

Current Empirical Premises to the Disclosure of the Secrets of Property in Law

A Foundation and a Guideline for Future Research

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Summary¹

This article presents an empirical legal study in the field of property theory. I take as my point of departure the perspective of exclusion. Such a basic perspective falls short, however, when we conceptualize the exceptions from the exclusion rule. In this respect, a diversified set of considerations and concerns claims attention, including the nature of the relationship between the possessor and the object in question. This research digs into the new achievements in the fields of economics and life sciences, investigating the validity and relevance of arguments which may be derived from the possessor-object dimension. The findings suggest a differentiated view on how people comprehend various situations of possession, and the article proposes a gradual theoretical model for shaping and managing the legal concept of property in this respect. Finally, I indicate some practical legal topics which may take advantage of the model (e.g. the field of expropriation, the problem of whether a possession should be protected by a property rule or by a liability rule, and the problems related to property as a human right).

1. Introduction and perspectives

1.1 Starting points

A couple of decades ago, Margaret Jane Radin revitalized the concept of what she called personhood property. She argued that personhood property was worthy of a higher degree of legal protection than offered by the existing legal property concept.² Her view emphasized the relationship between subject-object. Such a way of thinking differs from how mainstream jurists think of property: as a third party-object relationship. As such, property is simply a legal concept that obliges people (representing themselves, corporations or states) to restrain from interfering with objects (physical things or ideas) that, in the society in question, receive such protection. Within such a concept, it does not matter what relationship there is between the object and the specific owner: The different objects ought to

2 Margaret Jane Radin, Property and personhood, in Margaret Jane Radin, *Reinterpreting property* (Chicago and London, 1993), 35–71. The thought that (different interpretations of) personal property needs particular legal protection is far from new and can be connected to natural law impressions. This is not the place to go further into the history and development of different versions of natural law comprehensions. We shall only point out two approaches to personal property by some of the most influential legal philosophers of the 20th century. Rawls claims that among “the basic rights is the right to hold and to have the exclusive use of personal property. One ground of this is to allow a sufficient material basis for personal independence and a sense of self-respect, both of which are essential for the adequate development and exercise of the moral powers ... I do not consider here what falls under this personal right, except to say that it would seem to include at least certain forms of real property, such as dwellings and private grounds.” On the other hand, Hart claims that it “is a merely contingent fact that human beings need food, clothes, and shelter; that these do not exist at hand in limitless abundance; but are scarce, have to be grown or won from nature, or have to be constructed by human toil. These facts alone make indispensable some minimal form of the institution of property (though not necessarily individual property), and the distinctive kind of rule which requires respect for it. The simplest forms of property are to be seen in rules excluding persons generally other than the ‘owner’ from entry on, or the use of land, or from taking or using material things ... At all times and places life itself depends on these minimal forbearances.” See *John Rawls* (edited by Erin Kelly), *Justice as fairness. A restatement* (Cambridge, Mass., and London, 2001), 114 (the last sentence occurs in footnote 36); *H. L. A. Hart*, *The concept of law* (eleventh impression, Oxford, 1981), 192.

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be respected to the extent the law protects the class of objects.

The importance of distinguishing between these two relations and perspectives when making legal arguments is one of the main themes of this article. They are illustrated in figures 1 and 2 below.

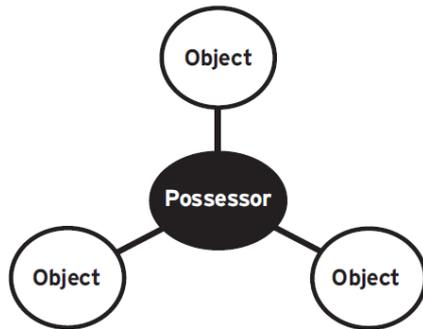


Fig. 1

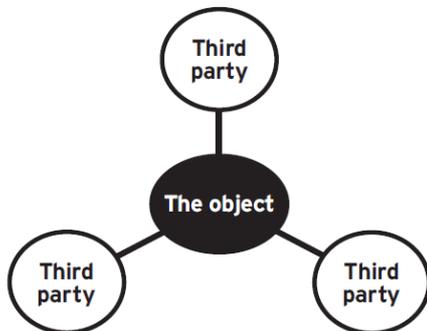


Fig. 2

1.2 Two influential philosophical perspectives on the concept of property

From a philosophical point of view, the moral groundings for property phenomenon can roughly be explained from two different perspectives: the empiricist and the rationalist traditions. We will summarize here how two of the most commonly contrasted philosophers treat the idea of property: David Hume from a fundamental empiricist point of view and Immanuel Kant, who treats it according to his own very influential kind of rationalism (transcendental idealism). An insight into their different views enables us to better understand the relevance of distin-

guishing between the legal concept of property from the possessor's and the third parties' point of view when making legal arguments, respectively.

For Hume, the idea of property emerges from basic human necessities – the very basic needs for every person to have a stable and durable relationship to food, clothing and lodging. It is a matter of expedient, practical social behavior. In his view, the legal concept of property has no other foundation than human experience and the human constitution: i.e. how to satisfy ourselves, how to create legal rights out of our possessions.³ Alternatively, in Kant's view, the existence of the legal concept of property is, in principle, totally independent of human experiences and the human constitution. It is purely a derivation from the categorical imperative – the single moral *duty* that all rules for human action can be traced back to⁴: act only on that maxim by which you can at the same time will that it should become a universal law.⁵

Hume's method is inductive. The individual is his focal point – the legal rule is based on every single person's need for stability in his possessions. Kant's method, rather, is

3 David Hume, *A Treatise of Human Nature*. Edited, with an analytical index, by L. A. Selby-Bigge (second edition with text revised and variant readings by P. H. Nidditch, Oxford, 1978). His point of departure is: "This avidity alone, of acquiring goods and possessions for ourselves and our nearest friends, is insatiable, perpetual, universal, and directly destructive of society" (491–492). However, he observes "that it will be for my interest to leave another in the possession of his goods, *provided* he will act in the same manner with regards to me" (490). In this way, man has realized that it is in his best interest to "leave every one in the peaceable enjoyment of what he may acquire by his fortune and industry. By this means, every one knows what he may safely possess." Hume emphasizes this as a basic need for every human being, because not "only the food, which is requir'd for his sustenance, flies his search and approach, or at least requires his labour to be produc'd, but he must be possess'd of cloaths and lodging, to defend him against the injuries of the weather." Through experience "the rule concerning the stability of possession" gradually will evolve and strengthen, and "this experience assures us still more, that the sense of interest has become common to all our fellows, and gives us a confidence of the future regularity of their conduct" (490). Hume points out that even "when society has become numerous, and has encreas'd to a tribe or nation ... we never fail to observe the prejudice we receive, either mediately or immediately, from the injustice of others" (499). – Able to draw on over 250 years of accumulated knowledge, it is remarkable how little change there is to acknowledge when one of the leading scholars of our time describes the same phenomenon: "The first loyalty of every individual is not to the group, however, but to itself and its kin. With increasing social integration and reliance on cooperation, shared interests must have risen to the surface so that the community as a whole became an issue. The biggest step in the evolution of human morality was the move from interpersonal relations to a focus on the greater good ... Most individuals have much to lose if the community were to fall apart, hence the interest in its integrity and harmony", *Frans de Waal, Primates and philosophers*. How morality evolved (Princeton and Oxford, 2006), 53–54.

deductive. He starts with a given universal duty, and deduces from that how the law ought to be. Where Hume makes it easy to think of property as a right for the individual, Kant makes it easy to think of property as a duty. In other words, Kant's view is suitable to highlight the legal concept of property from the third parties' point of view – their property duties are stable and independent from what relationship there may be between the possessor and the thing in question (cf. fig. 2 above). Hume's view completes the picture from the possessor's perspective. Defending possessions tends to be driven by emotions, and the strongest emotions appear when the stability of an individual's basic needs is challenged. From this viewpoint, the legal

concept of property is induced by such individual emotions. Consequently, how these emotions vary due to the character of different subject-object relations and the various contexts where these relations appear are clearly relevant when handling property as a legal phenomenon.

1.3 Introductory perspectives on the legal concept of property

As a good illustration of the struggle between the possessors' and the third parties' perspective when it comes to conceptualizing the legal theory of property, I refer to James Penner, *The Idea of Property in Law*.⁶ For Penner, the *law of property* basically takes the perspective of exclusion,⁷ a view consistent with Kant's methodological reliance on the concept of a formal universal duty owed to every member of society.⁸ This formal view of the legal concept of property implies a huge practical strength. The perspective of exclusion liberates us from the need to investigate the relationship between another person and an object.⁹ A person simply has the duty to keep away from all objects that

