The Endowment Effect and other biases in creative goods transactions

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Vorráðstefna Viðskiptafræðistofnunar Háskóla Íslands:
Erindi flutt á ráðstefnu í apríl 2011
Ritrýnd grein
Reykjavík: Viðskiptafræðistofnun Háskóla Íslands
ISSN 1670-8288
THE ENDOWMENT EFFECT AND OTHER BIASES IN CREATIVE GOODS TRANSACTIONS

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ABSTRACT

The Endowment Effect, which has been observed to occur when the ownership of a good leads the consumer/owner to value the good more than its market value, has been described as a manifest gap between the willingness to accept (WTA) and the willingness to pay (WTP) in a variety of forms of property transactions. The paper traces the development of endowment effect research, its entrance into IP and Copyright research and suggests further research that may enhance the existing understanding of the effect and the mechanisms at work in value formation in creative works.

INTRODUCTION

The Endowment effect, an anomaly\(^1\) that has been observed to occur when the ownership of a good leads the consumer/owner to value the good more than its market value (Tom, 2004), has been described as a manifest gap between the willingness to accept (WTA) and the willingness to pay (WTP) in a variety of forms of property transactions (Buccafusco & Sprigman, 2010b).

Research into preference reversals that preceded experiments that established the Endowment Effect indicated that inconsistencies showing preference reversals “suggest that no optimization principles of any sort lie behind the simplest of human choices and that the uniformities in human choice behaviour which lie behind market behaviour may result from principles which are of a completely different sort from those generally accepted” (Grether & Plott, 1979, p. 623).

This anomaly to the established Coase theorem is seen by Kahneman, Knetsch and Thaler as a manifestation of “loss aversion,” the: “generalization that losses are weighted substantially more than objectively commensurate gains in the evaluation of prospects and trades. An implication of this asymmetry is that if a good is evaluated as a loss when it is given up and as a gain when it is acquired, loss aversion will, on average, induce a higher dollar value for owners than for potential buyers, reducing the set of mutually accepted trades” (Kahneman, Knetsch, & Thaler, 1990, p. 1326-1328).

The significance of these findings in general economic terms is that the existence of the endowment effect reduces the gains from trade. Due to an inertia caused by loss aversion, potential traders are more reluctant to trade, resulting in a lower volume of trade than would occur when preferences are independent of endowment.

In the last couple of years Intellectual Property Right and Copyright scholars have expressed interest

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\(^1\) An anomaly in economic terms, seen here as empirical results that do not comply with the paradigmatic frame of the problem and are difficult to rationalize within that frame.
in and conducted research into the manifestations of the endowment effect and its underlying and precipitating biases, Loss Aversion and the Status-quo Bias. This has confirmed that the effect, and its sub-optimizations of transactions, is highly observable in IP and Copyright licensing. Additionally, this research has brought forth new suggestions of effective causes that may expose heightened propensities for the anomaly in the IP realm. W. Gordon’s Harm-Benefit Distinction (Gordon, 2009) and The Creativity Effect (Buccafusco & Sprigman, 2010a) provide interesting addendum to the body of research and bring it into a new forum that may highlight unique conditions of objects of creation in transactions.

However, the findings available so far, leave room for alternative interpretations and refinements of methods and conclusions. It its concluding section this paper will present a suggestion for research that will augment existing work and introduce alternative views on how evaluation of creative goods by individual copyright holders may contain yet another element that constitutes an underlying bias for the endowment effect.

AN OVERVIEW OF THE ENDOWMENT EFFECT RESEARCH

Classical economics may be said to owe its distinction amongst social sciences to a tenet that endorses established, well defined preferences consistent with rational choice as stable, if not universal, behaviour (Kahneman, Knetsch, & Thaler, 1991). However, as the introduction of behavioural research into economics has revealed, people’s valuation of goods or states of affairs is highly dependent on the way those goods are framed (Korobkin, 2003). Prospect Theory, the groundbreaking work of behavioural economics, demonstrates how individuals evaluate potential losses and gains and its aim is to describe or predict behaviour, not characterize optimal behaviour. By establishing that the value persons attach to objects or items is not endogenous and thus affirming inconsistencies in economic theory that make systematic errors in predicting behaviour (or “bounded rationality”, see H. Simon (Simon, 1957)), Prospect Theory provides a descriptive model that attempts to model real-life choices instead of optimal decisions in situations where persons have to choose between alternatives that involve risk.

