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"A Man's House is His Castle": An Economic and Comparative Approach to Compensation and Gain Sharing in Public and Private Takings

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Abstract

Takings compensation in North America and Europe has generally been related to "market value" in its various conceptions. The U.S., however, has experienced a wave of compensation increases on the state level lately, in particular when homes are taken ("subjective value") and for takings motivated by "economic development". On the European continent, influential jurisdictions like France and Germany are still reserved from granting any additional compensation in situations like these, but in Scandinavia Sweden stands out as a notable exception. And on the British Isles they have begun reintroducing bonuses for subjective value in recognition of the fact that the owner is being forced to sell. This article gives an account of the international trends in takings compensation and compares the trends to insights from experimental economics in its explorations of the ultimatum game and the endowment effect.

I.
INTRODUCTION AND PERSPECTIVES

Three years ago the Norwegians celebrated the bicentennial of their Constitution, including the protection of property rights. The Property Protection Clause (§ 105) was (as was the Constitution in general) inspired by both the Anglo-American and the French constitutional documents of the late 18th century. Like the Takings Clause of the Fifth Amendment, the Norwegian Constitution ensures that if property is taken for public needs, just compensation is to be granted.

Property is a fundamental legal concept. It has long represented one of the cornerstones of Western legal cultures, acquiring renewed traction with the advent of 16th century liberalism. As nobility and privileges went out of fashion, absolute ownership and free trade were to convey economic prosperity for all. Inspired by John Locke's idea of property as a fundamental human right, the concept of legal property was embraced by the revolutionary movements in the American colonies as in France. Limitations on the power of eminent domain – expropriation – were carefully crafted in the ensuing constitutions.

George Mason's Virginia Declaration of Rights, which was included in the State Constitution of June 12, 1776, listed "acquiring and possessing property" as one of the "inherent rights" of mankind. The Virginia Declaration of Rights was the basis for Thomas Jefferson's draft of the Declaration of Independence, formally adopted less than a month later. Jefferson, who had thoroughly studied the origins of English property law, claimed that the Saxons had brought a purified tradition of independent and equal ownership of land, which in turn had been displaced by an oppressive Norman feudal system.[1] By this, Jefferson was able to bridge his liberal vision of the unrestricted – "allodial" – property rights of the Virginian farmer to a historic "golden age" in English property law history.

On expropriation in particular the Virginia Declaration of Rights, section 6, declared that no one can be "deprived of their property for public uses without their own consent or that of their representatives so elected ... assembled for the public good". The Virginia Declaration of Rights was copied by other American colonies and strongly influenced James Madison when he drafted the Bill of Rights (ratified as Amendments to the U.S. Constitution December 15, 1791), including the Property Clause of the Fifth Amendment: "[...]; nor shall private property be taken for public use, without just compensation."

The French Revolution also brought the idea of property to prominence. The Declaration of Human Rights of 1789 and the Constitution of 1791 listed property as one of the basic human rights – in fact, property was protected as "sacred". The sacred part was rescinded in the Declaration of the Rights of Man and Citizen of 1793, which in its section 19 was more in line with the American Constitution: "No one may be deprived of the least portion of his property without his consent, unless a legally established public necessity requires it, and upon condition of a just and previous indemnity."

The property rights protection in the Norwegian Constitution of May 17, 1814 was inspired by the American and French human rights documents. The most influential draft (named the "Adler-Falsen draft" after its co-authors) provided strong protection of property rights; the expropriation

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1 *Christopher Michael Curtis,* Jefferson's Freeholders and the Politics of Ownership in the Old Dominion (2012), pp. 24–27, 60–67.

clause actually looked like a hybrid of section 6 of the Virginia Declaration of Rights and section 19 of the French Constitution of 1793. The Adler-Falsen draft was edited by a subcommittee of the Constituent Assembly, and the final version, adopted by the Constituent Assembly, turned out in the end much like the Property Clause of the Fifth Amendment of the U.S. Constitution: "If the welfare of the State requires that any person must surrender his movable or immovable property for the public use, he is to receive full compensation from the Treasury."

Both the U.S. and Norwegian constitutions have endured exceptionally well – today they are the two oldest in the world.[2] And both of them have kept the original property protection clause to present day,[3] limiting the eminent domain power to "public use" and making every expropriation subject to "just compensation".

The "public use" aspect, however, hasn't been taken that seriously. In fact, in Norway neither legal scholars nor the Supreme Court have paid attention to it at all. As long as just compensation is to be paid, it has been left to the parliament's legislative power to decide what use or purpose eminent domain should serve.

In the U.S., too, a narrow view of "public use" is long gone. In the mid-19th century it was defined literally as "use by the public". However, the U.S. Supreme Court has consistently interpreted it as a "public purpose" provision. Such an interpretation was confirmed as late as in 2005, in *Kelo* (Kelo v. New London, 545 U.S. 469). The city of New London in Connecticut had used its eminent domain power to take the home of – among several others – Susette Kelo. The parcels were ultimately to be transferred to private enterprises, as part of a plan to create "economic development". According to the city, the project would create in excess of 1,000 jobs, increase tax and other revenues, and revitalize an economically distressed city, including its downtown and waterfront areas. In assembling the land in question, the city's development agent needed to purchase over 100 homes. Many home-owners were eventually willing to sell, but the owners of 15 properties refused. They claimed that the taking of their properties would violate the "public use" restriction of the Takings Clause in the Fifth Amendment. However, the court ruled 5 to 4 in favor of New London. It held that the economic development plan did not violate the constitutional property protection, as it served a public purpose:

> "[...] when this Court began applying the Fifth Amendment to the States at the close of the 19th century, it embraced the broader and more natural interpretation of public use as 'public purpose' [...] Without exception, our cases have defined that concept broadly, reflecting our longstanding policy of deference to legislative judgments in this field."

As we see, there is not a significant difference between the U.S. and the Norwegian constitutional interpretation of "public use" after all.

The difference became even more insignificant after the European Convention of Human Rights (ECHR) was enacted into the domestic Norwegian legal system in 1999. Then, the public use requirement was in principle brought back to life in Norway, as the ECHR Protocol Article 1 actually contains a public interest provision: "Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the *public interest* and subject to the conditions provided for by law and by the general principles of international law" (italics inserted here). The National States have a large margin of appreciation, though, as Article 1 proceeds: "The preceding provisions shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties". I am not aware of any judgment from the European Court of Human Rights where the Court has ruled an expropriation as interfering with the public interest provision of the convention.

All in all, at pan-European and U.S. federal levels the "public use" condition is pretty insignificant, and in this paper I am not going to be occupied by that aspect of property protection.[4] Here I am going to investigate the other aspect of property protection: "just compensation". Even though compensation was not directly addressed in *Kelo*, the justices were actually keen to discuss the measure of compensation when the case was argued. Under the cur-

2 See *Tom Ginsburg & James Melton*, Norway's Enduring Constitution: Implications for Countries in Transition (International IDEA, 2014), available at: http://www.law.uchicago.edu/node/533/publications, last access: 26 June 2017.

3 As Norway celebrated the bicentennial of its Constitution in 2014, the language was however updated.

4 At European national and U.S. state levels the "public use" limitation may be more significant. In the U.S. the *Kelo* decision led to public outcry, articulated from the far left (Ralph Nader) to the far right (Rush Limbaugh). Even Justice John Paul Stevens himself – who wrote the majority opinion – publicly criticized the consequences of the decision, backed by an invitation made in his majority opinion: "We emphasize that nothing in our opinion precludes any State from placing further restrictions on its exercise of the takings power [...] "And the states accepted. Many states have put further restrictions to the power of eminent domain, in particular to limit takings of homes and economic development takings. According to Ilya Somin the *Kelo* case has resulted in more new state legislation than any other Supreme Court decision in history: *Ilya Somin*, The Limits of Backlash: Assessing the Political Response to *Kelo*, 93 MINN. L. REV. 2100 (2009). For an updated and extended version, see *Ilya Somin*, The Grasping Hand: Kelo v. City of New London & the Limits of Eminent Domain (2015).

rent interpretation of "just compensation", the likes of Susette Kelo are compensated based on fair market value of their property, without reference to the economic development project or the fact that the owner is forced to sell. Justice Kennedy put the point as follows during the oral arguments:

> "Are there any writings or scholarship that indicates that when you have property being taken from one private person ultimately to go to another private person, that what we ought to do is to adjust the measure of compensation, so that the owner – the condemnee – can receive some sort of a premium for the development? [...] It does seem ironic that 100 percent of the premium for the new development goes to the developer and to the taxpayers and not to the property owner."

Similar questions are at the present discussed in Scandinavia. Sweden is overhauling its takings legislation. The country has discussed how economic development projects – as well as the fact that the owner is forced to sell – should affect takings compensation. In Norway it is being debated in particular how takings of waterfalls – as means to establish hydroelectric power plants – should be compensated.

Justice Kennedy's question suggests that actors in the legal system should get more empirically based knowledge on what people comprehend as "just" compensation. Is it possible to measure the physiological reactions created when one of the most fundamental legal concepts – property protection – is being challenged? Lessons from behavioral economics may shed light on this problem, answering in the affirmative. Experimental economics provide insight through at least two interesting phenomena: From the ultimatum game experiments we may learn how people tend to split a gain, when they need to cooperate to make that gain happen. From the endowment effect experiments we may learn how people tend to put extra value on property when that particular property is already in their possession.

Even though time has passed, I mention that within the comparative law community there has been a bit of discussion about the fruitfulness of using empirical findings as basis for comparison. Julie de Coninck has promoted the use of behavioral economics – insights created by the endowment effect and the ultimatum game experiments in particular – as standards for comparison.[5] Ralf Michaels has been somewhat skeptical towards this, claiming that the relation between facts and legal rules will only rarely be observable as an empirical fact itself. For instance, Michaels did point to the problem that law is necessarily interpersonal, and observations cannot be stripped from their relation to society if they are supposed to have any implications for society.[6] He even found support in an article which commented on an earlier work of mine.[7] I take the opportunity to call attention to my rejoinder as well,[8] which carried these arguments:

When we take a closer look at a potentially interesting research object, we always realize that it is part of a web of symbiotic relationships. But it is impossible to investigate all these relationships simultaneously. In order to conduct meaningful studies, we have to isolate one or a few features of the phenomenon at a time. From there, we may add such new knowledge to the already accumulated knowledge of the phenomenon, which in turn leads to better insights into the web of relationships as a whole.