- 4 Kant proposed several formulations of the categorical imperative. The formulation referred to here is the so-called formula of universal law, as translated in *Immanuel Kant, Groundwork for the metaphysics of morals* (translated by Arnulf Zweig and edited by Thomas E. Hill, Jr. and Arnulf Zweig, Oxford and New York, 2002), 222. ("Der kategorische Imperativ ist also nur ein einziger und zwar dieser: handle nur nach derjenigen Maxime, durch die du zugleich wollen kannst, daß sie ein allgemeines Gesetz werde," *Immanuel Kant, Grundlegung zur Metaphysik der Sitten* (herausgegeben und eingeführt von Theodor Valentiner, Stuttgart, 1967), 68.)
- 5 *Immanuel Kant, The metaphysics of morals* (translated and edited by Mary Gregor, with an introduction by Roger J. Sullivan, Cambridge, 1996). (*Immanuel Kant, Metaphysische Anfangsgründe der Rechtslehre. Metaphysik der Sitten Erster Teil* (neu herausgegeben von Bernd Ludwig, Hamburg, 1986).) Kant claims that ownership presupposes the possibility that another person's use of an object which is not in my physical possession still can imply an injustice against me. Therefore, the concept of possession must have two different meanings: The physical possession and the non-physical – "intelligible" ("intelligibelen") – possession. The "merely rightful" ("bloß-rechtlicher") possession is the latter one, *ibid.*, 37 (*ibid.*, 53). Kant emphasizes that the "concept of merely rightful possession is not an empirical concept (dependent upon conditions of space and time)," *ibid.*, 42 ("Der Begriff eines bloß-rechtlichen Besizes ist kein empirischer (von Raum- und Zeitbedingungen abhängiger) Begriff," *ibid.*, 59). The apprehension of such a concept is purely a matter of reason. The concept cannot be proved by itself or be apprehended as an immediate truth. It can only be understood by deducing it from Kant's categorical imperative itself, *ibid.*, 42 (*ibid.*, 59). The categorical imperative is of a priori nature – separated from all empirical experience, and is the only answer to the question of the possibility of property: "The question: how is it possible for something external to be mine or yours? resolves itself into the question: how is merely rightful (intelligible) possession possible? and this, in turn, into the third question: how is a synthetic a priori proposition about right possible?" *ibid.*, 39 ("Die Frage: Wie ist ein äußeres Mein und Dein möglich? löst sich nun in diejenige auf: Wie ist ein bloß-rechtlicher (intelligibeler) Besitz möglich? und diese wiederum in die dritte: Wie ist ein synthetischer Rechtssatz a priori möglich?" *ibid.*, 56). The concept of purely de jure (intelligible) possession makes it possible for a person to declare an object as his, in a way that everybody else is obliged to exclude themselves from using the object. Equally important, the concept stimulatingly implies that such a declaration obliges the person to exclude himself from using an object that another person holds as his – "for the obligation here arises from a universal rule having to do with external rightful relations," *ibid.*, 44 ("... denn die Verbindlichkeit geht hier aus einer allgemeinen Regel des äußeren rechtlichen Verhältnisses hervor," *ibid.*, 63).

- 6 J. E. Penner, *The idea of property in law* (Oxford, 1997).
- 7 "It is my contention that the law of property is driven by an analysis which takes the perspective of exclusion, rather than one which elaborates a right to use. In other words, in order to understand property, we must look to the way that the law contours the duties it imposes on people to exclude themselves from the property of others, rather than regarding the law as instituting a series of positive liberties or powers to use particular things. This can be expressed as follows, in what I shall call the *exclusion thesis*: the right to property is a right to exclude others from things which is grounded by the interest we have in the use of things", *ibid.*, 71 (on 152 Penner proposes a revised and extended definition of property).
- 8 In Kant's view, the concept of purely de jure possession – property – does not at all concern the relationship between a person and an object, but the relationship between person and person. While physical possession is the perceptible relationship between a person and an object, property implies a non-empirical (intelligible) relationship between persons, *Kant, The metaphysics of morals*, 55 (*Kant, Metaphysische Anfangsgründe der Rechtslehre*, 73–74). He gives the following example: "But it is clear that someone who was all alone on the earth could really neither have nor acquire any external thing as his own, since there is no relation whatever of obligation between him, as a person, and any other external object, as a thing. Hence, speaking strictly and literally, there is also no (direct) right to a thing. What is called a right to a thing is only that right someone has against a person who is in possession of it in common ... with all others (in the civil condition)," *ibid.*, 49–50. ("Es ist aber klar, daß ein Mensch, der auf Erden ganz allein wäre, eigentlich kein äußeres Ding als das Seine haben, oder erwerben könnte; weil zwischen ihm, als Person, und allen anderen äußeren Dingen, als Sachen, es gar kein Verhältnis der Verbindlichkeit gibt. Es gibt also, eigentlich und buchstäblich verstanden, auch kein (direktes) Recht in einer Sache, sondern nur dasjenige wird so genannt, was jemandem gegen eine Person zukommt, die mit allen Anderen (im bürgerlichen Zustande) im gemeinsamen Besitz ist," *ibid.*, 69–70.)
- 9 See Penner's discussion of norms and rights *in rem*, *The idea of property in law*, 23–31 and Henry E. Smith, *Community and Custom in Property*, *Theoretical Inquiries in Law* 10 (2009), 5–41, which includes further references in this respect (15–18).

(a) the society in question protects as property and (b) do not belong to him. What relationships others may have to such objects are, in principle, of no interest as far as our right to intervene with external objects is concerned.

While the advantages of a formal conception of property are obvious, the very clear dichotomy contained within it carries innate danger. It creates a state of mind that easily prevents us from paying attention to the relationship between the object and its owner, particularly in situations where the simplicity of the formal property rule is not applicable. In everyday decision-making, it is possible to use a simple and general rule to determine what is mine and what is yours. In complex situations, however, a rule is needed that can take into account particular exceptions and a myriad of different interests. As Penner also points out, it is our interest in the use of property which grounds the general property duty *in rem*; this is the justification of the right.¹⁰ In this respect, Penner is consistent with Hume's method, taking as his starting point an individual's specific need for stability in his possessions. According to this, when we (for instance) regulate how to make exceptions from the right to exclude, we should not overlook this question: to what extent do owners feel the need for keeping various objects in different situations? Or to rephrase in accordance with Penner: how strong is the owners desire to protect the right to use their property in various contexts?¹¹ In situations like this, it makes sense to renounce the simplicity of the Kantian model in favor of a gradual duty to keep away from others' property, due to the relationship between the possessor and the object in question. This should, for example, clearly be a relevant approach when we evaluate governmental use of eminent domain power, in the related discussions on whether a possession should be protected by a property rule or by a liability rule,¹² and to problems related to the peaceful enjoyment of possessions as a human right.

1.4 The proceedings of the text

As pointed out above, in legal decision-making there exists a need to graduate the strength of the duty to keep away from others' property in accordance with the relationship between the possessor and the object in question. How do we comprehend, conceptualize, test and measure such a relationship? Traditionally, the law has rested on casual observation and common sense in combination with how the legal tradition shapes the way jurists tend to evaluate facts and human behavior. Today, we can also include another tool: a large amount of systematic studies on human behavior and the human mind.¹³ In chapter 2, we are going to examine to what extent systematic studies and analyses carried out by psychologists, economists, evolutionary biologists and neuroscientists may help us understand the relationship between the possessor and the object in ways relevant to the legal concept of property. The two key achievements from this can, at this point, be succinctly exposed as such: (1) that our notion of property basically does not depend on the formal legal system, and (2) that a distinction between the private and the commercial sphere occurs when it comes to how possessions are comprehended and valued. In chapter 3, we will propose a model for the legal concept of property which deals with the tension between the possessor-object dimension and the third parties-object dimension. The point of departure is to establish a foundation for why it appears meaningful to understand the legal concept of property as a unified normative concept. The key idea of the chapter is to single out the possessor-object dimension within the concept of property, expressively emphasizing its relation to the third parties-object dimension. We do that by placing the possessor-object dimension at the core, representing the fundamental human tendencies of behavior towards possessions that derive from chapter 2. Outside the core, the concept of property stretches out, embracing a plethora of different yet related considerations and human states of minds.

10 "On this formulation [supra footnote 7] use serves a justificatory role for the right, while exclusion is seen as the formal essence of the right. It is our interest in the use of property which grounds the right *in rem* to property and the correlative general duty *in rem*; yet exclusion is the practical means by which that interest is protected, and that makes all the difference to our understanding of property", *ibid.*, 71.

11 Discussing the question "What is Property?", *Thomas W. Merrill and Henry E. Smith* give some references to the relationship between the "normal" rule and an "exception", see *Property: principles and policies* (New York 2007), 1–22 (see especially 22 *i.f.*).

12 See the cornerstone article: *Guido Calabresi and A. Douglas Melamed*, Property rules, liability rules, and inalienability: one view of the cathedral, *Harvard Law Review* 85 (1972), 1089–1128.

13 Jon Elster puts it this way: "To understand how people act and interact, we first have to understand how their minds work. This is largely a matter of introspection and folk psychology, refined and corrected by the more systematic studies carried out by psychologists and, increasingly, by behavioral economists." And he makes way for neuroscience as well: "The search for the psychological (often neuropsychological) basis for complex human behavior has been carried to a new pitch in recent years, largely as a result of new measurement and observation techniques. There is little doubt that this line of investigation has a great future, even though some current exercises may be premature, crude, or speculative." See *Jon Elster*, *Explaining social behavior: more nuts and bolts for the social sciences* (Cambridge and New York, 2007), 67 and 261.

In chapter 4, examples are given for the practical legal implications of the proposed model. When it comes to the use of eminent domain power, the model sets an especially high bar for governmental intervention for cases within the core of the model. If such interventions are made, the compensation should reflect the object's value for the possessor instead of the value it has for the third parties ("market value"). When it comes to the related discussion of whether a possession should be protected by a property rule or by a liability rule, the model similarly implies that a property rule regime is suitable for cases within the core of the model, while possessions outside the core are suited for a liability rule regime. When it comes to the problems related to possessions as a human right, the model implies that granting human rights status makes most sense when it comes to cases within the core of the model.

The results, analyses, and suggestions in the article should, in principle, be applicable to the concept of property in any legal system. The legal points of departure in chapter 3 below and the specified examples in chapter 4, though, are mainly concerned with the legal systems in the U.S. and in Norway

2. Some current empirical findings and analyses

2.1 The field of psychology – new advances in "psychological ownership"

In their 2003 article, Jon L. Pierce et al. summarize a century of research on "Psychological Ownership",¹⁴ a phenomenon they define "as the state in which individuals feel as though the target of ownership ... is "theirs" (i.e., "It is mine!")."¹⁵ They claim that psychological ownership is rooted in a set of three motives: "efficacy and effectance, self-identity, and having a place (home)."¹⁶ They also propose three major experiences through which psychological ownership emerges: controlling the ownership target, intimately knowing the target, and investing the self into the target.¹⁷ Additionally, they emphasize three moderating factors affecting the emerging process through enhancing or impeding its development: the characteristics of the individual, the potential ownership target, and the context.¹⁸

14 Jon L. Pierce et al., The state of psychological ownership: integrating and extending a century of research, *Review of General Psychology* 7 (2003), 84–107.