Endowment effect in general

A pattern, that came to be recognized as the Endowment Effect was first described by Richard Thaler as: “…the fact that people often demand much more to give up an object than they would be willing to pay to acquire it” (Thaler, 1980, p. 41). Thaler pointed out that Kahneman and Tversky had in fact suggested the reverse to the economic axiom (all costs are (in some sense) opportunity costs and should therefore be treated as equivalent to out-of-pocket costs) when they incorporated gains and losses as substitutes (for opportunity- and out-of-pocket costs) and precipitated the loss function against the gains function in their descriptive model (Prospect Theory, 1979). Thaler proposed that: “This shape of the value function implies that if out-of-pocket costs are viewed as losses and opportunity costs are viewed as foregone gains, the former will be more heavily weighted” (Thaler, 1980, p. 44).

By introducing a “certain degree of inertia” in the choice process (accounting for a higher evaluation of goods already in the individual’s ownership) Thaler concluded that: “This follows because removing a good from the endowment creates a loss while adding the same good (to an endowment without it) generates a gain. Henceforth, I will refer to the underweighting of opportunity costs as the endowment effect.” (1980, p. 44).

Thaler identified and modelled further components that he suggested affect consumer choice, such as the sunk-cost effect, regret, pre-commitment and self-control, all of which suggest that theories of
rational man and maximum utility discount the state of man. Similarly, Kahneman and Tversky, through their investigation of multi-attribute extension of prospect theory, developed concepts of additional attributional behaviour anomalies. These components, or derivatives and modified conceptions of these components, will be discussed in short at a later stage in this article. However, it is necessary to point out that a critical element of Prospect theory is framing, or the dependence of choice on the description and interpretation of decision problems as expatiated on in Choices, Values and Frames (Kahneman & Tversky, 1984).

Frame and framing is a description of “decision problems at two levels: the formulation to which decision makers are exposed” and “the interpretation that they construct for themselves. Thus framing is a common label for two very different things; an experimental manipulation and a constituent activity of decision making”(Kahneman & Tversky, 2000, p. xiv) and the aforementioned components are seen as frames in the latter definition.

![Figure 1. A suggestion of a multi-variate and reciprocal relationship of specific cognitive biases](image)

* People expect the pain of relinquishing a good to be greater than the pleasure of acquiring it

** The ownership of a good leads the consumer/owner to value the good more than its market value

In 1990 Kahneman, Knetsch and Thaler published a paper that contained the first experimental test of the Endowment Effect (Kahneman, et al., 1990). Earlier that same year Tversky and Thaler (Tversky & Thaler, 1990) had examined an inconsistency involving risky prospects that had aroused interest for considerable time. This inconsistency, preference reversal, studied and experimented on by, amongst others, (Becker, DeGroot, & Marschak, 1964; Grether & Plott, 1979; Karni & Safra, 1987; Lichtenstein & Slovic, 1971; Tversky, Sattath, & Slovic, 1988; Tversky, Slovic, & Kahneman, 1990), demonstrated variations of situations where both buying and selling prices of gambles were more highly correlated with payoffs than with chances of winning, whereas choices between gambles (and ratings of their attractiveness) were more highly correlated with the probabilities of winning and losing than with the payoffs (Tversky & Thaler, 1990). Tversky and Thaler concluded that the causes for the preference reversal phenomenon are driven primarily by “the discrepancy between choice and pricing, which in turn is induced by scale compatibility.” (1990, p. 209).