To what extent we comprehend individual-psychological findings from behavioral economics as relevant for a normative system like the law, is a question of how we assess different factual consequences. This can be exemplified by a simple argumentation structure, starting with a claim like: "We ought to shape property law in a way that acknowledges fundamental human needs for stable and durable protection for possessions." One standard pro argument for such a statement is: "It will reduce the use of force needed to implement the law." One standard contra argument against such a statement is: "It will lead to fewer opportunities for distributive justice." How *relevant* these arguments are (i.e. their bearing on the issue) depends on how we value the outcome when the different arguments are realized. It is presumable, though, that most of the participants in the legal debate will find the first argument of some relevance (not irrelevant). Consequently, an investigation of the *validity* of the argument (i.e. the plausibility of the argument)

5 See *Julie de Coninck*, Overcoming the Mere Heuristic Aspirations of (Functional) Comparative Legal Research? An Exploration into the Possibilities and Limits of Behavioral Economics, Global Jurist Vol. 9 (4) Article 3 (November 2009), available at: http://www.degruyter.com/view/j/gj.2009.9.4/gj.2009.9.4.1322/gj.2009.9.4.1322.xml, last access: 26. June 2017; *Julie de Coninck*, The Functional Method of Comparativ Law: Quo Vadis?, Rabels Zeitschrift für ausländisches und internationales Privatrecht 74 (2010), pp. 318–350; *Julie de Coninck*, Reinvigorating Comparative Law through Behavioral Economics? A Cautiously Optimistic View, Review of Law & Economics Vol. 7 (3) (December 2011), p. 711–736, available at: https://www.degruyter.com/view/j/rle.2011.7.issue-3/1555-5879.1557/1555-5879.1557.xml, last access: 26 June 2017; *Julie de Coninck*, Comparisons in private patrimonial law: towards a bottom-up approach using (cross-cultural) behavioural economics, in: Maurice Adams & Jacco Bomhoff (eds.), Practice and Theory in Comparative Law (2012), pp. 258–278.

6 *Ralf Michaels*, Explanation Interpretation in Functionalist Comparative Law – A Response to Julie de Coninck, 74 Rabels Zeitschrift für ausländisches und internationales Privatrecht (2010), pp. 351–359.

7 *Ibid.*, p. 354. See *Ino Augsberg*, Comment on Geir Stenseth's Secrets of Property in Law, Ancilla Iuris (anci.ch) (2008), pp. 114–117.

8 *Geir Stenseth*, Ino Augsberg's comment – a few remarks, Ancilla Iuris (anci.ch) (2008), p. 118.

should be of benefit in order to assess it.[9] At this point knowledge created by experimental economics becomes really interesting also from a legal perspective.

In my view, individual-psychological findings from behavioral economics lead to more differentiated – and improved – insights into how people comprehend various situations of possession. This certainly does not exclude, but necessarily recognizes, other arguments when we are confronted with a legal problem – for comparative or other reasons. As Michaels rightfully asks, the question is how much *further* observations of behavioral regularities will carry us. As this article will show, I am – like de Coninck – inclined to be more optimistic than him on that.

II.
JUST COMPENSATION

1. The fair market value standard

Today, almost most of North America (USA/Canada) and Europe the compensation measure seems to be related to the expression "fair market value". This is the case in the U.S. and most parts of Canada. In Europe, the European Court of Human Rights has ruled that compensation must be "reasonably related to [...] the full market value".

In the U.S. and in Norway, there are long traditions for interpreting the constitutional just compensation requirement as fair market value. In the U.S., Justice Holmes' statement in the 1910 *Boston Chamber of Commerce v. Boston* is frequently cited: "the question is what has the owner lost, not what has the taker gained."[10] In the 1943 case *United States v. Miller* the U.S. Supreme Court stated that at an early stage the courts adopted, and have retained, *the concept of market value*.[11]

When it comes to Norway, the influential legal scholar Torkel Halvorsen Aschehoug formulated the compensation measure as follows in 1885: What is compensated is the price that the owner would be able to sell the property for at the marketplace. The subjective value the property might have for the one who happens to own the property at the time of the compulsory purchase is not compensated.[12]

In particular, Aschehoug investigated the situation where the landowner remained a part of the property after the expropriation, and the remaining part increased in value due to the enterprise. Should there be a deduction for this in the compensation? He describes this as an internationally debated question, where the answers differ greatly between jurisdictions. According to Aschehoug, the U.S. Constitution did not forbid such deductions, but listed at least three states that prohibited deductions such as these.[13] Nor did he find any legislation or doctrine in England that suggested such deductions to be made, or even to be legal.

On the other hand, in France deductions like these were to be made (within certain limits), but not in Germany. Norway followed the French lead, as Aschehoug referred to an 1874 decision from the Norwegian Supreme Court. The court held that the disadvantages for the landowner by having a new railway built on her property was evened out by the advantages gained by the railway project, and therefore was offered no compensation.[14] This judgment created an important precedent for takings compensation in Norway. The central government was the predominate actor in expensive, technically challenging infrastructure enterprises, and when it sided with local interest to get railways and telephone lines to the provinces, property was made easily available at a low cost.[15] As indicated by Aschehoug, the laws of Great Britain would lead to a different path. As we now shall see, in Britain powerful landowners, dominating the Parliament, were able to get their share of money out of the railway pioneers.[16]

9 Here I use the concepts of "relevance" and "validity" for normative arguments in accordance with *Arne Naess*, Communication and Argument: Elements of Applied Semantics, in: Harold Glasser series (ed.), The Selected Works of Arne Naess VII 84 (2005).

10 Boston Chamber of Commerce v. Boston, 217 U.S. 189, 195 (1910).

11 United States v. Miller, 317 U.S. 369, 374 (1943) ("'The Fifth Amendment of the Constitution provides that private property shall not be taken for public use without just compensation. Such compensation means the full and perfect equivalent in money of the property taken. The owner is to be put in as good position pecuniarily as he would have occupied if his property had not been taken. It is conceivable that an owner' s indemnity should be measured in various ways, depending upon the circumstances of each case, and that no general formula should be used for the purpose. In an effort, however, to find some practical standard, the courts early adopted, and have retained, the concept of market value. The owner has been said to be entitled to the 'value', the 'market value', and the 'fair market value' of what is taken. The term 'fair' hardly adds anything to the phrase 'market value', which denotes what 'it fairly may be believed that a purchaser in fair market conditions would have given', or, more concisely, 'market value fairly determined'." (footnotes omitted)). – For the constitutional history, see *William A. Fischel*, The Offer/Ask Disparity and Just Compensation for Takings: A Constitutional Choice Perspective, International Review of Law and Economics Vol. 15 (1995), pp. 187–203. The author argues that "those who wrote American state constitutions were in a position to deal with the offer/ask disparity" (p. 188), i.e. the endowment effect discussed *infra* Part IV.

12 *Torkel Halvorsen Aschehoug*, Norges nuværende statsforfatning, tredie bind (1885) [The Constitution of Norway, 3rd vol. (1885)], p. 50.

13 Alabama, Iowa and Ohio.

14 Norsk Retstidende [Rt.] (1874) [Norwegian Supreme Court Reports (1874)], p. 563.

15 *Nils Rune Langeland & Siste Ord*, Høyesterett i Norsk Historie 1814–1965 (2005) [The History of the Norwegian Supreme Court 1814–1965 (2005)], pp. 510, 511.

16 *Ibid*., p. 512.

2. Alternatives: the "value to owner" and "value to taker" standards

Property law scholars often argue that the fair market value standard does not fully (or fairly) compensate the landowner, the reason being: If the landowner did comprehend fair market value as fair compensation, the use of the eminent domain power wouldn't – in principle – be necessary. The parties would rather have made the trade as a private bargain.

And there are alternatives to fair market value. English and Scottish legal history provides one example: During the 1800s railways were built by private enterprises. At that time, takings compensation was influenced by the fact that profit rather than the direct interest of the state was the motive for forcing landowners to sell.[17] As the expropriation legislation of 1845 (the Lands Clauses Consolidation Act and the Railways Clauses Consolidation Act) said nothing about the measure to be applied, the same year a committee appointed by the House of Lords (the Wharncliffe Committee) suggested principles of compensation for compulsory purchase for railways. The committee claimed that at least a bonus of 50 percent of the original value ought to be awarded, considering the fact that the landowners were forced to sell.