15 Ibid., 86.

16 Ibid., 91.

17 Ibid., 92–93.

18 Ibid., 103. – As one aspect of the significance of the context, Pierce et al. points on the influence of the legal system, and the possible interaction between legal and psychological ownership: Legal ownership may facilitate the three mentioned major experiences and by that speed up the emerging process of psychological ownership, *ibid.*, 96.

Pierce et al.'s conceptualization implies a dynamic phenomenon. The relationship between an individual and the target of ownership is not a stable one. The motivation and experiences of the individual vary over time. 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 produced the psychological state of ownership. A change in the underlying motive (e.g. the emergence of a new place in which to dwell) or a disappearance of experiences through which psychological ownership emerges (e.g. loss of control) will contribute to such decoupling.¹⁹

Pierce et al. emphasize that their concept of psychological ownership is distinctively different from legal ownership.²⁰ They recognize, on the one hand, that psychological ownership can exist in absence of legal ownership and, on the other hand, that legal ownership can exist in absence of psychological ownership.²¹ How they see the relationship between the two concepts can be illustrated as in fig. 3 below. The square represents all the objects a person owns in the psychological sense, the grey shades represents to what extent she perceives the different objects as "hers" (darker grey, stronger feelings of ownership). The circle represents all the objects the same person legally owns.

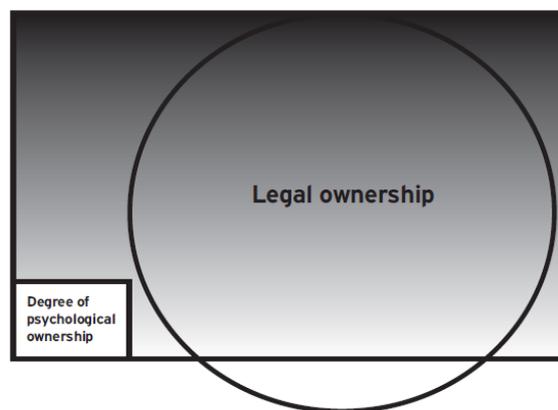


Fig. 3

19 Similar decoupling effects will emerge, they argue, "as targets become less visible, attractive, manipulable, open, or receptive", *ibid.*, 97.

20 Ibid., 86 and 96.

21 Ibid., 87 and 95. – On 96 Pierce et al. refer to a study which showed that truck drivers did not feel ownership for the trucks they operated, until a new company policy was implemented that assigned each driver to a particular truck. Then the drivers gradually began to refer to their truck as "my" truck, to clear its interior, and to attend to mechanical maintenance. – On the other hand, on 95 Pierce et al. assume that even if an individual has purchased an object with hard-earned cash, he do not necessarily feel a sense of ownership to it.

The reason why the concept of psychological ownership can be separated from the legal concept of ownership is that psychological ownership can be defined as a matter of actual and individual feelings. In other words, it is a conceptualization and explanation of the factual relationship between the possessor and the object, cf. fig. 1 above. On the contrary, legal ownership (as comprehended by Pierce et al.), is first and foremost recognized by the society as a formal matter, cf. fig. 2 above.²²

In our search for an explanation and conceptualization of the relationship between the possessor and the object, we have found a candidate in the concept of psychological ownership. We also sought test methods and measurement, and here the concept falls short. Even Pierce et al. expressly acknowledges the need for empirical testing and research on psychological ownership. They point out an important problem from a legal point of view: The need for development and validation of a measurement instrument. With this in mind, let us examine what the next candidate on the list – the field of economics – has to offer.

2.2 *The field of economics – new advances on the “endowment effect”*

2.2.1 *Introduction and basic remarks*

The concept of “loss aversion” follows from prospect theory, which is an influential alternative to rational choice theory.²³ The mechanism of loss aversion, including the methods which have been used to test the theory, is an interesting candidate for measuring some aspects of the relationship between the possessor and her object. One especially interesting implication is the “endowment effect”, a phenomenon in which the possessor values her possession more than a third party would value it. Jon Elster, who describes this phenomenon as a “choice-induced but unintended preference change,” explains it as follows:

22 Legal ownership can, though, serve an indirect function for psychological ownership: “Note, however, that legal ownership may facilitate and speed up the emergence of psychological ownership, because it allows the individual to explore the three routes leading to this state”, *ibid.*, 96.

23 This theory, created by Daniel Kahneman and Amos Tversky, has shortly been described like this: “Loss aversion is defined with respect to a reference point, on the assumption that people attach value to changes from a given baseline rather than to the end states obtaining after the change. The reference point is typically taken to be the status quo, although subjects may be induced to choose other reference points. Loss aversion is the tendency for people to attach larger value (in absolute terms) to a loss from the reference level than to a same-sized gain”, *Jon Elster*, *Explaining social behavior: more nuts and bolts for the social sciences* (Cambridge and New York, 2007), 221.

“Many goods acquire greater subjective value for the owner than they had before she bought them, as shown by the fact that her minimal selling price typically exceeds her maximal buying price by a factor ranging from 2 to 4. Since most goods are evaluated as a loss when given up and as a gain when acquired and since losses count more heavily than same-sized gains, this is what loss aversion predicts. In addition, experiments show that prospective buyers underestimate the minimal resale price they would accept, showing that the preference change is indeed unforeseen.”²⁴

While Pierce et al.'s concept of psychological ownership mainly explains and conceptualizes the relationship between the possessor and the object, the theory of and experiments on the endowment effect offers test methods and measurement of such a relationship.²⁵ The effect has been replicated in numerous experiments,²⁶ seems to be broadly recognized by scholars,²⁷ and appears able to contribute to the legal comprehension of the relationship between the possessor and the object in several significant ways.

Firstly, it verifies and to some extent quantifies some aspects of the difference between the possessor-object relationship and the third party-object relationship. According to the Elster's quote above, the owner's minimal selling price typically exceeds a third party's maximum buying

24 *Ibid.*, 301.

25 Dan Ariely et al. say it like this: “When we stand back and examine the literature on the endowment effect, it is difficult not to be impressed by how much attention the phenomenon has attracted in terms of number of publications. At the same time, it is surprising to observe how little is known about the psychology that underlies the phenomenon”, *Dan Ariely et al.*, *When do losses loom larger than gains*, *Journal of Marketing Research* XLII (2005), 134–138 (135).

26 See for instance the experiments mentioned *infra* footnotes 33 and 48. Both studies include further references.

27 The robustness of the endowment effect experiments is questioned in *Charles R. Plott and 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* 95 (2005), 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 SSRN: <http://ssrn.com/abstract=892336> (last access: May 19, 2008). *Charles R. Plott and Kathryn Zeiler* follow up in the article *Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory?*, *The American Economic Review* 97 (2007), 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” (1462).

price by a factor ranging from 2 to 4.²⁸ However, the different test designs are significant for the size of the factor. Two recent experiments are given particular attention in part 2.2.2 and 2.2.3 below. One of them refers to an owner's price / third party's price ratio of 1.39 as typical in magnitude.²⁹ The other experiment holds a ratio of 1.85 to be close to the values observed in previous experiments.³⁰ The variations are not the main focus here. The point is that the experiments systematically show that the possessor values her objects significantly higher than a third party values it. And the possessor seems at least to value the object at approximately 150 percent of the value stated by the third party.³¹

Secondly, 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 third party. This clear dichotomy does not, however, imply that the duration of ownership does not affect the endowment effect. In 1998, Michal A. Strahilevitz and George Loew-

enstein showed that the effect of endowment goes beyond the immediate effect of current ownership and includes the duration of current and past ownership.³²

From what is laid out so far, the endowment effect seems to depart from Pierce et al.'s concept of psychological ownership in two significant ways. Both have particular relevance for the legal aspects of the relationship between the possessor and the object. Firstly, as Pierce et al. conceptualized a highly gradual and dynamic phenomenon, the endowment effect appears more confined in its essence. Secondly, as Pierce et al. distinctively differentiate between the concept of psychological and legal ownership, the endowment effect experiments seem not to emphasize such a distinction. Below, however, we are going to investigate two particular recent experiments and developments of the theory of the endowment effect. Both of them seem to reduce the mentioned differences, and represent highly interesting advancements when it comes to analyzing the legal aspects of the relationship between the possessor and the object.

2.2.2 Do intentions affect the endowment effect?

In 2005, Nathan Novemsky and Daniel Kahneman published an article proposing some psychological principles to describe the boundaries of loss aversion.³³ Their key

28 One of the most recent accounts of the different results of the experiments is to be found in *Owen D. Jones and Sarah F. Brosnan, Law, biology, and property: a new theory of the endowment effect, William and Mary Law Review* 49 (2008), 1935–1990 (1947–1949), including further references.

29 *Jochen Reb and Terry Connolly, Possession, feelings of ownership and the endowment effect, Judgment and Decision Making* 2 (2007), 107–114 (109).

30 *Nathan Novemsky and Daniel Kahneman, The boundaries of loss aversion, Journal of Marketing Research* XLII (2005), 119–128 (123).

31 As Daniel Kahneman has pointed out to me, the essence of the psychological view is that ownership is not valued as such. What is valued is the action that changes ownership, and this is very much the same idea as in prospect theory and comes from there. – This reminder does not, however, make the psychological view less interesting for the study conducted here: investigation of the significance of distinguishing between the possessor-object dimension and the third parties-object dimension, including the different degrees of weight that may be attributed to arguments derived from the former dimension. On the contrary, the psychological view highlights the importance of treating of the two dimensions as different states of mind. One central idea when it comes to prospect theory is that the significant carriers of utility are not states of wealth or welfare, but changes relative to a neutral reference point. Another central idea is that losses tend to loom larger than corresponding gains. Consequently, the possessor-object dimension and the third parties-object dimension may be comprehended as different reference points relative to the same object. For the possessor the object represents a potential loss; for the third parties it represents a potential gain. If we accept that the law of property basically takes the perspective of exclusion, one of the main functions for the legal concept of property is to regulate (potential) changes of possessions: when and how to make exceptions from the basic rule. Prospect theory seizes an aspect of the difference in utility from the possessor's and the third parties' perspective respectively, when changes of possessions occur.