This phenomenon, or cluster of phenomena, challenges the traditional assumption that the decision maker has a fixed preference order that is captured accurately by any reliable elicitation procedure.”
(Tversky & Thaler, 1990) Or, in the words of Grether and Plott: “It [the inconsistencies that show preference reversals] suggests that no optimization principles of any sort lie behind the simplest of human choices and that the uniformities in human choice behaviour which lie behind market behaviour may result from principles which are of a completely different sort from those generally accepted.” (Grether & Plott, 1979, p. 623; Tversky, et al., 1990, p. 209).

Experimental testing of the endowment effect was carried out by measuring the willingness to accept (WTA) and the willingness to pay (WTP) in a benchmark experimental design (Kahneman, et al., 1990). Consumption objects were given to half the participants in the experiment, the other half were set up as buyers. Markets for the objects (coffee mugs) were then conducted. The WTA greatly exceeded the WTP and the numbers of transactions were considerably fewer than the Coase theorem, which predicts that about half the mugs will trade, predicts. The same experiment design, where value-induced tokens replaced the objects, did however affirm the Coase theorem. The experiment ruled out the possibility of transaction costs as a cause for the under-trading in objects or consumption goods and the underlying hypothesis, that many discrepancies between WTA and WTP reflect a genuine effect of reference position on preferences, was supported (Kahneman, et al., 1990).

The effect, labelled the Endowment Effect by Thaler (1980), is seen by Kahneman, Knetch and Thaler as a manifestation of “loss aversion”, the: “generalization that losses are weighted substantially more than objectively commensurate gains in the evaluation of prospects and trades. An implication of this asymmetry is that if a good is evaluated as a loss when it is given up and as a gain when it is acquired, loss aversion will, on average, induce a higher dollar value for owners than for potential buyers, reducing the set of mutually accepted trades”(Kahneman, et al., 1990, p. 1326-1328). The significance of these findings in general economic terms is that the existence of the endowment effect reduces the gains from trade. Due to an inertia caused by loss aversion potential traders are more reluctant to trade resulting in a lower volume of trade than would occur when preferences are independent of endowment.

Endowment effect in IP

An implication of the endowment effect, according to Kahneman, Knetch and Thaler, is that people treat opportunity costs differently than “out-of-pocket” costs and that foregone gains are less painful than perceived losses (Kahneman, et al., 1991). This manifestation of asymmetry of value, labelled “loss aversion” and explained as the disutility of giving up an object being greater than the utility associated with acquiring it, is often coupled with a related bias termed the “status quo bias.” The status quo bias is manifest as a preference for the current state that biases a person against both buying and selling.

As mentioned before the endowment effect has been demonstrated to be in effect when trade involves objects or tangible goods and not so when the transactions are in value-induced tokens (coupons, lottery tickets, etc.). In fact, the effect appears to vary depending on the type of goods involved, showing itself to be the greatest in public and non-market goods (Horowitz & McConnell, 2002).

Christopher Sprigmann and his collaborator, Christopher Buccafusco, have recently conducted experiments that offer an approximation of how authorship affects the endowment effect by quantifying the WTA/WTP gap in experimental situation where authorship is at the core of ownership (Buccafusco & Sprigman, 2010b). In all likelihood the first experiment directly aimed at testing the value formation in intellectual property transaction in situations where the copyright owner (creator) is responsible for the determination of utility of his property.
Endowment effect and trade in copyrightable works: Two experiments

Intellectual property rights, including copyright, came about as a mechanism aimed at correcting an asymmetry, in fact a failure, in the market for intangible goods. This market failure comes about because the goods are neither exclusive nor rival. Once fixed in one form or another they can easily be copied and distributed (today at nearly zero cost due to advances brought about by digital technology) by whomever wishes to do so and without control or limitations. The inevitable underproduction of creative works and works of science that results from this state of affairs prompted the implementation of laws that vested the right to copy with the author of such works, rights that the author could either handle herself or assign to a third party temporarily or for the entire duration of the copyright term. Defined as a statutory temporal monopoly, based on the intangible rights of exclusion, the rights are, mostly, perceived as property rights sanctioned by, by now, universal copyright codes.

First experiment

When Buccafusco and Sprigman conducted their experiment into the endowment effect as it relates to trade in copyrightable goods no study had explored the effect in non-substitution and non-rival property. Nor in property where the seller was also the creator.