Surely, this might be comprehended as a sort of gain sharing. Thus, in 1870 a landowner claimed before the courts to be compensated according to the "value to purchaser" principle. The Queen's Bench rejected this, however, holding that "his loss shall be tested by what was the value of the thing to him, not by what will be its value to the persons acquiring it". Even though a value to purchaser standard was struck down, the court did not establish the measure standard as fair market value or value to a willing seller, as we know today. A vague "value to the owner" – or "value to an unwilling seller" – standard was established, still allowing courts to show generosity due to the fact that the landowners were forced to sell. Indeed, juries and arbitrators still kept an eye on the gain to be created by the purchaser. The universal practice was to award an additional sum – usually 10 percent in England, but in Scotland up to 100 percent – due to the compulsory nature of the purchase. According to Rowan-Robinson it "would seem that awards by arbitrators and juries were much influenced by the fact that the promotors were often railway companies where profit rather than the direct interest of the state was the motivation".[18]

A major shift occurred when new legislation on takings compensation was enacted in 1919. The end of the First World War sparked a time of major public works. In particular, there was a strong need for public housing construction. The compensation measure of the railway age was out of place. A committee was established, to report on "acquiring large quantities of land quickly and cheaply".[19] Accordingly, the Acquisition of Land (Assessment of Compensation) Act 1919 changed the compensation standard to fair market value. To dispense with the "open texture" principle of value to the owner, which had led to bonuses in the past, the legislation expressively made "value to a willing seller" as the measure, making it clear that no allowance should be made on account of the acquisition being compulsory.[20]

In 1851 Canada adopted the English Railways Clauses Consolidation Act in its Canadian Railways Clauses Consolidation Act. Accordingly, the compensation measure was considered the same as the law of England, and Canadian courts and arbitrators applied the leading English "value to owner" principle.[21] During the second half of the 20th century, Canadian expropriation legislation mostly brought Canadian law into line with the market value concept introduced in England in 1919. Still, the "value to owner" principle seems to be operative in the Provinces of Prince Edward Island, Quebec, and Saskatchewan, however.[22] That said, under the current application of the value to owner principle, the final results do not differ much from those of the fair market value standard.[23] The courts have distinguished the value to owner principle from value

17 Some instances of legislation that add bonuses to the fair market value have in fact been seen in the legal history of the U.S., as well as in Norway. In the U.S. the 150 percent compensation under the Nineteenth Century Mill Acts is well known, see *James E. Krier & Christopher Serkin*, Public Ruses, Michigan State Law Review (2004), pp. 859–875. When the Norwegian government encouraged development of hydroelectric power plants from the end of the 19th century, compensation measures were enacted to recognize that condemnees had to give up property (waterfalls) of potentially very high value. A bonus of 25 percent was enacted – a bonus that remains in force to this day, *see infra* Part V.4.

18 *Jeremy Rowan-Robinson & C.M. Brand*, Compulsory Purchase and Compensation (1995), pp. 82–85.

19 *Malcolm Bell,* Taking Justice Seriously: Rawls' Utilitarianism and Land Compensation, 3. Urban Law and Policy (1980), pp. 23–39, p. 28.

20 *Rowan-Robinson & Brand* (fn. 18), pp. 85–86. The compensation procedure may have led to somewhat analogous effects in France, see *Jean-François Struillou/René Hostiou & Romain Melot*, Expropriation Law in France, in: Jacques Sluysmans, Stijn Verbist & Emma Waring (eds.), Expropriation Law in Europe (2015), pp. 157–176, p. 159: "First conferred to civil courts by the 1810 Act, the power to fix the compensation was then transferred by the Act of 7 July 1833 to a jury of landowners, often accused of excessive favouring the interest of the same landowners. The legislative decrees of 8 August and 30 October 1935 replaced it by an arbitral evaluation committee. The Government Order of 23 October 1958 finally led, as from 1965, to the establishment of a single judge from the ordinary courts, the expropriation judge, who is alone empowered to issue the transfer of property of the expropriated asset and to fix the amount of compensation, in default of agreement. It should also be mentioned that the Parliament, as from 1935, gradually restricted the amount of compensations in order to restrain public expenditures at the cost of expropriated landowners." Further investigation into this must be postponed for a later enterprise.

21 *Eric C.E. Todd*, The Law of Expropriation and Compensation in Canada (1992), p. 4.

22 *Ibid.*, pp. 5, 6.

23 *Ibid.*, p. 7.

to the taker principle,[24] and advantages of an ordinary residence that the owner is forced to give up, including sentimental attachment, is not compensated.[25]

3. Revisiting "value to owner" and "value to taker"

The era of deregulation over the last 30 years has led scholars to question if the post-World War I ideas are fully relevant to a modern, more affluent, society. Today, private businesses are often fulfilling public needs – analogous to the British railways. Except now, it is often not a question of paying powerful landlords, but ordinary home-owners.

However, as explicated above, "fair market value" is rooted as the baseline for takings compensation in North America and Europe. And such a baseline makes sense. The market price is equivalent to how the general public comprehends the value of property. To sustain in a democratic society, the law needs to be comprehended as legitimate and fair to the general public. That's one major reason why lawmakers tend to stick to the "fair market value" standard. Compensation at higher levels is often regarded as undeserved windfalls.

Nevertheless, the public would probably accept deviations from the standard baseline in situations that involve easily recognizable patterns. This is where lessons from experimental economics become interesting. The ultimatum game experiments reveal what most people accept as a fair split when, in fact, a windfall gain is to be split between identifiable private parties. The endowment effect experiments expose how most people react when property for their personal use is taken away from them.

As we are going to explain below, several jurisdictions are actually adding bonuses to fair market value, but it is not done in any consistent manner, nor based on how empirical knowledge is able to guide public policy on these questions. What I am going to focus on in the rest of this paper is how the ultimatum game and the endowment effect experiments suggest deviations from the standard baseline of takings compensation, in ways that the general public will presumably recognize with ease as fair. I do not argue that further – or more sophisticated – deviations from the baseline would not convey the ideal of fairness to an even greater degree. What I argue is that some takings categories really stand out as candidates for bonuses to market value, which is: where property is taken from one private person to the economic benefit of another private person, and where property for personal use is taken. Both the grounds for which bonuses should be awarded in such situations, and where to set the bar for such bonuses, are supported by empirical findings. The intersection between those findings and takings compensation is investigated in the chapters below.

III. GAIN SHARING – THE ULTIMATUM GAME EXPERIMENTS

1. Introduction – the Norwegian story

The stories of the United Kingdom and Norway suggest one crucial point when it comes to takings compensation: The fairness of the compensation is comprehended differently subject to the nature of the acquirer and his motivation. If the taking is done by the state in the direct interest of the state, like the Norwegian railway story, sharing in gains of the enterprise in question is often not comprehended as an appropriate measure. If, on the other hand, the profit-seeking nature of the private sector rather than the direct interest of the state motivate expropriation, like the story of the U.K. railway boom, sharing in the gains of the enterprise is generally comprehended as an appropriate measure.

The fundamental difference between how the two situations are viewed becomes even clearer when we investigate the Norwegian situation a little more closely. Under the Norwegian law of servitudes of 1968, the property owner may claim servitudes to be taken away from her property, provided that her property by this undoubtedly will increase in value more than the value of the servitude to the holder. In such a situation, the servitude holder is entitled to compensation that, at minimum, equalizes the value of the servitude to him. But if the gain to the property owner is substantial, for example if the removal of the servitude enables him to develop the property commercially, the servitude holder is entitled to share in the gains. In such a situation, both parties are perceived to contribute to the creation of the gain. According to the preparatory work for the legislation, the scope of the compensation measure in this case should not first and foremost be to compensate the loss that the servitude holder experiences but rather what one may presume "wise and reasonable" men would agree on in a non-compulsory purchase. The same principle is in force under Norwegian nuisance legislation of 1961. The court may allow a property owner to go forward with economic development that will impose a nuisance to

24 *Ibid.*, pp. 111–113.
25 *Ibid.*, pp. 116–117.

his neighbor, provided that the neighbor gets to share in the gains of the enterprise, insofar as "wise and reasonable" men presumably would have agreed to such a trade-off.

It is worth noting that this legislation was prepared and enacted in a governmental environment that was not very friendly to property owners in public takings. In 1973 the Norwegian parliament enacted legislation on takings compensation. The aim of the legislation was to substantially curb the compensations, and the basic principle was only to compensate property value based on the actual land use. As a result of this, a standard compensation measure was established at a level below fair market value. Three years later, the Supreme Court in fact struck down the basic principle of the legislation as unconstitutional. The court held that "full compensation" according to the Constitution § 105 was equivalent to fair market value.

Although both the legislation on servitudes and the legislation on takings compensation were enacted as universal law within the jurisdiction, the scope of the first was to legislate on the relationship between two private parties; the scope of the latter was to legislate on the relationship between the state and a private party. So, within the time span of only a few years, the Norwegian legislator found it appropriate, on the one hand, to let the parties share in the gains when one private party had to give up property rights to enable the other to conduct economic development on her property; on the other hand, the Norwegian legislator found it appropriate to put off the property owner with less than market value when the state takes property in the direct interest of the state. The fairness of the compensation was comprehended differently subject to the nature of the acquirer and his motivation.

2. Selected scholarship before and after *Kelo*

The same phenomenon engaged the justices in *Kelo*. There was no disagreement on the basic principle of takings compensation: the value to a willing buyer and a willing seller, without reference to the project. The doubt sneaked in when the landowner was losing her property to the economic benefit of another private party, which led Justice Kennedy to ask if there were any writings or scholarship that indicates adjustments to the measure of compensation when property is being taken from one private person ultimately to go to another private person.

Even though during the oral arguments the attorneys were not aware of any such scholarship (to their defense, the compensation problem was not a direct part of the case), several scholars had in fact looked into the problem. Already in 1983 Jack L. Knetsch had treated the problem of gain sharing thoroughly in the book "Property Rights and Compensation. Compulsory Acquisition and other Losses". One of the chapters is attributed to the value to taker problem: "Scarcity Rents and Compensation." Knetsch identifies the major reason for the common distinction and exclusion of the value to the taker principle: otherwise "the owner would receive an undeserved windfall [...] To do so would, in this view, give an unintended and unjust fortuitous reward to the owner".[26] Knetsch proposes an alternative approach – the issue of scarcity:

> "Specific sites or land parcels may offer some unusual or even unique advantage for a particular purpose. To the extent that there is a demand for such an attribute and that there are few or no good substitutes, this scarcity will likely add to the value of that particular tract [...] The legal and policy issues really consists of how the scarcity rent is to be divided or allocated."[27]

Confiscation of the entire scarcity rent has been defended on grounds that the authority undertaking the work that makes use of this potential is the sole cause or reason that an increase in value occurs. In fact, scarcity value arises for two reasons: first, because of the increased demand for the special characteristic of the tract, which is due to the scheme; and second, because there is a lack of substitutes, which is due to the rareness of the holding. Both are necessary. According to Knetsch there seems to be no overwhelming reason that the value should accrue entirely to the authority if both an action by the authority and the existence of a scarcity are necessary to create the value at issue. Such a rule effectively discriminates in the accrual of the benefits of social changes: "The fact that owners of lands that are used privately are allowed to gain, and those owning land used by a public authority to respond to changing demands are denied an analogous advantage, raise questions of horizontal equity; similarly situated individuals are treated unequally."[28]

Knetsch discusses the standard takings situation: Land is taken and used by a *public authority*. His recommendation is that some sharing of the scarcity rent with owners should happen.[29] Indeed, his

26 *Jack L. Knetsch*, Property Rights and Compensation: Compulsory Acquisition and Other Losses (1983), p. 58.
27 *Ibid.*, pp. 62, 64.
28 *Ibid.*, pp. 65–66.
29 *Ibid.*, p. 72.

arguments apply even more to the situation I am concerned with – expropriations that create gains to be acquired by individualized private interests. Here the question of horizontal equity becomes compelling. Not only are similarly situated individuals treated unequally on the supply side; the demand side does not distribute the gains fully back to society, including the original owner.