32 *Michal A. Strahilevitz and George Loewenstein, The effect of ownership history on the valuation of objects, Journal of Consumer Research* 25 (1998), 276–289. – Strahilevitz and Loewenstein expressed three hypotheses in front of the experiment: (1) An individual's selling price for a current possession will increase as a function of how long the person has owned the object; (2) An individual's buy-back price for a previously owned object will increase as a function of how long the person had owned the object; (3) An individual's buy-back price for a previously owned object will decrease as a function of how much time has passed since the object was lost. The experiments itself involved various inexpensive goods (mugs, key chains), and were conducted in relatively short time spans (within a range of an hour). – Firstly, the endowment effect was replicated in the experiment. Secondly, and what is of most interest for our point here, the results of the experiments supported the two first of the three hypotheses mentioned above. The results showed selling prices that increased as a function of how long the object had been owned. Further, the results indicated that having once owned an object may increase the value attached to attaining it, and the longer an object was owned before it was lost, the more value was attached to it. On the other hand, the results did not show support for the idea that an individual's buy-back price for a previously owned object decreases as a function of how much time has passed since the object was lost. Despite the results, Strahilevitz and Loewenstein did not find that their results ruled out such a hypothesis. One reason for the lack of support in the experiments can be that the effect of time elapsed since loss requires a time interval longer than an hour. – As Strahilevitz and Loewenstein expressly recognize, their study are subject to caution against generalisation. Further research is necessary to provide information on how longer time spans than an hour will affect the endowment effect, and how the character of the actual object will affect it (especially how the endowment effect operate on objects of much higher relative value, as homes and cars).

idea is that exchange goods that are given up “as intended” do not exhibit loss aversion. In the experiments reported, the researchers used various inexpensive goods, such as chocolates, pens, and mugs.

Somewhat schematically, the conduct of the experiments is reported below. The participants in the experiments were divided into five groups. Group 1 (“choosers”) was offered a choice between receiving a good and receiving an amount of money (they could choose from a list of different amounts of money). In group 2 (“sellers”), participants were given a good and told that it was theirs to keep. Then they were asked to give up the good in exchange for money (they could choose from the same list of different amounts of money as group 1). In group 3 (“buyers”), participants were offered an opportunity to buy a good at various prices using their own money (they could choose from the same list of different amounts of money as group 1 and 2). In group 4 (“risky sellers”), participants were given a good and told that it was theirs to keep. Then they were offered a gamble with equal chances (a) to win an amount of money and keep their good or (b) to lose the good and receive no money. Participants indicated whether they would accept or refuse the gamble for each dollar amount from the earlier mentioned list. In group 5 (“risky buyers”), participants were offered a gamble with equal chances (a) to receive a good and pay nothing or (b) to pay the selected money from the mentioned list without receiving the good.

The results show that the selling prices were higher than the choosing prices, replicating the endowment effect for goods.³⁴ Conversely, there was no significant difference between the choosing prices and the buying prices.³⁵ From this, the researchers drew the conclusion that there was no loss aversion for money given up in a purchase. If there were loss aversion for the money that buyers gave up, one would expect their prices to be significantly lower than choosing prices.

For group 4 and 5, an element of risk was added to the basic transactions of buying and selling. The results show that risky selling prices do not differ significantly from selling prices.³⁶ On the other hand, “risky buyers” stated a price that was approximately half of the “buyers”.³⁷ In Novemsky and Kahneman's interpretation, these results

show that there is no risk aversion beyond loss aversion in balanced risks. Otherwise, “risky sellers” should have set higher prices than “sellers”. This finding, they argue, “further supports the idea that there is no loss aversion for money that is given up in routine purchases, because it suggests that the difference between buyers and risky buyers can be attributed to loss aversion in the latter but not in the former. Any risk-related differences between buyers and risky buyers would have been mirrored with sellers and risky sellers, assuming risk aversion operates similarly for buying and selling.”³⁸

Novemsky and Kahneman present three propositions that they derive from the mentioned experiments and previous loss aversion research. The one we shall highlight here is the following: “Goods that are exchanged as intended are not evaluated as losses.”³⁹ This proposition builds on the consistency between the present results and the results demonstrated in Daniel Kahneman, Jack L. Knetsch, and Richard Thaler: “Experimental Tests of the Endowment Effect and the Coase Theorem.”⁴⁰ Novemsky and Kahneman interpret the results that money is normally held for the purpose of exchange, and there is no loss experienced when that purpose is fulfilled.⁴¹ They generalize their interpretation to all goods that are held for the purpose of exchange, pinpointing the phrase “as intended” in the mentioned proposition as the key idea. Thus, the same good can be intended for different purposes by the same person and by different persons, and the intention can produce or inhibit loss aversion, 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.⁴²

In a discussion immediately following Novemsky and Kahneman's article, some attention was drawn to the psychology that underlies the phenomenon.⁴³ Novemsky and Kahneman comment on the discussion:

33 *Nathan Novemsky and Daniel Kahneman*, The boundaries of loss aversion, *Journal of Marketing Research* XLII (2005), 119–128.

34 The aggregate estimate of this ratio is reported to be 1.85, which is close to the values observed in previous experiments, according to the article, *ibid.*, 123.

35 The aggregate estimate of the ratio of the selling prices to the buying prices is reported to be 1.07, *ibid.*, 123.

36 The aggregate estimate of the ratio of the risky selling prices to the selling prices is reported to be 0.91, *ibid.*, 123.

37 The aggregate estimate of the ratio of the buying prices to the risky buying prices is reported to be 2.31. The researchers remark that that the results from this comparison were highly variable between the different experiments, and that further empirical work is needed to demonstrate the result definitely, *ibid.*, 123.

38 *Ibid.*, 123.

39 *Ibid.*, 124. The two other propositions are: “The value attached to a consumption good that is given up in an exchange reflects loss aversion”, *ibid.*, 123, and: “There is no risk aversion beyond loss aversion in balanced risks”, *ibid.*, 125. According to Novemsky and Kahneman, all three of them are subject to exceptions and/or uncertainty.

40 See *Daniel Kahneman et al.*, Experimental tests of the endowment effect and the Coase theorem, *Journal of Political Economy* 98 (1990), 1325–1348.

“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.”⁴⁴

Novemsky and Kahneman also suggest other boundaries of loss aversion. They suggest that if all the benefits of a good that is given up are present in the acquired good, no loss aversion will occur. The hypothesis is that loss aversion operates on benefits rather than on attributes of the goods. Thus, goods with different attributes that provide the same benefits can be exchanged without loss aversion. What matters is not objective similarity, but the person's perception of the relationship between the good that is given up and the one that is acquired. Novemsky and Kahneman claim that this proposition is consistent with prior research that has found less loss aversion occurs when close substitutes are exchanged.⁴⁵

41 Although this idea is consistent with a lot of prior research, there are also experiments showing loss aversion for money, see *Ian Bateman et al.*, A test of the theory of reference-dependent preferences, *The Quarterly Journal of Economics* 112 (1997), 479–505 and *Ian Bateman et al.*, Testing competing models of loss aversion: an adversarial collaboration, *Journal of Public Economics* 89 (2005), 1561–1580. Novemsky and Kahneman give a hypothesis of the cause of this discrepancy. Loss aversion for money may occur for people whose budget only covers necessities. In such a case, acquisition of a good which are not budgeted for may be associated with giving up some other good, which are evaluated as a loss. While most studies showing the endowment effect have been conducted among students in North America, Bateman et al. used U.K. students. The latter may have tighter budgets, which lead to loss aversion when spending money. Novemsky and Kahneman emphasize that additional evidence is necessary to test this hypothesis, and that other factors also may have contributed to the empirical discrepancy. – *Bernd Weber et al.*, Neural evidence for Reference-dependence in real-market-transactions, *NeuroImage* 35 (2007), 441–447 interpret results from a neurophysiological experiment as indicating loss aversion for goods but absence of loss aversion for money in routine transactions, see *infra* footnote 65.

42 *Novemsky and Kahneman*, The boundaries of loss aversion, 127.

43 See *Colin Camerer*, Three cheers-psychological, theoretical, empirical-for loss aversion, *Journal of Marketing Research* XLII (2005), 129–133; *Dan Ariely et al.*, When do losses loom larger than gains, *Journal of Marketing Research* XLII (2005), 134–138.

44 *Nathan Novemsky and Daniel Kahneman*, How do intentions affect loss aversion?, *Journal of Marketing Research* XLII (2005), 139–140 (140).

To summarize, if Novemsky and Kahneman's propositions are valid, the underlying intention or motive for the possession is crucial to the emergence of the endowment effect. Returning to our claim in the end of part 2.2.1 above, this finding is consistent with Pierce et al.'s suggestions that psychological ownership is rooted in a set of motives.

When it comes to the legal aspects of the relationship between the possessor and the object, Jones and Brosnan are right when they claim that “if the endowment effect is real, at least under some real-world conditions, it arguably should matter a great deal to law.”⁴⁶ With further references, they give an account of different legal areas that have claimed to be significantly affected by the discovery of the endowment effect.⁴⁷ Several of these are within the commercial sphere (e.g. implications for corporate law and for the regulation of broadcast rights and pollution permits). If the findings in Novemsky and Kahneman are valid however, many of the predicted endowment effects will be weakened as far as purely commercial transactions are concerned because both parties define the goods in question as objects of exchange.

Fundamentally, their findings provide deeper insight into the mechanisms by which people act protectively towards their possessions, and into how such behavior may vary due to the character of different subject-object relations and the various contexts in which these relations appear. As indicated above, such insight is clearly relevant when it comes to modelling a legal property concept that provides legitimacy towards both the third party and the owner. The elaboration of such a model will be discussed in chapter 3 and 4 below.

2.2.3 Which are the relevant mechanisms creating the endowment effect: Are they “formal” or “natural”?

One question that is raised from the endowment effect experiments is this: what are the relevant mechanisms that create the effect? From a legal point of view, it is especially interesting to find out whether it is the *factual* or the *legal* relationship between a person and an object that creates the effect (or which of these relations are stronger in this respect). If the *factual* relationship is significant for the effect, it may be an argument in favor of Pierce et al.'s proposal that the concept of psychological ownership is distinctively different from *legal* ownership. The notion of ownership by the possessor does not necessarily depend on

45 *Novemsky and Kahneman*, The boundaries of loss aversion, 123–124.