The experiment designed simulated the Kahneman, Knetch and Thaler 1990 benchmark experiment while adapting the proceedings so that they reflected proceedings in a market for licensing IP. Buccafusco and Sprigman determine the value of any particular, individual IP right as: “...the probabilistic value of the rents that can be obtained from holding the right to a given work. Thus, the ex-ante value of a copyright in a newly created work can be measured by multiplying the amount of money that the copyright holder could obtain through using, selling, or licensing the work in the market by the probability that it will succeed in generating that money” (Buccafusco & Sprigman, 2010b).

Participants were divided into three groups, authors, bidders and owners. Those assigned the role of authors were asked to write a poem (a haiku) which then was entered into a competition for a specified prize (the competition and the prize being approximation for the probabilistic value of obtainable rent and thus a simulation of a market situation). Authors then indicated the minimum price they were willing to accept for their chance to win the competition and the bidders, likewise, indicated the maximum price they were willing to pay for the chance to win the price by a given poem (each bidder was allocated a poem to bid for). After the first transaction phase (authors/bidders), each poem was allocated to an owner for the second transaction phase (owners/bidders) and a second set of bidders bid for a poem’s chance to win the prize against the owners stated WTA for the respective poem. Various features were designed into the experiment to test against additional variables and then the WTA of respectively authors and owners and the WTP of bidders was measured.

The results from the experiment were found to suggest that: “…the preference of IP creators, owners, and purchasers are unstable and dependent on the initial distribution of property rights in creative works” and that “large gaps arise between WTP and WTA even though the poems are non-rival property and the contemplated alienation of the property is therefore only partial” (Buccafusco & Sprigman, 2010b, p. 6).

The findings of the experiment were in line with findings from other experiments that dealt with the non-alienation effect is even further enhanced since the ownership of the haiku is a secondary objective (after the initial one, the chance to win the prize) and does not determine the outcome.
endowment effect by measuring the gap between the WTA and WTP. The conclusion is that private transactions in creative goods are subject to cognitive biases as reported in other experiments where transactions involved tangible objects or goods but that “the markets for the licensing and transfer of IP may be subject to special inefficiencies above and beyond those imposed by the endowment effect generally” (Buccafusco & Sprigman, 2010a, p. 1). However, the experiment did not support an initial prediction that authors would exhibit greater valuation bias than owners. There was no statistically significant difference between the WTA of author and owners respectively. That the experiment demonstrated inefficiencies “above and beyond” the general representation of the endowment effect indicates that a conception of some innate qualities that exceed the general perception of qualities of objects is present in the valuation of creative works as supported by Spellman and Schaner (Spellman & Schaner, 2009). Still, this heightened presence of the WTA/WTP gap was equal with both authors and owners and not, represented in greater part, by authors only.

Although it may seem logical to assume that the endowment effect is present, and even heightened in trade where the object or property is created by the seller, particularly to those familiar with the effect and the previous research, the non-rival nature of the objects might easily be presumed to counteract on the effect since there is limited or no alienation of the object from the seller. This discount did not appear however.

Second experiment

Buccafusco and Sprigman pondered whether their surprising conclusion (that no difference was present in the WTA of creators and owners) was due to the possibility that the “creativity effect” or the expected additional asymmetry between creators and non-creating owners of art objects, simply did not arise or if the failure to capture the effect was an artefact of the experimental design. This, they concluded, could be the low volume of creative effort involved in the composing of the poems and the absence of a personal and internal motivation for the creative act of writing the poems. So a second experiment was designed and conducted (Buccafusco & Sprigman, 2010a). To correct for the suspected failure to capture the suspected additional effect (the creative effect) undergraduate students from a recognized art institute were requested to select a painting from their already produced works and enter it into a competition for a prize.