This is why scholars even before *Kelo* had suggested that gain sharing fits particularly well with private takings. Leading up to that case, James E. Krier and Christopher Serkin developed the idea of gain-based compensation in their 2004 article "Public Ruses". Contrary to Thomas Merrill, who earlier had rejected the idea of a gain-based award (partly) because it would take away the government's incentive to use the power of eminent domain altogether, Krier and Serkin point out that the condemn-and-retransfer cases involve tri-lateral exchanges, with the government acting as intermediary:

> "Importantly, the price the government must pay the condemnees is not necessarily the same as the price the government then charges the subsequent transferee. The government may still have an incentive to condemn and retransfer property if the other benefits it generates outweigh the costs of paying the full assembly surplus to the condemnees."[30]

As the quotation above suggests, Krier and Serkin were mostly occupied with the prospect of awarding the condemnees the entire gain created by the condemnation. Nevertheless they discuss a legal change "so as to distribute *some* or all of the surplus to condemnees": "Not only would they give appropriate compensation to condemnees, they would also provide a good test for government claims that taking from Peter to give to Paul will, by some sort of magic, actually advance the public weal."[31]

Then Krier and Serkin pull the trigger: "The question, of course, is how the assembly surplus is to be shared among all concerned parties – condemnees, the government, and private transferees."[32] Yes, that's the question.

However, in his 2013 book "Private property and takings compensation", which adds new insight into various aspects of the compensation problem, Yun-Chien Chang goes somewhat around this particular question. Initially, he conducts a summary comparison of five forms of takings compensation standards – "zero compensation"; "current value"; "fair market value"; "economic value"; "project value". He concludes that in "sum, [...] economic value and fair market value seem to be more efficient than the other three forms. To make my analysis more focused, below I pare down the discussion of the most efficient takings compensation standard into a binary comparison: economic value compensation versus fair market value compensation".[33]

Yun-Chien Chang's first objection against "project value" – or value to the taker – echoes the pre-Knetsch windfall argument. But since Chang aims to identify the most efficient takings compensation standard, windfalls are not problematic.

He then turns to rent-seeking as a potential problem, as landowners, in his view, will lobby for condemnation, which is socially wasteful. However, such behavior is not likely to occur under his "project value" compensation standard. A more rational approach would be to strike a deal with the condemnor. And where there are different competing objects for a potential taking, the competition that occurs will single out the optimal site for the project, as if the potential purchaser didn't have the takings power. On the other hand, we know from real world cases that landowners certainly tend to behave social wastefully under the "fair market value" standard, as they lobby on a regular basis against condemnation under the current regime.

Finally, Yun-Chien Chang rightfully identifies the assessment costs as an argument against his project value standard. But the potential extra costs compared to the other standards in questions are not quantified, and – at least in private takings – assessments of the project value have to be done during the purchase process anyway, to create the foundation for the investment decision.

So, the weight of the arguments against the efficiency of the value to taker standard seems to diminish in the private takings setting. And in terms of distribution, I subscribe to Knetsch's position that gain sharing would improve horizontal equity – similarly situated individuals will be treated unequally. In sum, the idea of distributing some or the entire surplus to condemnees holds water – and how to share the surplus remains a relevant question.

As pointed out above, assessing the gain created is not necessarily an easy task, but in practice a manageable one. What I am concerned with is to try to establish guidelines for a fair split – based on empirical knowledge. According to conventional wisdom

30 *Krier & Serkin* (fn. 17), pp. 871–872.
31 *Ibid.*, p. 870.
32 *Ibid.*, pp. 870–871.
33 *Yun-Chien Chang*, Private property and takings compensation: Theoretical Framework and Empirical Analysis (2013), p. 34.

(see a couple of examples above), in relation to the owner, project value is usually comprehended as a windfall, and would as such give an unjust reward to the owner. The word "unjust" is the key here. Why would it be unjust to gain from the privileged position as property owner when you really don't want to sell, if it is not "unjust" when a willing seller shares in the gains by selling the property directly to the private developer? In both situations the property owner takes advantage of a windfall, in the sense that he doesn't (necessarily) need to expend effort to share in the gains. It is an unexpected, unearned function of being protected by the concept of private property – a developer shows up with a smart idea, sufficient capital and skills to make the economic development happen. Why is it not considered an unjust reward if the owner takes advantage of having possession of a scarcity – related to the project – if the purchase is done voluntarily, but considered a windfall if such a reward is gained through a compulsory sale?

Perhaps we may learn something of the "just"–"unjust" distinction if we consider both situations as windfalls, however, due to the fundamental legal concepts of private property and free enterprise. So, how do people tend to comprehend the idea of fairness connected to windfalls? Let's have a look at behavioral game theory.

3. Lessons from the Ultimatum Game Experiments

3.1. The game

One of the most famous behavioral games is the ultimatum game. As Colin F. Camerer puts it in his 2003 meta-analysis, the game produces the kind of empirical findings that surprise only an economist, and continues:

> "[The first] player, the 'Proposer', makes a take-it-or leave-it offer, dividing some amount of money between herself and another person. If the second person, the 'Responder', accepts the division, then both people earn the specified amounts. If the Responder rejects it, they both get nothing ... In experiments Proposers offer an average of 40 percent of the money (many offer half) and Responders reject small offers of 20 percent or so half the time."[34]

According to Camerer, the ultimatum game is a crisp way to measure social preferences rather than a deep test of strategic thinking. The ultimatum game highlights the emotional reaction to unfairness. Since such concepts as fairness figure prominently in private negotiations and public policy, measuring social preferences in money is important.[35]

Camerer compiles statistics from a range of ultimatum game studies, and the results show to be very regular.

> "Modal and medium ultimatum offers are usually 40–50 percent and means are 30–40 percent. There are hardly any offers in the outlying categories of 0, 1–10, and the hyper-fair category 51–100. Offers of 40–50 percent are rarely rejected. Offers below 20 percent or so are rejected almost half the time."[36]

The findings are replicated, or used as a foundation, in later experiments.[37]

Since the ultimatum game represents a model of a trade as if the eminent domain power didn't exist, the statistics are particularly relevant to the private takings situations. It resembles a situation in which the property owner could simply reject an offer from the developer, and then hold on to the property. Unlike public takings, private takings typically allocate gains between two (or a limited number of) private entities. That is normally done through private negotiations, where the fairness of the outcome plays a significant role for whether a deal is agreed. The owner has the veto power, so the developer has to share the gains from his project to such an extent that the owner accepts to sell; or he has to look elsewhere or abandon the project as not profitable (enough).

So, in ultimatum games, offers below 20 percent or so are rejected almost half the time, suggesting a sensible low level for a fair split of a windfall. At first glance, a sensible high level of a fair split might be 40 percent, the count of a typical offer. However, the identification of the high level demands that we dig deeper into the ultimatum game statistics. The question is: How do we explain the 20-percentage-

34 *Colin F. Camerer*, Behavioral Game Theory: Experiments in Strategic Interaction (2003), p. 43 (with reference to the first reported experiment of this kind, by Werner Güth, Rolf Schmittberger & Bernd Schwarze, see their article: *Werner Güth, Rolf Schmittberger & Bernd Schwarze*, An Experimental Analysis of Ultimatum Bargaining, Journal of Economic Behavior & Organization Vol. 3 (1982), pp. 367–388).

35 *Ibid.*, pp. 43–44.

36 *Ibid.*, p. 49.

37 E.g. *Simon Knight*, Fairness or anger in Ultimatum Game rejections?, Journal of European Psychology Students Vol. 3 (2012), pp. 2–14; *Toshio Yamagishia et al.*, Rejection of Unfair Offers in the Ultimatum Game Is No Evidence of Strong Reciprocity, Proceedings of the National Academy of Sciences of the United States of America Vol. 109 No. 50 (2012), pp. 20364–20368; *Carey K. Morewedge et al.*, Focused on Fairness: Alcohol Intoxication Increases the Costly Rejection of Inequitable Rewards, Journal of Experimental Social Psychology 50 (2014), pp. 15–20; *Pablo Brañas-Garza et al.*, Fair and Unfair Punishers Coexist in the Ultimatum Game, Scientific Reports 4, Article number 6025 (2014).

point gap between a typical offer (40 percent) and a typical rejection (20 percent)? A whole lot of the gap may be explained by the design of the game. It is typically conducted as a one-shot game – take-it-or-we-both-leave-it-all. This leads to strategic behavior in the part of the Proposers – they are forced to make generous offers, fearing to lose it all if the Responders reject.[38]

Trying to smoke out the true altruism part of the offers, researchers invented "the dictator game". This is simply done by removing the Responder's ability to reject: "If Proposers offer positive amounts in a dictator game, they are not payoff maximizing, which suggest some of their generosity in ultimatum games is altruistic rather than strategic."[39]

Dictator game statistics show that players lower their offers when there is no risk of rejection, but nevertheless they still offer significant shares – at least about 20 percent of the amount being divided.[40] So, the dictator game statistics suggest that people actually are prepared to give up 20 percent of a windfall when asked to share it with another person. Thus, the highest percentage a Proposer is willing to give up without any negotiations corresponds with the lowest percentage a Responder is willing to accept, which makes sense.