46 *Owen D. Jones and Sarah F. Brosnan*, Law, biology, and property: a new theory of the endowment effect, *William and Mary Law Review* 49 (2008), 1935–1990 (1945).

47 *Ibid.*, 1945–1947.

the design of the actual legal system. If the legal relationship is significant for the effect, it could conversely be argued that the notion of ownership by the possessor is merely a function of the existing legal system at a given time and place.

The question described above is most recently examined in a study by Jochen Reb and Terry Connolly.⁴⁸ They conducted two experiments. In experiment 1, the participants were asked to give monetary value to chocolate bars. In experiment 2, they were asked to give monetary value to coffee mugs. Both experiments divided the participants into four groups. The participants in group 1 received the item before they were asked to attach value to it and were also told they legally owned it (i.e. they both possessed and legally owned it at the time of valuation). Participants in group 2 possessed the item, but were not told that they owned it (i.e. they possessed but did not own it at the time of valuation). Participants in group 3 were merely shown the item and were told that they legally owned it (i.e. they legally owned but did not possess it at the time of valuation). Participants in group 4 were merely shown the item and were not told that they owned it (i.e. they neither possessed nor owned it at the time of valuation).⁴⁹

As stated in the study, the typical endowment effect experiment compares an individual who both legally owns and possesses the object (i.e. group 1) with an individual who neither owns nor possesses it (i.e. group 4). In this study, the endowment effect was, in this sense, replicated in both experiments.⁵⁰

48 Jochen Reb and Terry Connolly, *Possession, feelings of ownership and the endowment effect*, *Judgment and Decision Making* 2 (2007), 107–114.

49 Another part of the study also measured the feelings of ownership in the different groups in relation to both of the items in question.

50 As in the experiments referred to in section 2.2.2 above, in both experiments the participants had to choose their monetary valuations from a list of different amounts of money, see *Reb and Connolly, Possession, feelings of ownership and the endowment effect*, 108 for the rationale for this methodology. The ratio between the average valuation of the chocolate bars between group 1 (median monetary validation \$1.79) and group 4 (median monetary validation \$1.29) was of 1.39, *ibid.*, 109. The ratio between the average valuation of the coffee mugs between group 1 (median monetary validation \$3.82) and group 4 (median monetary validation \$2.70) was of 1.41, *ibid.*, 111. These results are typical in magnitude, according to the authors, *ibid.*, 109. In experiment 2, the other commonly used method for monetary valuations were used as well (referred to as “Willingness to Pay (WTP) and Willingness to Accept (WTA)”, see *ibid.*, 108). Using this method, the ratio between the average valuation of the coffee mugs between group 1 (median monetary validation \$4.08) and group 4 (median monetary validation \$2.76) was of 1.48, *ibid.*, 111. – The experiments took place in Singapore, and the money amounts were given in local currency, Singapore dollars, worth at the time about .60 \$US, *ibid.*, 108.

What is of interest here are the findings of the relative role of legal ownership and factual possession. Was the endowment effect due to legal ownership, possession, or both? The study shows a significant main effect only for factual possession. Participants gave both kinds of items a higher monetary value when they possessed it than when they did not possess it, while the effect of ownership was not significant with respect to monetary valuation.⁵¹ The study concludes as follows (the citation uses the expression “factual ownership” as synonymous with “legal ownership”):

“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.”⁵²

As Reb and Connolly point out, more research is needed before we can fully understand the mechanisms that create the endowment effect. Nevertheless, their findings support the view that our notion of property basically does not depend on the formal legal system. Under certain circumstances, it occurs independently of the law.

Again, to return to our claim in the end of part 2.2.1 above, the finding is consistent with Pierce et al.’s suggestion that the psychological concept of ownership is distinctively different from legal ownership. It supports their claim that psychological ownership is a matter of actual and individual feelings, representing the factual relationship between the possessor and the object.

When it comes to the legal aspects of the relationship between the possessor and the object, the results of Reb and Connolly’s experiments suggest that, despite its notoriously dynamic appearance in the legal sphere, we may have to acknowledge certain immovable features of the concept of property. As stated, the elaboration of the significance of this point is to come in chapters 3 and 4.

51 *Ibid.*, 109 and 111.

52 *Ibid.*, 112.

2.3 The field of natural science: are there useful insights yet to be found?

2.3.1 Introduction and basic remarks

Philosophers have a long tradition of discussing property as a moral problem. The renewed evolutionary view of morality may therefore be of interest to property theory.⁵³ Two prominent representatives have recently expressed their hypotheses in a book. Marc D. Hauser says that the central idea of his “book is simple: we evolved a moral instinct.”⁵⁴ Frans de Waal expresses: “That human morality elaborates upon pre-existing tendencies is, of course, the central theme of this volume.”⁵⁵

There is not any specific guidance that emerges from these works when it comes to the discussion of property as a moral problem. The closest we get is perhaps Hauser’s answer to his question “[d]o animals have a concept of property and, if so, what is it?” There is an unwritten rule that states, he argues, that space occupied by other individuals constitute their uncontested property.⁵⁶

Drawing on the same insights, Herbert Gintis has most recently claimed that the natural evolution of private property is a plausible argument for the existence and importance of the endowment effect and loss aversion. He writes: “Humans share with many other species a predisposition to recognize private property. This takes the form of *loss aversion*: an incumbent is prepared to commit more vital resources to defending his property, *ceteris paribus*, than an intruder is willing to commit to taking the property.”⁵⁷

Such a hypothesis is, to a certain extent, consistent with Pierce et al.’s concept of physiological ownership. After examining the scholarly works on the genesis of possessive tendencies and the psychology of property, they determined that two separate schools of thought concerning the origins of psychological ownership existed. The first group of scholars takes a biological perspective and fixes the origin in the individual’s innate genetic structure. The second group takes a social (cultural) constructionist view and focuses on the socialization practices and rituals carried out in different societies.⁵⁸ Pierce et al.’s conclusion is in between: “Concurring with Dittmar (1992), we suggest that both biology and social experiences play a role in shaping people’s relations to their possessions.”⁵⁹

2.3.2 An animal experiment directly aimed at the endowment effect

To my knowledge, the most recent study from the field of evolutionary biology relevant to the legal concept of property is published by Sarah F. Brosnan et al., examining the endowment effect in chimpanzees.⁶⁰ An elaborated version is presented for legal audiences by Owen D. Jones and Sarah F. Brosnan.⁶¹

Jones and Brosnan show that chimpanzees do exhibit an endowment effect by favoring food they just received more than food that could be acquired through exchange.⁶² Conversely, when the researchers did an analogous experiment with toys as the exchange object, they got different results.

53 For a short and popular overview of the field, see for example *Steven Pinker*, *The moral instinct. Evolution has endowed us with ethical impulses. Do we know what to do with them?*, *The New York Times Magazine* (January 13, 2008).

54 *Marc D. Hauser*, *Moral minds. How nature designed our universal sense of right and wrong* (New York, 2006), xvii.

55 *Frans de Waal*, *Primates and philosophers. How morality evolved* (Princeton and Oxford, 2006), 181.

56 “They do have unwritten rules that function in the regulation of dominance relationships, sexual behavior, and the defense of space. These unwritten rules set up expectations about patterns of interaction, about likely outcomes, regularities, and bankable resources ... For most territorial species, there is a precedence effect. If an individual without a territory flies or walks into a space and the owner is present, the intruder will back off almost immediately, without challenge. There is an unwritten rule that states: Space occupied by another individual constitutes their uncontested property. Challenges do arise, and often they lead to escalated chases or attacks. Territory owners usually have the home-court advantage when things get nasty, though, sometimes, repeated attempts to garner a piece of land leads the owner to relent just to get the intruder off its back”, *Hauser*, *Moral Minds*, 370.

57 *Herbert Gintis*, *The evolution of private property*, *Journal of Economic Behavior & Organization* 64 (2007), 1–16 (15). – As stated in the article (footnote 1), Owen D. Jones and Jeffrey E. Stake have earlier developed analyses of the evolution of private property stressing similar themes.

58 *Pierce et al.*, *The state of psychological ownership*, 87.

59 *Ibid.*, 88. – If we follow the reference to Helga Dittmar, she questions, after examination of the biological accounts of property, any “glib statements that acquisitiveness is natural”, but adds that it “is by no means intended to dismiss altogether the possible role of residual biological and instinctual factors in people’s acquisition and use of property, particularly such items as shelter and clothing”, *Helga Dittmar*, *The social psychology of material possessions. To have is to be* (Hertfordshire and New York, 1992), 39 (which includes further references).

60 *Brosnan et al.*, *Endowment effects in chimpanzees*, *Current Biology* 17 (2007), 1704–1707. Studies of some similarity can for instance be found in M. Keith Chen, Venkat Lakshminarayanan and Laurie R. Santos, *How Basic Are Behavioral Biases? Evidence from Capuchin Monkey Trading Behavior*, *Journal of Political Economy* 114 (2006), 517–537.

61 *Owen D. Jones and Sarah F. Brosnan*, *Law, biology, and property: A new theory of the endowment effect*, *William and Mary Law Review* 49 (2008), 1935–1990.

62 Subjects were 33 chimpanzees housed at the University of Texas. The food items were frozen fruit-juice sticks and PVC pipes filled with peanut butter, *ibid.*, 1966. As a group, 58 % of the chimpanzees initially preferred peanut butter to juice. When they got the peanut butter in possession, however, 79 % of them preferred to keep it rather than exchange for juice. Likewise, 42 % of them initially preferred juice, but after the chimpanzees got the juice in possession, 58 % of them chose to keep it rather than exchange for peanut butter, *ibid.*, 1969.

