paul Crosby
PhD Scholar & Sessional Academic
Department of Economics
Level 4, E4A
Macquarie University
NSW 2109 Australia
mq.edu.au



MACQUARIE
University
SYDNEY AUSTRALIA

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