3.2. Applicability to gain sharing in private takings

Let's for a moment – both from the standpoint of the condemner and the condemnee – perceive the gain created by an economic development takings as a windfall: an 80–20 split looks quite sensible in relation to the ultimatum and dictator game experiments.

Now, as pointed out above, neither the condemner nor the condemnee would unconditionally agree on the windfall analogy. The condemner – the developer – may claim that, unlike the dictator game, where the Proposer just receives the money (to make a split), he has worked hard to create the business idea in question and raise capital in order to make the economic development happen. The condemnee – the landowner – may claim that she only takes advantage of having legal possession of a sought-after parcel, a scarcity, and such a position endows her with legitimate expectations to the economic benefits of increased demand of her property. That is not a windfall gain like the ultimatum game outcome.

To the condemner, one may reply that at least his input to the *actual project* would not be subject to sharing. Such costs are going to be subtracted from the gross benefit of the project, in the process of calculating the net gain. To the condemnee, one may reply that at this stage, we don't have better empirically based estimates of how a "standard" landowner would react to an offer from the developer, given the eminent domain power not being at hand. Further, the windfall analogy would be even more accurate if the landowner – before calculating her part of the gain – is not only compensated according to market value but also receives compensation for her *subjective* valuation of the property as well (see the endowment experiments below to unpack this argument). By that, her position related to the pure gain sharing part of the compensation measure would be pretty similar to the Responder's position in the ultimatum game. To be precise, her sharing in the gains would then not be part of her loss compensation but rather more equal to a situation where she more or less randomly chosen to accept or reject a part of a windfall.

As pointed out, many commentators have ruled out gain sharing on the ground that it would give an *unjust* reward to the owner. Such a view is not consistent with what experimental economics teach us about the notion of fairness. If you are placed in a position where you are able to accept or decline a split of a gain, you don't accept nickels and dimes. Rather, you let it go as – exactly – an unjustly *low* reward. To accept the split as a *just* reward – that is, fair in such a way that you are willing not to use the right to veto that you are granted – you need to get at least 20 percent. To conclude, an 80–20 split, as the ultimatum game suggests, would not only improve equity horizontally for the landowner; it presumably would be recognizable by the general public as adhering to a common notion of fairness.[41]

38 *Camerer* (fn. 34), p. 49.

39 *Ibid.*, pp. 49–50. The first dictator game was reported by *Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler*, see their article: Fairness And The Assumptions Of Economics, The Journal of Business Vol. 59 (1986), pp. 285–300. According to *Thaler*, the story goes like this: The three of them ran a version of the ultimatum game before they "discovered that three German economists led by Werner Güth had published a paper on precisely this game three years earlier. They used exactly the same methods and had a snappy name for it: the Ultimatum Game. Danny [Kahneman] was crestfallen when he heard this news, worried as always that his current idea would be his last. (This is the same man who would publish a global best-seller at age seventy-seven.) Jack [Knetsch] and I reassured Danny that he probably still had some good ideas left, and we all pressed on to think of another game to go along with the first one. [...] [T]his game has become known as the Dictator Game." See *Richard H. Thaler*, Misbehaving: The Making of Behavioral Economics (2015), p. 140–141. Both Richard H. Thaler and Daniel Kahneman have been awarded The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel (Thaler 2017, Kahneman 2002).

40 *Camerer* (fn. 34), p. 113, see also p. 56. See also *Christoph Engel*, Dictator Games: A Meta Study, Experimental Economics Vol. 14 (2011), pp. 583–610, p. 588: "If one calculates the grand mean from all reported or constructed means per 616 treatments, dictators on average give 28.35 % of the pie."

3.3. Variables that might affect applicability

Camerer has analyzed a number of variables that may affect the outcome of ultimatum games, of which a couple are particularly relevant to the problem at hand: (1) Do stakes, along with information of the amount being divided, matter, and (2) does culture matter?

In takings, the parties are informed – or at least should be – about the stakes, which in this case are the size of the gain being created by the project. How does such information affect the outcome in ultimatum games? Information of the amount being divided in fact has a significant effect on rejections. Most studies show that Responders do accept less if they have less information about the total amount. That means the notion of fairness is more likely to be affected by the size of the slices relative to each other, rather than the absolute size of the pie.

This is consistent with how rejections relate to the money at stake. One would presume that as stakes rise, Responders would accept a lower percentage, since they would be reluctant to give away a substantial amount of money. However, effects of this sort are surprisingly weak. To quote Camerer: "Taken together, these studies show that very large changes in stakes (up to several months' wages) have only a modest effect on rejections."[42]

This leads me to the cultural variable. Significant cross-cultural differences have been observed. Cross-cultural comparison is difficult, though, and rises – as Camerer points out – at least four significant methodological problems: stakes, language, experimenter effects and confounds with culture. However, as a general finding, cultures with more cooperative activity and market integration have sharing norms closer to equal splits. This implies "that either market experience creates norms of equal division or the propensity to share evenly permits impersonal markets to flourish".[43]

Furthermore, recent research suggests that humans and chimpanzees show similar preferences regarding reward division, suggesting a long evolutionary history to the human sense of fairness: "Their interest in fair distributions probably helps them reap the benefits of cooperation."[44]

When it comes to suggesting public policy in North-America and Western Europe, an 80–20 split between the condemner and the condemnee seems to hold water, also when stakes[45] and culture are taken into consideration. These cultures are culturally closely related. Yes, the size of government and the market regulations varies, but test results suggest that even the social-democratic Scandinavian societies are in line. Camerer refers to a Swedish experiment where the overall dictator allocation is comparable to that of, as he puts it, "other countries".[46]

IV. SUBJECTIVE VALUE – THE ENDOWMENT EFFECT EXPERIMENTS

1. Introduction

Another way of addressing Justice Kennedy's question is to focus on the loss experienced by the owner when her property is taken, rather than gain potentially created by the expropriation. This would in fact be consistent with the tradition of the British courts. As mentioned, in 1870 the Queen's Bench held that the landowner's "loss shall be tested by what was the value of the thing to him". Due to the fact that landowners were forced to sell, the "value to the owner" principle was established in order to award bonuses on top of market value. However, when the shift of 1919 occurred, the British compensation measure was brought in line with the law of the U.S. – and of Norway – at that time.[47]

41 I am not aware of any work that uses the ultimatum game results to suggest benchmark levels for gain sharing in private takings, except for one: *Tim Kowal*, The Restitutionary Approach to Just Compensation, Chapman Law Review Vol. 9 (2006), pp. 463–492. *Kowal* assumes the ultimatum game to indicate that the landowner will share 45 percent of the assembly gains. *Kowal* does not refer to any specific study that suggests that the level of gain sharing should be set at 45 percent. I suppose that he views the landowner to be in the position of Proposer, as 45 percent then would in principle make good sense (as quoted above, modal and medium ultimatum offers are usually 40–50). Or maybe he views the landowner to hold the Responder position – as I do myself –, but wants to make sure that (almost) every landowner – also the strongest "holdout" – is satisfied. As quoted above, offers of 40–50 percent are rarely rejected.

42 *Camerer* (fn. 34), p. 61. One later study does, however, suggest that stakes matter in ultimatum games: *Steffen Andersen et al.*, Stakes Matter in Ultimatum Games, American Economic Review 101 (2011), 3427–3439. The study was conducted in some poor villages in Northeast India. Stakes were increased up to a factor of 1,000, exploring bargains from 20 rupees to 20,000 rupees – that is from 1.6 hours of work to 1,600 hours of work (like an annual salary). The researchers found a considerable effect of stakes: "while at low stakes we observe rejections in the range of the extant literature, in the highest stakes condition we observe only a single rejection out of 24 responders." *Ibid.*, p. 3428. As pointed out in the article, future replication studies should be explored to investigate whether and to what extent the design of this experiment influenced the results. For instance, the village people may have teamed up to take as much money as possible from the researchers.

43 *Camerer* (fn. 34), p. 74. See also *Joseph Henrich et al.*, "Economic Man" in Cross-Cultural Perspective: Behavioral Experiments in 15 Small-Scale Societies, Behavioral and Brain Sciences Vol. 28 (2005), pp. 795-855.

44 *Frans B. M. de Waal et al.*, Chimpanzees Play the Ultimatum Game, Proceedings of the National Academy of Sciences of the United States of America Vol. 110 (2013), pp. 2070–2075, p. 2072.

45 When it comes to really large project gains, there might be a cap – or the share might decrease with increase in project gain, cf. *Andersen et al.* (fn. 42).

46 *Camerer* (fn. 34), p. 76.

47 See *supra* Part II.2.

Over the last decades, American property scholars have over and over again questioned the practice of not compensating the (entire) loss experienced by the owner. For example, Thomas W. Merrill and Henry E. Smith put it this way:

> "Under the fair-market-value standard, no compensation is given for this subjective premium above market value. Most commentators therefore have assumed that the fair market value measure results in systematic undercompensation of property owners, especially where the property is occupied by a residence or a functioning business."[48]

It is an unquestionable fact that occupying property creates psychological changes in the possessor. In their 2003 article, Jon L. Pierce et al. summarize a century of research on "psychological ownership", a phenomenon they define "as the state in which individuals feel as though the target of ownership [...] is 'theirs' (i.e., 'It is mine!')."[49] They claim that psychological ownership is rooted in a set of three motives: "efficacy and effectance, self-identity, and having a place (home)."[50]

The phenomenon is dynamic. As psychological ownership typically increases over time under certain circumstances, the feelings of ownership for a particular target do not necessarily last forever. Pierce et al. suggest that the decoupling process is associated with the same forces that produce the psychological state of ownership. A change in the underlying motive (e.g. the emergence of a new place in which to dwell) typically contributes to decoupling. Pierce et al. concluded by pointing to the need of empirical testing on psychological ownership and to the need of a measurement instrument.