In contrast to the results for food, the chimpanzees showed a preference to the interaction of exchange, rather than an endowment effect.⁶³ Jones and Brosnan suggest that the endowment effect is stronger for food than for less evolutionarily salient objects, perhaps because of historically greater risks associated with keeping a valuable item versus attempting to exchange it for another.

The study seems relevant for the question addressed in 2.2.3 above. Does the endowment effect emerge through “natural” or “formal” mechanisms? In Jones and Brosnan’s study, it is possible to eliminate formal legal entitlement as a factor. Consequently, to the extent that the endowment effect is proven to exist in chimpanzees and to the extent it is valid to analogize between human behavior and chimpanzee behavior, the study suggests that the endowment effect in humans is primarily driven by a subjective sense of endowment rather than legal entitlement. In other words, the study supports the view that our notion of property not only depends on a given legal system, but that the notion of property occurs independently of the law.

Is there any relevant relationship between the study and the other question addressed above (cf. 2.2.2)? Do intentions affect the endowment effect? The ability to create intentions is presumably largely a consequence of the exclusive human ability to reason in the abstract. If this is valid, humans are able to have intentions but chimpanzees are not.⁶⁴ From this starting point, interesting empirical inquiries occur in the intersection between the presumably evolved *emotional* endowment effect and intentions presumably emerged from abstract *reasoning*. Firstly, we have to investigate scientifically whether the human brain actually operates in such a dichotomous manner. Secondly, to the extent it does operate like this, we have to further investigate the ways in which these two phenomena interact. Such insights would help us refine the legal concept of property based on reliable and sophisticated knowledge of the human comprehension of ownership and how protectiveness towards possessions varies due to context and the state of mind. With new advances in the field of neuro-

science, we are likely to be provided insight into the problems of causality and interaction. In an ideal world, the scholarly legal society should be able to initiate and co-design such research projects. At the very least, research on similar subject matters is increasingly demanded in economics, of which the legal scholarship eventually may take advantage.⁶⁵

63 The toys were common dog toys: one rubber-bone toy and one rope toy, *ibid.*, 1965. The population preference for bone over rope was 74 %. However, when endowed with the item, subjects kept the bone only 16 % of the time and the rope only 10 % of the time, *ibid.*, 1970.

64 An alternative way to interpret Brosnan et al. when it comes to the toy experiment is that the chimpanzees are capable of comprehending that toys are for the purpose of playing. When exchanging toys with the experimenter, they – so to speak – give them up “as intended”, and because of this – possibly consistent with Novemsky and Kahneman’s proposal cited 2.2.2 above – do not exhibit loss aversion.

65 According to *Nathan Novemsky and Daniel Kahneman* “current technology (i.e., fMRI) enables the examination of areas of the brain that are known to relate to emotions and perhaps to the anticipation of emotions while experimental participants are performing a variety of tasks. It will eventually be possible to test, by examining the loci of brain activity, whether emotional attachment is indeed related to loss aversion and whether it mediates the effects of intentions on loss aversion”, How do intentions affect loss aversion, *Journal of Marketing Research* XLII (2005), 139–140 (139). *Terrence R. Chorvat, Kevin McCabe and Vernon L. Smith* articulate their view like this: “Neuroeconomics can help us to understand how individuals actually view property and how that the perception of property affects behavior. The heterogeneity already observed indicates that people not only place different values on the same piece of property (as neoclassical analysis would predict) or that the value may change depending upon circumstances (as behavioral economics assumes), but also that the way in which the notion of ownership is processed by different people may be quite different. Some may view it as a resource to be shared, and others may view it entirely in a non-cooperative way ... In addition, it appears that either view is to some degree context dependent ... Understanding this may help to explain the anomalies analyzed under behavioral economics and help to provide a solution to one of the greatest problems of behavioral economics as viewed by its critics: its need for a central theory from which one can deduce the particular behaviors observed”, *Law and neuroeconomics*, George Mason Law and Economics Research Paper No. 04–07 (February 2004), 32. Available at SSRN: <http://ssrn.com/abstract=501063> (last access: May 19, 2008). – Some research is already conducted on the neural antecedents of loss aversion and the endowment effect. In a recent event-related functional magnetic resonance imaging (fMRI) study, the findings are reported to “provide evidence consistent with reference-dependent theories (e.g., prospect theory) rather than reference-independent theories (e.g., rational choice) and specifically support a loss aversion rather than an enhanced attraction account of the endowment effect”. See *Brian Knutson et al.*, *Neural Antecedents of the Endowment Effect*, *Neuron* 58 (2008), 814–822, which gives references to previous studies. In a study where the results in certain respects differ from the findings in *Brian Knutson et al.*, the results from a fMRI experiment suggest loss aversion for goods but absence of loss aversion for money in routine transactions, see *Bernd Weber et al.*, *Neural evidence for Reference-dependence in real-market-transactions*, *NeuroImage* 35 (2007), 441–447. This study refers expressively to Kahneman and Novemsky’s suggestion that there is no loss aversion for money given up in a purchase, see 2.2.2 above.

3. Legal theoretical implications of the empirical findings and analyses – property as a gradual legal concept

3.1 Introduction and basic remarks on the American and Norwegian property tradition

Following the tradition of Scandinavian Legal Realism, of which the Danish legal scholar Alf Ross was one of the most prominent thinkers, the legal concept of property is regarded as somewhat meaningless.⁶⁶ Ross claimed words like “ownership” to be “without meaning, without any semantic reference, and serve a purpose only as a technique of presentation.”⁶⁷ Ross seemed to deny words like “ownership” any other function⁶⁸ and did, in fact, criticize its potential normative power as irrational.⁶⁹ Such a fundamental skepticism is still the prevailing approach to the concept of property in Norwegian legal literature.

The Norwegian skepticism has substantial similarities to the American “bundle-of-rights” metaphor, and the skeptical tradition still has dominion over American legal literature when it comes to the legal concept of property.⁷⁰ Nevertheless, the “bundle-of-rights” approach seems to be under pressure. Thomas W. Merrill and Henry E. Smith summarize the situation in the following way:

“Scholars who seek to identify the meaning of property tend to fall into two camps. On the one hand, there are the essen-

tialists, who seek to uncover the single true definition of property as a legal concept ... On the other hand, there are the skeptics, who believe that it is fruitless to try to come up with a single canonical conception of what property means in a legal system. For the skeptics, “property” is just a word that means nothing until we spell out – using different words – exactly what we are talking about in any given context ... Although the skeptical tradition has the widest following among American law professors today, essentialism is making something of a comeback.”⁷¹

Both David Hume and Immanuel Kant are opposed to the “bundle of rights” theory espoused in both the American and Norwegian traditions; they instead emphasize normative power as the underlying concept of property. The investigations conducted in chapter 2 suggest that such proposals make sense. We have learned that the notion of ownership is not a slave to the formal legal system. The disintegration and fragmentation of the legal concept of property does not lead to a corresponding equivalent disintegration and fragmentation of ownership by the possessor. Although it is, of course, *influenced* by the legal conceptualization, the latter lives its own life.

When we use expressions like “notion of ownership by the possessor,” we should look to another philosophical conceptual approach: Ludwig Wittgenstein’s influential idea of family resemblance. Wittgenstein discussed examples of expressions which he argued would not admit a full and complete definition of the phenomenon in question, but nevertheless make conceptual sense. The lack of precision does not make such expressions meaningless and useless. Concepts with blurred edges can, on the contrary, be exactly what we need.⁷²

I think this is exactly the case when we attempt to conceptualize a model for the legal concept of property. Such a model has to capture a set of *related* human states of mind

66 For one recent account for the Scandinavian Legal Realism, see *Jes Bjarup*, Scepticism and Scandinavian legal realists, in: Timothy Endicott, Joshua Getzler and Edwin Peel, *Properties of law. Essays in honour of Jim Harris* (Oxford and New York, 2006), 52–68.

67 *Alf Ross*, Tû–Tû, *Harvard Law Review* 70 (1957), 812–825 (821–822).

68 Also *Tony Honoré* does interpret Alf Ross in this way: “One of the functions of expressions such as ‘he is owner’ is to draw similar legal conclusions from varying states of fact”, Honoré claims, pointing out that “A. Ross ‘Tû–Tû’ ... overlooks this”, *Ownership*, 185 (cf. footnote 1 on the same page), in: *Tony Honoré, Making law bind. Essays legal and philosophical* (Oxford 1987), 161–192.

69 *Alf Ross*, Tû–Tû, e.g. 818 and 825. *Jes Bjarup* summarize the tradition of Scandinavian Legal Realism like this: “The Scandinavian realists are committed to the sceptical position that there can be no knowledge of the law as a normative fact in terms of reasons for belief and action, but this position is held in a dogmatic way as the only possible scientific stance. They are also committed to the view that the language of the law is a magical language, devoid of any normative or cognitive content, but that there is no reason to abandon the use of legal magic if it is informed by science as opposed to morality. This makes the scientific approach all-important and they acknowledge that there can be knowledge about the law as an empirical fact. However, they fail to engage in any sociological or psychological inquiries into the causal impact of legal rules upon minds of people and their behaviour”, *Scepticism and Scandinavian legal realists*, 68.

70 In the article *What happened to property in law and economics?*, *Yale Law Journal* 111 (2001) 357–398, *Thomas W. Merrill and Henry E. Smith* summarize the development of the “bundle-of-rights” concept in American legal literature.

71 *Thomas W. Merrill and Henry E. Smith*, *Property: principles and policies* (New York, 2007), 15–16.