Again, the participating artists were told that they were not transferring the painting (or any rights in it), that it was only the chance of winning the prize that was a part of the bargain. Students from a neighbouring college of law were recruited to participate either as owners or buyers. The experiment was then conducted in a manner mostly identical to the previous one. The results were as follows: ‘The Painters’ mean WTA was $74.53, while Buyers’ mean WTP was only $17.88. Also, Owners’ mean WTA was $40.67. Both the Painters’ and the Owners’ values differed significantly from the Buyers’, and, unlike in our previous experiment, the Painters’ values differed significantly from the Owners” (Spellman & Schaner, 2009). Buccafusco & Sprigman state that the results are: “...strongly suggestive of the existence of a creativity effect (italics B&S)” and draw the conclusion that “When internally motivated and engaged in considerable creative effort, creators seem to value their works substantially more than do potential buyers or mere owners of works.” (2010a, p. 14).

Although interesting and in many ways innovative and inspiring this conclusion, and unfortunately, the experiment, is flawed. I will provide arguments for four related but separate instances of fault. The first three have to do with the research design but the fourth, is a conceptual fault and one which I suggest an alternative interpretation of as well before proceeding to suggest a method for further testing.
Discussion: The Creativity effect, its problems and a proposition for conceptual augmentation.

1. Care has to be taken when causal relationships are considered in relation to the various (cognitive) biases and effects under discussion.

The Endowment Effect was described earlier as the gap between the WTA and WTP in property transactions. The effect can also be described as the increase in perceived value that occurs between the point of acquisition and the point of sale or resale. The second definition removes the effect from the value formation when creators are the sellers of the intellectual property. This does not mean that an asymmetry between WTA and WTP is not present in such cases but they are not to be attributed to the Endowment Effect as identified and established by Thaler, Kahneman and Tversky.

The Buccafusco and Sprigman experiments place creators in the equation which in itself is a diversion from previous experiments where owners and bidders produced the effect according to its precise definition. Since the additional factor, the creator, cannot produce the effect under measure it has to be assumed that either the intention was to produce and measure a second bias or that the distinction between the first and second definition of the Endowment Effect (as described above) was not recognized by the authors.

The first experiment did manifest the presence of the Endowment Effect between owners and buyers, it showed an enhanced presence of the effect and thus supports a suggestion that markets for IP may suffer from exaggerated inefficiencies. The addition of creators did not produce any findings but gave the authors a surprise. This surprise exposed an underlying assumption that was embedded into the authors’ perception of the Endowment Effect, an assumption that predicted that some specific bias must be present when creators participate in the transaction of their created works.

The absence of this bias (manifest by the symmetry between the WTA of creators and owners) in the experiment prompted the second experiment where it was firmly established, named the Creativity Effect and rightly disengaged from the Endowment Effect. I suggest that the failure to produce the Creativity Effect in the first experiment (Buccafusco & Sprigman, 2010b) was due to a lack of cognizance of the nature and distinction of the biases under measure.

2. Paintings in markets are exclusive and rival, the only rights that are not transferred are the moral rights that offer limited protection. Art markets produce near full alienation. Thus the second experiment reported by Buccafusco and Sprigman (Buccafusco & Sprigman, 2010a) does not replicate an art market situation. In a wider context of the creative industries, exclusivity and rivalry no not exist and thus the manipulation present in the alleviation of the alienation effect might have modelled the experiment closer to real IP market situation. But can a manipulation that causes counter-effects, be so accurately designed that it captures the full measures of the effect it’s meant to test so exactly that the conclusion is taken as to be representative of a market that, by its nature, is governed by other elements (non-rivalry, non-exclusivity)? Alienation from the work, even with full moral rights protection (which is not the case in the US) and the fear of harm and distortion (as suggested by Gordon, 2009) in a market where abuse is difficult and costly to rectify are in all likelihood a consideration when a creator calculates her WTA price in a real market. At least that option must be ruled out before the full retention for the work post transaction can be claimed to compensate for non-exclusivity and non-rivalry.
3. A second consideration that questions the accuracy of the replication of real IP market effects also has to do with the non-alienation impact. Being able to retain the work without limitation offers the owner, and perhaps in particular, the author/creator the opportunity to sell the work again or make other revenue generating uses of the work. In a real IP market the sale of the IP for a specific work represents, in most cases, the only opportunity to reclaim the cost of creation (Landes & Posner, 1989) as well as additional benefits.