2. Lessons from the Endowment Effect Experiments[51]

2.1. The Game

Yes, economic experiments confirm that there is a difference between a buyer's willingness to pay (WTP) for a good and a seller's willingness to accept (WTA) for the same good. It's called the "endowment effect". Like the ultimatum game, the earliest endowment effect experiments were conducted in the early 1980s.

Simplified, a typical endowment effect experiment proceeds as follows: One group of people is given coffee mugs. Another group of people is given the opportunity to inspect the same coffee mugs. After a while, they are asked to trade mugs, as follows: Members of the first group are asked to make offers to sell; members of the second group are asked to make offers to buy.

In 1990 Daniel Kahneman et al. famously reported a series of such experiments, always with similar outcomes: median selling prices showed to be about twice median buying prices.[52] The endowment effect has been replicated in numerous experiments,[53] and seems today to be broadly recognized by scholars.[54] The experiments systematically show that the possessor values her objects significantly higher than a third party values it, and further the experiments offer test methods and measurement of such a relationship.[55]

As Kahneman has pointed out to me, the essence is that ownership is not valued as such. What is valued is the action that changes ownership. This is the same idea as in his "prospect theory". Another central idea in prospect theory is "loss aversion": Losses tend to loom larger than corresponding gains. To an owner his possessions represent a potential loss. To third parties the same possessions represent a potential gain.

48 *Thomas W. Merrill & Henry E. Smith*, Property: Principles and Policies (2007), p. 1254.

49 *Jon L. Pierce et al.*, The State of Psychological Ownership: Integrating and Extending a Century of Research Review of General Psychology Vol. 7 (2003), pp. 84–107, p. 86.

50 *Ibid.*, p. 91.

51 See *Geir Stenseth*, Current Empirical Premises to the Disclosure of the Secrets of Property in Law: A Foundation and a Guideline for Future Research, Ancilla Iuris (2008), pp. 96–113.

52 *Daniel Kahneman et al.*, Experimental Tests of the Endowment Effect and the Coase Theorem, Journal of Political Economy Vol 98. (1990), pp. 1325–1348. One of the authors, Richard H. Thaler, had already invented the name in 1980: "I called this phenomenon the "endowment effect" because, in economists' lingo, the stuff you own is part of your endowment, and I had stumbled upon a finding that suggested people valued things that were already part of their endowment more highly than things that could be part of their endowment, that were available but not yet owned," see *Richard H. Thaler*, Misbehaving: The Making of Behavioral Economics (2015), p. 18.

53 See e.g. *Nathan Novemsky & Daniel Kahneman*, The Boundaries of Loss Aversion, Journal of Marketing Research Vol. 42 (2005), 119–128 and *Jochen Reb & Terry Connolly*, Possession, Feelings of Ownership and the Endowment Effect, Judgment and Decision Making Vol. 2 (2007), p. 107–114. Another account of the different results of the experiments is to be found in *Owen D. Jones & Sarah F. Brosnan*, Law, Biology, and Property: A New Theory of the Endowment Effect, William & Maryland Law Review Vol. 49 (6) (2008), pp. 1935–1990, 1947–1949.

54 The robustness of the endowment effect experiments is questioned in *Charles R. Plott & Kathryn Zeiler*, The Willingness to Pay–Willingness to Accept Gap, the "Endowment Effect", Subject Misconceptions, and Experimental Procedures for Eliciting Valuations, The American Economic Review Vol. 95 (3) (2005), p. 530–545. One critique of this work is to be found in *Eric J. Johnson et al.*, Exploring the Nature of Loss Aversion (IZA, Discussion Papers No. 2015, March 2006), available at: http://ssrn.com/abstract=892336, last access: 26 June 2017. *Charles R. Plott & Kathryn Zeiler* follow up in the article Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory?, The American Economic Review Vol. 97 (4) (2007), p. 1449–1466, where they test an alternative explanation for observed asymmetries against endowment effect theory. They recognize the discovery of asymmetries in exchange experiments as interesting and not dismissable, but "suggest that classical preference theories influencing choices through procedures used in the experiments account for the patterns of observed choices" (p. 1462).

55 See *Daniel Kahneman et al.*, The Endowment Effect: Evidence of Losses Valued More than Gains, in: Charles R. Plott & Vernon L. Smith (eds.), Handbook of Experimental Economics Results (2008), pp. 939–948. Cf. *Praveen Kujal & Vernon L. Smith*, The Endowment Effect, in: Charles R. Plott & Vernon L. Smith (eds.), Handbook of Experimental Economics Results (2008), pp. 949–955.

So, when you take property away from an owner and give it to a third party – as in the takings situation – the owner puts a higher value on his loss than the third party puts on his gain. Typically, fair market value corresponds to the third party's valuation, not to the owner's.

But there are limits to the endowment effect. First of all, the psychological effects primarily dealt with here represent an instant endowment effect. The value that people assign to objects like mugs increases substantially as soon as they get the object in their possession. It is not dependent on, or captures, long-term sentimental attachment.[56]

Another important limit to the endowment effect is that it is dependent on the intentions of the possessor. In the experiments published in 1990 Kahneman et al. found that

> "the effect did not appear in the markets for money tokens, and there is no reason in general to expect reluctance to resell goods that are held especially for that purpose. An owner will not be reluctant to sell an item at a given price if a perfect substitute is readily available at a lower price. *This reasoning suggests that endowment effects will almost certainly occur when owners are faced with an opportunity to sell an item purchased for use that is not easily replaceable."*[57] (Italic inserted here.)

In 2005 Kahneman did investigate the impact of intentions, published in an article called "The boundaries of loss aversion" (with Nathan Novemsky).[58] The results show that the intention of the ownership is crucial for the emergence of the endowment effect. When goods are held for the purpose of exchange, possession does not create such an effect. So, the same good can be intended for different purposes (by the same person and by different persons). The intention can produce, or inhibit, the endowment effect, depending on the circumstances: "Intentions define a good as an object of exchange or as an object of consumption, and therefore they determine whether giving up that good is evaluated as a loss or a foregone gain," the article concludes.[59] In the aftermath of the article, some attention was also drawn to the psychology that underlies the phenomenon,[60] summarized by Kahneman and Novemsky like this:

> "As with any phenomenon as robust as loss aversion, there are probably several mechanisms that underlie the effect. As a result, there may be several pathways through which intentions moderate loss aversion. Intentions may change people's cognitive focus; the anticipated emotional reaction to a loss; the effective reference point; and other, undiscovered mechanisms of loss aversion. Therefore, further research is necessary not only to establish the moderating role of intentions in loss aversion but also to understand exactly how intentions operate. After several decades of research, there is still a long way to go toward understanding loss aversion and the endowment effect, but considerable progress has been made."[61]

The 1990 experiments of Kahneman et al. also suggested that possession rather than ownership sparked the endowment effect:

> "The impression gained from informal pilot experiments is that the act of giving the participant physical possession of the good results in a more consistent endowment effect. Assigning subjects a chance to receive a good, or a property right to a good to be received at a later time, seemed to produce weaker effects."[62]

From a legal standpoint, it is of particular importance to investigate which role the legal component of the relationship between a person and an object might play: Does the endowment effect only mirror the existing legal system at a given time and place? The problem is examined in a study by Jochen Reb and Terry Connolly. They conducted an experiment in which the participants were divided into four groups. Members of group 1 received the item (chocolate bars or coffee mugs) before they were asked to attach value to it and were also told they legally owned the item. Members of group 2 got the item in possession but were not told that they owned it. Participants of group 3 were merely shown the item and were told that they legally owned it. Participants of group 4 were merely shown the item and were not told that they owned it. The study reports a significant main effect only for factual possession. Participants gave a higher monetary value to the items when they possessed them than when they did not possess them, while the effect of ownership was not significant with respect to valuation. The study concludes as follows (the citation uses the expression "factual ownership" as synonymous with "legal ownership"):

56 *Kahneman et al.* (fn. 52), p. 1342.
57 *Ibid.*, p. 1344. Cf. *Kujal & Smith* (fn. 55).
58 *Novemsky & Kahneman* (fn. 53).
59 *Ibid.*, p. 127.
60 See *Colin Camerer*, Three Cheers–Psychological, Theoretical, Empirical – For Loss Aversion, Journal of Marketing Research Vol. 42 (2) (2005), pp. 129–133 and *Dan Ariely et al.*, When do Losses Loom Larger than Gains, Journal of Marketing Research Vol. 42 (2) (2005), pp. 134–138.
61 *Nathan Novemsky & Daniel Kahneman*, How Do Intentions Affect Loss Aversion?, Journal of Marketing Research Vol. 42 (2) (2005), pp. 139–140, p. 140.
62 *Kahneman et al.* (fn. 52), p. 1342.

> "The results suggest that the endowment effect may be primarily driven by subjective feelings of ownership rather than by factual ownership as such. In other words, it may require the development of a subjective sense of endowment, rather than the legal entitlement, for the reference point to shift. Once the reference point is shifted, loss aversion sets in and leads to higher valuations. In our experiments, this shift seems to have been triggered by possession, not factual ownership."[63]

A study reported by Owen D. Jones and Sarah F. Brosnan supports the suggestion that the endowment effect is not driven by the legal property concept. That study examined the endowment effect in chimpanzees. It reports that chimpanzees do exhibit an endowment effect by favoring food they just received more than food that could be acquired through exchange.[64]

2.2. Applicability to takings compensation

The endowment effect findings may be viewed as fundamental characteristics of preferences.[65] By that, the existence of endowment effects reduces the gains from trade.[66] As pointed out by Kahneman et al., loss aversion

> "[...] implies a marked asymmetry in the treatment of losses and forgone gains, which plays an essential role in judgments of fairness (Kahneman et al. 1986). Accordingly, disputes in which concessions are viewed as losses are often much less tractable than disputes in which concessions involve forgone gains. *Court decisions recognize the asymmetry of losses and forgone gains by favoring possessors of goods over other claimants, by limiting recovery of lost profits relative to compensation for actual expenditures, and by failing to enforce gratuitous promises that are coded as forgone gains to the injured party* (Cohen and Knetsch 1989)."[67] (Italics inserted here.)