72 Discussing the concept ‘game’, he rhetorically claims: “One might say that the concept ‘game’ is a concept with blurred edges.–But is a blurred concept a concept at all?–Is an indistinct photograph a picture of a person at all? Is it even always an advantage to replace an indistinct picture by a sharp one? Isn’t the indistinct one often exactly what we need?” (“Man kann sagen, der Begriff ‘Spiel’ ist ein Begriff mit verschwommenen Rändern.–Aber ist ein verschwommener Begriff überhaupt ein Begriff?–Ist eine unscharfe Photographie überhaupt ein Bild eines Menschen? Ja, kann man ein unscharfes Bild immer mit Vorteil durch ein scharfes ersetzen? Ist das unscharfe nicht oft gerade das, was wir brauchen?”), *Ludwig Wittgenstein, Philosophische Untersuchungen / Philosophical investigations* (translated by G. E. M. Anscombe, third edition, reprinted, Oxford, 1968), 34e (34).

that *misses sharp boundaries*. The concept of family resemblance offers a unifying conceptual model. Firstly, it implies the necessary dynamics and, secondly, it enables us to acknowledge *the relationship(s)* between the different aspects of the concept.⁷³ To be sure, the legal concept of property consists of several parts derived from different perspectives, e.g. notions of ownership by the possessor and notions of duty by third parties as well as utilitarian perspectives and concerns about distributive justice. This does not mean that the different parts and perspectives are not related to each other. In other words, the disintegration and fragmentation that the “bundle-of-rights” concept offers us tends to lead our attention away from how the parts are related to each other in many different ways.⁷⁴ Here, for instance, we are particularly interested in the relationship between the possessor-object dimension and the third parties-object dimension within the concept of property.

This leads us back to Tony Honoré, who was influenced by Wittgenstein when he wrote his article “Ownership.” When he expressed his legal conception of property, Honoré did not intend to give a single, full and complete definition. The boundaries will vary with the legal community in question. Yet in opposition to Wittgenstein, Honoré seemed willing to identify the most striking feature of the

family resemblance: “the right to possess.” He claimed this as “the foundation on which the whole superstructure of ownership rests.”⁷⁵

3.2 Property as a gradual legal concept

A combination of the empirical knowledge originating from chapter 2 and the conceptual analyses above makes it possible to propose a gradual theoretical model for shaping and managing the legal concept of property (at least for our purpose here: the relationship between the possessor-object dimension and the third parties-object dimension). In the middle we place a core which – because of some fundamental human tendencies of behavior – is hard to penetrate from the legislative authorities’ and the courts’ point of view. The core represents a concept of family resemblance on its own, with different related features and blurred edges. This concept of property then stretches out in different directions until we do not recognize family resemblance any more (illustrated in fig. 4 below). Where the legislative authorities and the courts choose to place the outer concept borders within this expanded area will mainly be a question of policy (including e.g. utilitarian considerations and concerns about distributive justice) and legal tradition and coherence, in order to best suit the legal needs of the community and/or of the resource in question.⁷⁶

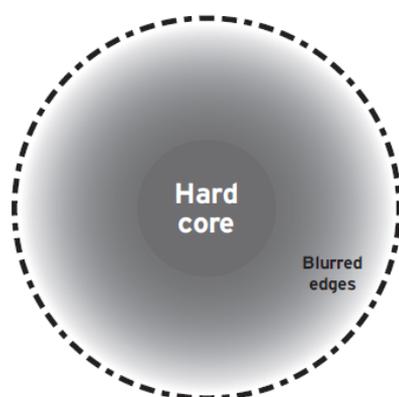
The task here has mainly been to investigate what can be found in the present empirical knowledge to help us comprehend and conceptualize the core of the concept. In this article, we will not dig further into how to best handle its edges in legal terms. Because of its huge normative strength, the formal perspective of exclusion is, in contrast to the empirical starting point of the possessor-object dimension, the best applicable starting point for the overall design of the legal concept of property.

73 Discussing the concept ‘number’, Wittgenstein claims: “And for instance the kinds of number form a family in the same way. Why do we call something a “number”? Well, perhaps because it has a direct-relationship with several things that have hitherto been called number; and this can be said to give it an indirect relationship to other things we call the same name. And we extend our concept of number as in spinning a thread we twist fibre on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres.” (“Und ebenso bilden z.B. die Zahlenarten eine Familie. Warum nennen wir etwas “Zahl”? Nun etwa, weil es eine – direkte – Verwandtschaft mit manchem hat, was man bisher Zahl genannt hat; und dadurch, kann man sagen, erhält es eine indirekte Verwandtschaft zu anderem, was wir auch so nennen. Und wir dehnen unseren Begriff der Zahl aus, wie wir beim Spinnen eines Fadens Faser an Faser drehen. Und die Stärke des Fadens liegt nicht darin, daß irgend eine Faser durch seine ganze Länge läuft, sondern darin, daß viele Fasern einander übergreifen”), *ibid.*, 32e (32).

74 Discussing the concept ‘language’, Wittgenstein claims: “–Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all, – but that they are related to one another in many different ways. And it is because of this relationship, or these relationships, that we call them all “language”. (“–Statt etwas anzugeben, was allem, was wir Sprache nennen, gemeinsam ist, sage ich, es ist diesen Erscheinungen gar nicht Eines gemeinsam, weswegen wir für alle das gleiche Wort verwenden, sondern sie sind mit einander in vielen verschiedenen Weisen verwandt. Und dieser Verwandtschaft, oder dieser Verwandtschaften wegen nennen wir sie alle “Sprachen” “), *ibid.*, 31e (31).

75 Honoré, Making law bind, 166.

76 To draw boundaries for special purposes is consistent with Wittgenstein’s concept of family resemblance: “To repeat, we can draw a boundary-for a special purpose. Does it take that to make the concept usable? Not at all! (Except for that special purpose.) No more than it took the definition: 1 pace = 75 cm. to make the measure of length ‘one pace’ usable.” (“Wie gesagt, wir können – für einen besondern Zweck – eine Grenze ziehen. Machen wir dadurch den Begriff erst brauchbar? Durchaus nicht! Es sei denn, für diesen besondern Zweck. So wenig, wie der das Längenmaß ‘1 Schritt’ brauchbar machte, der die Definition gab: 1 Schritt = 75 cm.”), Wittgenstein, Philosophische Untersuchungen / Philosophical investigations, 33e (33).

Fig. 4⁷⁷

Both the endowment effect mechanism and the mechanism of psychological ownership seem to offer fundamental descriptive foundations for the theoretical normative framework laid out above. Firstly, these mechanisms imply that the notion of ownership by the possessor does not necessarily depend on the design of the legal system. The notion of ownership is not just a function of the actual legal concept of property. Of course, it is possible to change and manipulate an individual's notion of ownership in different ways, but it is not possible to do this exclusively through rational decision-making (it is not possible to decide how a person ought to feel). Secondly, these mechanisms imply that the notion of ownership by the possessor is a dynamic phenomenon, but nevertheless it still has some identifiable features. On the one hand, the endowment effect experiments support the hypothesis that experience of factual possession of (and control over and interaction with) the object is the key catalyst of psychological ownership. On the other hand, the endowment effect experiments support the hypothesis that a certain underlying motive or intention for the factual possession of (and control over and interaction with) the object is necessary for the emergence of the notion of psychological ownership. Where such motives and intentions are present by the possessor, and the notion of psychological ownership is also protected by legal norms, the possessor-object situation will be in the core of the legal concept of property (as treated here).

Factual possession etc. without such motives or intentions can also create expectations of ownership, but this noti-

⁷⁷ The figure are stylised in the sense that the blurred edges of the hard core are not emphasized.

on will merely be an expectation of protection for an inter-subjective verifiable value. In such cases, the owner is likely to feel comfortable as long as she maintains the value. This fact gives the legislative authorities and the courts more freedom to act when the situation is outside the core but still within the concept of property. Furthermore, such notions of ownership are likely to be significantly affected by legal norms, enabling the legislative authorities and the courts to more easily reshape the outer concept borders when needed.⁷⁸ In fact, the very existence and the given borders of the actual legal property concept may, in such situations, be the main driving force behind the expectations of ownership.⁷⁹

The relationship between the descriptive mechanism of psychological ownership / endowment effect and a given normative legal concept of property can be seen in figure 5 below. Where all three of the phenomena meet, we are in the core of the legal concept of property (as treated here). The same can be said when the phenomenon of the endowment effect and the legal concept of property meet. Outside this area, this legal concept of property allows the legislative authorities and the courts more freedom to intervene with the concept, taking into account other relevant aspects as mentioned above.⁸⁰

⁷⁸ The analyses above are simplified by mainly having in mind how the state authorities should offer legal protection for isolated private parties. The internal relationship between private parties should in principle be subject to the same model for the concept of property. A particularity of such situations, though, is that collisions between the endowment effect / psychological ownership one the one hand, and expectations created by the actual legal property concept per se on the other, often occur (the case of adverse possession is one typical example on such a situation). See fig. 5 below, which suggest a lot of situations creating the endowment effect / psychological ownership by an individual who not (initially) has the legal ownership to the object in question. The figure shows a typical static example, though, not representing the dynamics in situations where it is disputed between private parties who are the rightful owner. An analysis of the relationship between different private parties within the framework of property as a gradual legal concept will not be elaborated in this article (the theme is touched, though, in the examples mentioned in chapter 4 below).

⁷⁹ See for instance *Guido Calabresi, Toward a unified theory of torts*, *Journal of Tort Law* 1 (2007), Iss. 3, Article 1, especially 7–9. Available at: <http://www.bepress.com/jtl/vol1/iss3/art1> (last access: May 19, 2008). Note that this effect of a legal property concept also may occur in situations where there exist intentions and motives that create the endowment effect / psychological ownership. Nevertheless, our investigations of these phenomenon has led us to conclude that it make sense to conceptually try to exclude the part of the ownership notion that derive from the legal system per se. This is corresponding with one of the core questions addressed in Calabresi's article: Investigation of the possibility of separating incentives and recovery, in the shape of an investigation of "pre-existing notions of corrective justice" related to the idea of property, *ibid.*, 8.

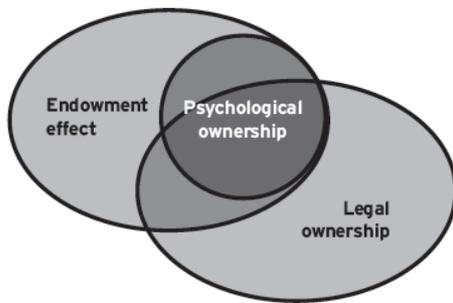


Fig. 5

We have now done analyses of the legal concept of property on a rather high level of abstraction. Next we will look at what benefits these theoretical studies may have when applied to specific legal problems.