Although there are many indications that artists/creators are not the best utility maximizers (for example Gordon (2009) they will in all probability drive a harder bargain when presented with the only opportunity to sell their work. Also, artists may overcome certain disadvantages by pooling into learning, contacts and other benefits by retaining agents. This factor is not discounted for in the market situation created in the experiment.

4. The fourth and the central criticism of The Creative Effect is based on a sceptical view of the creativity component presented.

Firstly, the effect is contributed to an element (creativity), an innate component of either character or personal endowment. The endowment effect, loss aversion, status quo and recently, the IKEA effect (Norton, et al, under review) are biases or certain partiality or leaning towards a reoccurring behaviour in a given situation. In my opinion these are not identical, nor hardly comparable conditions.

Secondly, the authors seem to assume that a tendency for over-optimism or a related form of irrational estimation of value is the result of a creative character trait, and as such unique to particularly endowed individuals. The Creative Effect, as presented by Buccafusco & Sprigman, has circumference that encompasses what very likely are varying logics at work.

I would like to postulate that, at least, a part of what Buccafusco & Sprigman have termed The Creativity Effect is a meritory perception, an effect induced by the seller’s perception of herself, and consequently her creative work (a representation of her unique character trait, associative self-anchoring) as merited or endowed with particular or exceptional qualities. To emphasize, the difference between Buccafusco & Sprigman’s conceptualization and the one presented here is that the former supposes that The Creativity Effect is a phenomenon in and of itself while the latter supposes that The Creativity Effect contains multiple elements, one of which is an aggrandized self-perception that sees the work of art as a continuation of the self.

This aggrandized self-perception is born from a widespread social consensus that allows artists qualities that are to some degree extraordinary. Creativity is an element that resides in most individuals but to varying degree. Individuals may rate this personal ability differently; some may see or experience it as a core component of their character while others choose to use this creative ability to a lesser degree.

There are also environmental factors that can determine how, to what degree and to what purpose, an individual uses her creativity. Enrolment into an educational art institution is usually preceded by some form of a measure of creative ability and does thus grant the successful applicant recognition of their talent. However, this only affirms that the individual has “potentially” greater talent than other less successful applicants – not the population as a whole.
Artists and those who base their subsistence on their creative abilities hold a unique position in western cultures and have done so for a great length of time. This position has been elevated in relatively recent (historically speaking) times, adding to the purely distinctive or unusual a contingent and socially-constructed aura of the exceptional and uniquely gifted. The modern artist is an individual, whose intellect is the source of new and “original” intellectual works, a desirable and applauded commodity of modernity (see works on authorship, for example Woodmansee (1984), Rose (2003), Huges (2006) and on moral rights and the authorship theories of copyright, for example Rushton (1998) and Wu (2007), and on the sociology of art and artists, for example Walter Benjamin, Michel Foucault and Pierre Bourdieu).

A self-perception that reflects this social concept is reportedly common amongst artists and is, in some form and to some degree, a distinction that admittance into an educational art institution allows the prospective artist to accord herself. So the student of art, similarly to the professional artists, is predisposed to display a bias when her work is valued. A bias that reflects not necessarily and not merely the “creativity” that she proposes the work embodies but also the merit, the acknowledgement of her status as a “gifted” person.

I would like to conclude this discussion of the endowment effect and the criticism of its spawn, the creativity effect, by proposing a new research. This research aims at investigating the gap manifested between the WTA of artists and the WTA of owners or as Buccafusco & Sprigman have named this, the creative effect. I propose an experimental design that would test the WTA of “creative” students who have, from their internal motivation, created works that can enter a contest against the WTA of “creative” art school students who, likewise, will enter works on the same basis. Attempts will be made to model the experiment on markets with IP licence for creative products that are both non-rival and non-excludable. Apart from this variation the Buccafusco & Sprigman experiment can be seen as a module. It is my supposition that a difference between the WTA of these two groups of students will be present and measurable.

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