On the contrary, the law does not recognize the asymmetry of losses and foregone gains in takings situations. Translated into takings compensation, the endowment effect suggests that if owners are to be compensated for their losses, the measure should be based on "willingness to accept", not the market's "willingness to pay".

The endowment effect shows that the possessor's higher valuation tends to come into existence as an immediate result of the factual possession itself. So, the endowment effect experiments state a clear dichotomy between the perspectives of the possessor and that of the market. This clear dichotomy does not, however, imply that the duration of ownership does not affect the endowment effect. One would presume that the sentimental attachment would increase the long-term endowment effect. In 1998, Michal A. Strahilevitz and George Loewenstein showed that the effect of endowment goes beyond the immediate effect of current ownership to include the duration of current ownership.[68]

This leads me to some possible specific legal implications: Real property occupied by the owner, such as a residence or vacation home, is not typically held for the purpose of exchange but as an object of personal use. Here the endowment effect is typically engaged, and takings compensation should be awarded accordingly. Most other real property is presumably not held as property for personal use and therefore should be compensated according to fair market value. However, property may also be held with a mixed purpose, like family farms, where the property both serves as a home and a commercial enterprise. Property like this might deserve a separate legal category that implies a premium in-between of the two other categories.[69]

As already pointed out (*supra* Part II.2), legal history provides some examples of takings compensation that exceeds market value. The Wharncliffe Committee suggested a bonus of at least 50 percent, considering the fact that the landowners were forced to sell. Likewise, in the U.S. the 19th century Mill Acts provided the compensation to be set at 150 percent of fair market value. The endowment effect experiments may substantiate such a level of "overcompensation" as reasonable when the endowment effect is fully engaged. In the Reb and Collony 2007 study, an owner's selling-price / third party's choice-price ratio of 1.39 was referred to as typical in magnitude,[70] and in the Kahneman and Novemsky 2005 study the aggregate estimate of the

63 *Reb & Connolly* (fn. 53), p. 112.
64 *Jones & Brosnan* (fn. 53).
65 *Kahneman et al.* (fn. 52), p. 1346.
66 *Ibid.*, p. 1344.
67 *Ibid.*, p. 1346.
68 *Michal A. Strahilevitz & George Loewenstein,* The effect of ownership history on the valuation of objects, Journal of Consumer Research Vol. 25 (3) (1998), pp. 276–289.
69 For a comparison, see *Christopher Kutz*, Justice in Reparations: The Cost of Memory and the Value of Talk, Philosophy & Public Affairs Vol. 32 (3) (2004), pp. 277–312. *Kutz* discusses the attempts in Central Europe to undo the expropriations and deprivations of the communist regimes, and makes his case against cash reparations. But he leaves room "for claims to return of land itself, particularly land invested with sentiment, tradition and collective meaning." He unreservedly sets aside property which function is "income production", but finds the case for "family homes and family farms" more compelling (if not decisive). *Katz* has no merci on family-owned firms, on the other hand: here "restitution would be an exercise in sentimentality".
70 *Reb & Connolly* (fn. 53), p. 109.

similar ratio was 1.85, which was stated to be close to the values observed in previous experiments.[71] These figures indicate that the old-fashioned 50 percent bonus is not far-fetched.[72]

V.
TRENDS IN TAKINGS COMPENSATION

1. Introduction

As previously mentioned, the current takings compensation measure in North America and Europe is related to "market value", and, as a minimum standard, the measure is supported by case law of the U.S. Supreme Court and the European Court of Human Rights. In the U.S., however, the *Kelo* decision created a public outcry that led to a wave of compensation increases on the state level, see *infra V.2*. On the European continent, influential jurisdictions like France and Germany are reserved from granting additional compensation, and in particular this is the case when it comes to "gain sharing" and "subjective value" in the sense these expressions are used in chapters 3 and 4 above.[73] In Scandinavia, Norway is in line (see *infra V.4*), but Sweden represents a notable exception. The Swedes have recently enacted compensation for subjective value, and have been considering gain sharing measures as well, see *infra V.3*. And on the British Isles, they have begun reintroducing bonuses for subjective value and recognizing the fact that the owner is being forced to sell, see *infra V.5*.

In this chapter we are going to give an account of the trends in takings compensation with regard to gain sharing and subjective value, and to compare these legal adjustments to what the insights from the ultimatum game and endowment effect experiments would suggest.

71 *Novemsky & Kahneman* (fn. 53), p. 123.

72 See also *Stenseth* (fn. 51), pp. 101–105 and 111–112. In a recent meta-analysis on the willingness to pay / willingness to accept disparity, the geometric mean of the ratio is calculated to be 1.63 for ordinary private goods (compared to 3.28 when it comes to goods overall)," see *Tuba Tunçel & James K. Hammitt*, Journal of Environmental Economics and Management Vol 68. (2014), pp. 175–187, p. 180, 181.

73 In France, the "evaluation is commonly made on the basis of the market value of the expropriated asset, including a number of corrections. The amount of compensation shall then be restricted by different rules: speculative increases due to the announcement of works related to expropriation are not to be considered and the opportunity to qualify expropriated land as "building site" (*terrain à bâtir*) is limited." In particular, compensation for moral harm is excluded, and "the Court of Cassation has ruled that this interpretation does not infringe article 1 First Protocol of the Convention", see *Jean-François Struillou, René Hostiou & Romain Melot*, Expropriation Law in France, in: Jacques Sluysmans, Stijn Verbist & Emma Waring (eds.), Expropriation Law in Europe (2015), pp 157–176, p. 168. In Germany replacement of the marked value may be supplemented to cover individual losses like removal costs, but views "or expectations by the affected party with regard to his piece of land" remain disregarded, see *Siegfried de Witt, Corinna Durinke & Maria Geismann*, Expropriation Law in Germany, in: Jacques Sluysmans, Stijn Verbist & Emma Waring (eds.), Expropriation Law in Europe (2015), pp. 177–202, p. 196.

2. The U.S.

After *Kelo*, U.S. states were eager to constrain the eminent domain power, in particular in two relations: When homes are taken, and takings are motivated by "economic development". According to the "public use" condition, limitations were put on the government's ability to expropriate in several states.
Another way to nudge the use of the takings power is to adjust the level of compensation – corresponding to the "just compensation" focus of this paper. In that respect, the two takings situations in question dovetail very nicely with the two sets of behavioral economics experiments presented above.

To my knowledge, five states increased the level of takings compensation after *Kelo*, in a way that added bonuses on top of fair market value. In her article "The Measure of Just Compensation", Katrina Miriam Wyman refers to the states of Indiana, Kansas, Michigan and Missouri.[74] In addition, Rhode Island has enacted bonuses like this.[75] In all instances, the bonuses are connected to the two categories mentioned above – "home takings" and "economic development takings".

Home takings are the focus of the new legislation of Indiana, Missouri and Michigan. In these states, the bonuses are connected to a certain current use of the property:

Indiana differs between "real property occupied by the owner as a residence"; "agricultural land"; and other real property, that is – the two first categories are subject to bonuses. When property of the first category is taken, the owner is awarded a 50 percent bonus to the fair market value. When property of the second category is taken, the owner is awarded a 25 percent bonus to the fair market value. However, the impact of Indiana's bonuses is weakened by the fact that they also are subject to a condition of "economic development", see below.

Missouri differs between "homestead taking", "heritage value" and other real property; that is, the two first categories are subject to bonuses. When property of the first category is taken, the owner is awarded a 25 percent bonus to the fair market value. When property of the second category is taken, the owner is awarded a 50 percent bonus to the fair market value.

74 *Katrina Miriam Wyman*, The Measure of Just Compensation, U.C. Davis Law Review Vol. 41 (1), pp. 239–287, pp. 257–259 (2007).

75 Rhode Island General Laws § 42-64.12-8 (2009). See also § 42-64.12-8.1 (2009) by which residents who are *tenants* of property taken for economic development purposes shall be compensated for a minimum of 150 percent of one month's rent of such dwelling.

Michigan differs between "an individual's principal residence" and other real property. When a principal residence is taken a bonus of at the least 25 percent is added to the "fair market value".

Legislation in Indiana, Missouri and Michigan mostly excludes property held for the purpose of exchange from the bonus program, which is in line with the endowment effect. Further, at least the bonuses of 50 percent to the fair market value are within a reasonable margin of what the endowment effect would suggest as well.

Economic development takings are the focus of the new legislation of Rhode Island, Kansas and as mentioned above, Indiana. The Indiana legislation limits the award of bonuses to situations where the property ultimately is received by another private party and is not to be used for some specific public purposes.

In Rhode Island the owner is awarded at the least 50 percent to "fair market value" when property is taken for "economic development purposes".

According to the Kansas legislation, local governments now need to seek legislative approval before acquiring property for "economic development purposes". If the legislature approves a government's request to use eminent domain, it must also "consider" requiring a bonus of at the least 100 percent to the property's "fair market value".

All the states that award "economic development" bonuses use fair market value as a baseline. Even though the Kansas bonus is pretty high, it does not reflect the net gain of the undertaking, which may be higher, or lower, than the 100 percent bonus. The method of calculating gain sharing based on the market value of the taken property is not in line with what the ultimatum game would suggest. In cases where the net gain is known to both parties, the notion of fairness is more likely to be affected by the size of the outcomes relative to each other, rather than the absolute sizes of the outcomes. The ultimatum game suggests that the parties involved would interpret a bonus equivalent to 20 percent of the net gain of the economic development project as an acceptable amount.

3. Sweden

Sweden is currently overhauling its takings law. According to the Swedish Constitution of 1975, the landowner was entitled to be compensated for his "loss". In order to strengthen property protection, in 2009 the constitutional protection was changed as follows: "A person who is compelled to surrender property by expropriation or other such disposition shall be guaranteed *full compensation for his or her loss*."[76] (Italics inserted here.)

Due to the constitutional change, new compensation measures were enacted. In the preparatory works, in particular two aspects were highlighted.[77] First, the compensation measure should reflect how the landowner "individually" (or subjectively) valuated his property. Second, in private takings the landowner and the developer should share in the gains created by the development project.

The first aspect was enacted into law in 2010.[78] A flat 25 percent bonus is added on top of fair market value in each and every takings procedure. In the preparatory works the committee did consider if property held for commercial use should be exempted from the bonus, suggesting that such property was not subject to any particular "individual" (or subjective) valuation by the owner. On the other hand, the committee suggested that property held for personal use often would be valuated much higher than 125 percent of market value by the owner, and that farms and agricultural land would fall somewhere in-between property for commercial use and property for private use. However, due to the difficulties of designing a legislation incorporating these differences, the flat 25 percent bonus was enacted.

If the Swedes had looked to American legislation, they would have discovered that the state of Indiana has been able to differ between property categories, in a way similar to what the Swedish committee would have preferred: When "real property occupied by the owner as a residence" is taken, owners get 150 percent of fair market value; when "agricultural land" is taken, owners get 125 percent of fair market value; and when other property is taken, owners get only fair market value. More than the Swedish legislation, the Indiana legislation is in line with what the endowment effect would suggest: Owners who hold property as an investment are not subject to the effect and, consequently, get no bonus for "individual" (or subjective) property value. But, there is another problem with the Indiana legislation. Owners are not in general eligible for bonus above market value; bonuses are limited to "economic development" situations, which lead me to the question of "gain sharing".

76 Regeringsformen [RF] [Constitution] 2:15 (Swed.), available at: http://www.riksdagen.se/en/Documents-and-laws/Laws/The-Constitution/, last access: 26 June 2017 (follow "The Instrument of Government").

77 See Statens Offentliga Utredningar [SOU] 2008:99 Nya ersättningsbestämmelser i expropriationslagen, m.m. [government report series] (Swed.).

78 4 ch. 1 § Expropriationslag (SFS 1972:719).

The Swedish committee also proposed legislation on the aspect of gain sharing. Due to the conceptual difference between public takings (takings conducted by the state in the direct interest of the state) and private takings (takings where profit rather than the direct interest of the state is the motivation), the committee proposed gain sharing in private, economic development takings as follows: If a person has to surrender her property in favor of commercial entities that mainly operate in the marketplace, she should receive additional compensation. When such compensation is awarded, due consideration should be given to the value to taker principle.

The Swedish government agreed to the concept of gain sharing in private takings, but it did not like the open-texture of the proposed legislation. A new committee was established to review the proposition and recommended limiting the gain sharing idea to a handful of specific takings situation, like sites for telecommunication masts and towers.[79] Interest groups such as the Swedish farmer unions, however, have criticized the new, limited proposal. Furthermore, an independent governmental body that oversees proposed legislation has identified weaknesses in the proposed legislation, and it has been put on hold at present. When the process gets traction again, the Swedish government should keep a closer eye on the ultimatum game, consistent with the assessments made *supra V.2* of the U.S. trends.

4. Norway

What about Norway? There is no tradition of subjective value compensation, but there is a tradition for a sort of gain sharing in some specific takings situations, such as when the resource in question typically has a potential value. It used to be a 25 percent bonus to market value for takings of minerals, and such a bonus still exists for takings of waterfalls in order to establish hydroelectric power plants.[80] The bonus was established at a time when a functioning market for waterfalls didn't exist, so that the potential value was not reflected in any market value standard. During the last decades, in the aftermath of the deregulation of the European energy market, there has emerged a sort of marketplace for waterfalls – reflecting the potential value to a degree. Hence, the Norwegian Supreme Court has applied prices paid in private bargains to the fair market standard in some particular cases. This legal development led the government to consider an end to the 25 percent bonus, arguing that the bonus would lead to overcompensation. However, legal scholars have argued that the potential value is not sufficiently reflected in the current prices, and that there are waterfalls that are not subject to the particular Supreme Court precedent.[81] The proposal also created opposition during the public hearing and consultation process, and the Norwegian government now seems to have abandoned the initiative.

5. England and Wales

As pointed out *supra* Part II.2, the compensation measure in the United Kingdom was radically changed in 1919. They did away with the principle of "value to the owner", making it clear that no allowance should be made on account of the acquisition being compulsory.

Over the last decades legislation has to some extent restored the pre-World War I situation. In 1991 bonuses to fair market value were introduced for the loss of a home. In 2004 bonuses were introduced for ownership interests in general to recognize the fact that the owner is forced to sell.

Basic loss bonuses are paid if the qualifying interest "is a freehold or leasehold interest and it has subsisted for a year or more".[82] The bonus is 7.5 percent of fair market value, with a cap set at £75,000, that is: if the property has a market value of £1 million or more, the basic loss payment remains fixed at £75,000.[83] An additional 2.5 percent[84] bonus is awarded if the freeholder or leaseholder also occupies the land, with a cap set at £25,000.

For the loss of home, there are separate bonuses (such as basic and occupier's loss payment are not available in respect of property for which a home loss payment is payable).[85] To qualify for a home loss payment a person must have been in occupation of the dwelling as her only or main residence throughout the year.[86] Such persons who have "an owner's interest" get a bonus of 10 percent of the market value subject to a maximum of £47,000 and a minimum of £4,700.[87] An owner's interest means "an interest held by a person, other than a mortgagee who is not in possession, who is or the time

79 See Statens Offentliga Utredningar [SOU] 2012:61 Högre ersättning vid mastupplåtelser [government report series] (Swed.).

80 Law No. 17 of December 14, 1917, § 16 (Norway), available at: https://lovdata.no/dokument/NL/lov/1917-12-14-17, last access: 26 June 2017.

81 *Katrine Broch Hauge, Endre Stavang & Geir Stenseth*, Svekkje eigedomsvernet?, Nationen (Norway) (18 March 2013); *Katrine Broch Hauge, Endre Stavang & Geir Stenseth*, Framleis lite innsiktsfullt frå OED, Nationen (Norway) (1 April 2013).

82 *Michael Barnes*, The Law of Compulsory Purchase and Compensation (2014), p. 354.

83 *Ibid.*

84 The occupier's loss payment may also be calculated based on the land amount or the buildings amount – which in turn are different for agricultural land and other land – but in any case the calculation is subject to the £25,000 cap.

85 *Barnes* (fn. 82).

86 *Rowan-Robinson & Brand* (fn. 18), p. 237.

87 *Barnes* (fn. 82), p. 364.

being entitled to dispose of the fee simple of the land whether in possession or in reverse or a tenant under a lease or agreement for a lease the unexpired

term of which exceeds three years."[88] If the person has a relevant interest other than an owner's the bonus is £4,700. There are several such relevant interests, but in general "a right to occupy a dwelling under a licence is not enough".[89]

The English loss of home bonus is in principle in line with the endowment effect, even though the *bonus size* of 10 percent to the fair market value is far from what the endowment effect would suggest. The basic loss bonuses are on the other hand not exclusively connected to the pre-World War I private takings situations: A better idea in that respect would have been to assign the bonuses to situations where profit rather than the direct interest of the state are the motivation, and award bonuses equivalent to 20 percent of the net project gain, as the ultimatum game suggests. The occupier's loss bonuses seem to fall somewhat in between.

VI.
CONCLUSION

The ultimatum game and endowment effect experiments shed light on why people often strongly oppose to expropriation. Of course, there are other explanations. What's intriguing with these experiments is that they enable us to quantify some key components to the negative reactions: They suggest what size of bonuses unwilling sellers typically have to receive to become willing sellers.

These are interesting insights in their own right – on the theoretical level –, which may lead to a more differentiated view on how people comprehend various situations of possession and ownership. In turn, these insights may also help us create legal tools to reduce the use of force needed to carry out expropriations. If we want that – on the expense of e.g. distributive justice –, the theoretical lessons may be enacted as guidelines for legal action.

So, let's assume – as given – that we set out to design legislation that awards bonuses to the fair market value standard. What should it look like?

When it comes to *bonuses to fair market value to compensate "subjective value"*, legislation that *limits* bonuses to home-owners and the like is better than legislation that awards bonuses in every takings situation. When bonuses are awarded, adding 50 percent to fair market value seems reasonable.[90]

When it comes to *bonuses in economic development* takings, legislation that awards bonuses should relate it to the net gain of the project, not to fair market value. Such bonuses should be awarded in every private takings situation that involves economic development. When bonuses are awarded, adding at least 20 percent of the net gain to fair market value seems reasonable.[91] To really large project gains, there might be a cap – or the share might decrease with increase in project gains.[92]

Where the two situations *overlap*, the home owner should get the 20 percent share on top of the "subjective value" bonus. Why? As indicated *supra* Part III.3.2, in the ultimatum game setting, the Responder gives up nothing but the potential gain. In the takings setting, on the other hand, the condemnee has to give up her property in order to get access to a share in the gain. As long as we presuppose that the 20 percent share represents the low level for a fair split of her "windfall" part of the taking, she would not accept such a percentage if she is not motivated to sell her property to begin with. In order to compensate the fact that she is forced to sell, the 20 percent share should in consequence be put on top of the "subjective value" bonus.[93]

88 *Ibid.*, p. 364–365.
89 *Ibid.*, p.362.

90 See *supra* Part IV.2.2.
91 See *supra* Part III.3.2.
92 See *supra* Part III.3.3.
93 If the jurisdiction in question chose to implement a percentage (significantly) higher 20 percent, this might be different. In a case where the value gap between 20 percent and the percentage chosen exceeds the "subjective value" bonus, the condemnee would likely shift from being an unwilling seller to a willing seller, and a "subjective value" bonus would be out of place.