4. Some examples of the practical legal implications of modelling property as a gradual legal concept

4.1 Introduction

The legal concept of property proposed above calls for the renewed analyses of a set of legal problems. It represents a guideline for future research on the various ramifications of property law. Below are a few examples of practical legal problems that could potentially be affected.⁸⁰

4.2 Expropriation

Under the U.S. Constitution, one of the significant limitations on eminent domain is that the condemning authority must pay “just compensation.” This expression is interpreted to mean “fair market value,” and provides no recovery for the subjective value that owners attach to their property. One way to deal with this problem of undercom-

pensation is to heighten the standard of review under the concept of “public use,” another significant limitation on eminent domain.⁸² Margaret Jane Radin derives such a solution from her concept of personhood property.⁸³ The legal concept of property laid out above supports a view that the strength of the “public use” limitation should be relative to how near or far from the core of the concept an actual expropriation is.⁸⁴ This also means that the standard of review under the “public use” limitation should be significantly lowered when the situation in question is near the outer boundaries of the legal concept of property.⁸⁵

Another way to deal with the problem may be to pay the owner a bonus above market value when the expropriation situation is within the core of the legal concept of property. The U.S. legal system is not totally unfamiliar with legislation that provides compensation to be set at 150 % of fair market value.⁸⁶ The endowment effect experiments may substantiate such a level of “overcompensation” as reason-

80 The statements in this paragraph and the connected figure are simplified and stylised in the sense that the gradual nature of all of the three concepts are not emphasized (cf. figure 3 and 4 above). See supra footnote 77.

81 The proposed gradual model may also be of interest when commodification theory is discussed. For instance, the relationship between the subject-object perspective and the third party-object perspective is mirrored in *Carol M. Rose, Afterword: Whither Commodification?*, in: Martha M. Ertman and Joan C. Williams (ed.), *Rethinking Commodification: Cases and Readings in Law and Culture* (New York and London, 2005), 402–427, see 413–417 where she reflects on the relationship between the commodification theory and the in rem property theory. For a work relevant to the question on how intentions affect our valuation of things, see *Igor Kopytoff, The cultural biography of things: commoditization as process*, in Arjun Appadurai (ed.), *The social life of things: Commodities in cultural perspective* (Cambridge and New York, 1986), 64–91.

82 For an overview over the field of eminent domain in American law, see for instance *Thomas W. Merrill and Henry E. Smith, Property: principles and policies* (New York, 2007), 1220–1258.

83 *Margaret Jane Radin, Property and personhood*, in: Margaret Jane Radin, *Reinterpreting property* (Chicago and London, 1993), 35–71 (see e.g. 66 and 71).

84 In the aftermath of *Kelo v. New London*, 545 U.S. 469 (2005), several states in the U.S. have like this enacted new legislation that restrict government use of eminent domain power. For instance, in June 2008 Californian voters approved an amendment to the California Constitution that, with certain exceptions, prohibit the state and local governments from acquiring by eminent domain an owner-occupied residence for the purpose of conveying it to a private person.

85 A problem which dovetails the takings discussion is the question of restoration of expropriated property in totalitarian countries. An analysis of recent attempts to undo expropriations conducted by former socialist countries in Europe is brought forward in *Christopher Kutz, Justice in Reparations: The Cost of Memory and the Value of Talk, Philosophy & Public Affairs* 32 (2004), 277–312. In his conclusion, Kutz is overwhelmingly negative to reparation, claiming that despite the harms flowing from expropriation, reparation in cash by new regimes will usually fail to restore justice, and will instead cause yet further injustice. Still, he makes a limited room for claims to return of the land itself, “particularly land invested with sentiment, tradition and collective meaning; land, in other words, that does not have a monetary equivalence in the first place” (306). Thus, he sets aside the case for commercial properties, but acknowledges that the more compelling case is the family home or family farms. Restoring homesteads, he suggests, “has an intimate and pervasive connection to the fundamental aim of the state, enabling individuals to live good lives, which distinguishes it from the case of commercial enterprises” (307). This is concurrent with the proposed gradual theoretical model for the legal property concept, where the commercial field falls outside the core despite its ability to make a strong case for a secure place within the concept in respect to ordinary (opposite revolutionary) state conditions, cf. 4.4 below with regard to property as a human right.

86 See *Merrill and Smith, Property: principles and policies*, 1255, referring to some of the Mill Acts mentioned in *Kelo v. New London*, 545 U.S. 469 (2005). Merrill and Smith discuss the problem of “under-/overcompensation”, including further references, *ibid.* 1254–1256.

nable in certain cases.⁸⁷ Taking into account the limitation of the endowment effect according to intentions, one way to refine such legislation would be to enable the court (or other relevant authorities) to use discretion to set the compensation between 100% and 150% of market value.⁸⁸

When it comes to compensation for the government seizure of property under eminent domain, the constitutional requirements under the Norwegian Constitution are analogous to the Fifth Amendment in the U.S. Constitution. Indeed, a “public use” limitation does not exist in the Norwegian Constitution, but the general legislation on expropriation requires that the total effect of each seizure undoubtedly must create more benefits than harm. The comments above on the relativity of both the limitation of conducting takings and the compensation issue are as relevant for the Norwegian legal system as for the U.S. legal system. In particular, they are relevant to a recent amendment to the Norwegian Land Consolidation Act. In practice, this amendment allows the zoning authorities to enable private parties to carry out the eminent domain power in certain cases. For instance, this may be the case when an entrepreneur wants to build new homes in residential areas where relatively big gardens seem suitable to be parcelled out as lots for additional homes.⁸⁹ When the amendment was discussed in the Norwegian Parliament, the majority of the representatives who participated in the debate claimed that the original home owners would be comfortable with the new legislation, because the entrepreneurs have to pay “fair market value” for the parcels. On the contrary, as homes presumably will be in the core of the legal concept of property, for the original home owners, “fair market value” will, in practice, mean undercompensation.

4.3 “Debiasing through law”

Christine Jolls and Cass R. Sunstein discuss some aspects of the endowment effect and intellectual property in their recent article *Debiasing through Law*.⁹⁰ Their discussion relates to the problem of property rules versus liability

rules. When legal protection is awarded to creators of intellectual property, does the choice between property rules and liability rules affect the emergence of the endowment effect? Jolls and Sunstein emphasize the differences between the American and European intellectual property systems. As an example, they focus on an entitlement holder who wishes to make use of related intellectual property owned by another entity. Presupposing that the entitlement holder generally faces a property rule regime in the United States, whereas in many European countries the entitlement holder faces a liability rule regime, their opinion is that the legal system affects the emergence of the endowment effect: “Our basic conclusion is that the European systems, in the domains in which they adopt liability rule protection, may achieve a form of debiasing through substantive law given the assumed desirability of lowering willingness to accept to the level of willingness to pay.”⁹¹

Jolls and Sunstein’s conclusion seems to rest on the assumption that the legal system itself is the main factor behind the endowment effect. As argued above, both a recent endowment effect experiment and the concept of psychological ownership contradict such a view.⁹² The legal concept of property laid out above suggests another approach to the problem. Intellectual property created with a merely commercial intention does not breed the endowment effect and is suitable for a liability rule regime based on fair market value. On the other hand, intellectual property created with other intentions, especially when the creator has invested “the self into the target” (cf. the concept of psychological ownership), is presumably located within the core of the property concept. A property rule regime or a liability rule regime with a system of bonus above market value would be more suitable here.

4.4 Property as a human right

The concept of property is regarded as a human right within the European Convention on Human Rights. It has been subject to comprehensive interpretation in the European Court of Human Rights. The Court has taken a broad approach to the property concept, regarding a wide range of legitimate expectations to fall within the concept. For in-

87 See 2.2.1 and 2.2.2 above, referring to recent experiments where the owner’s selling-price / third party’s choice-price ratio of respectively 1.39 and 1.85 was referred to as typical in magnitude / close to the values observed in previous experiments. One recent eminent domain analyses with a particular emphasis on the possessor-object dimension is to be found in *Nicole Stelle Garnett, The Neglected Political Economy of Eminent Domain*, Michigan Law Review 105 (2006), 101–150 (for references to the discussion of the endowment effect in this respect, see 107–108).

88 Such a grant of discretion seems to be a minor one compared to for instance the discretionary power of the U.S. juries to award punitive damages, based on notions of a moral condemnation.

89 Amendment of May 12, 2006, No. 15 (in force from January 1, 2007). Formally the entrepreneurs have to proceed their case for a special court (the Land Consolidation Court).

90 *Christine Jolls and Cass R. Sunstein, Debiasing through law*, Journal of Legal Studies 35 (2006), 199–241. See also their reference to *Cass R. Sunstein and Richard H. Thaler, Libertarian paternalism is not an oxymoron*, University of Chicago Law Review 70 (2003), 1159–1202.

91 *Jolls and Sunstein, Debiasing through law*, 220–221.

92 That said, see supra footnote 79 that acknowledges the legal system as one of the contributing factors to the overall idea an owner has of the value of the object in question (whether or not there exist intentions and motives that create additional value via the endowment effect / psychological ownership).

stance, in the case of *Anheuser-Busch Inc. v. Portugal*, a commercial trademark was regarded as protected as a human right.⁹³ Is such an approach appropriate?

It seems easy to answer no to the question. A deeper analysis of the theoretical framework underlying the interpretation of the Convention can help clarify which parts of a broad property concept are appropriate to be treated as human rights. The legal concept of property laid out above is one suggestion for such a framework. Intuitively, human rights are about each individual's integrity and dignity. To be sure, there are plenty of good reasons to protect purely commercial positions under a country's constitution, but on reflection, hardly due to human rights. Therefore, it makes sense to draw the outer border of the legal concept of property in a way that offers protection to a whole set of legitimate expectations, and still reserve human rights protection for those phenomena which fall within the core of the concept of property. The argument is that only the situations that create and maintain a state of psychological ownership, or at least an endowment effect, is what is directly related to the individual's integrity and dignity.

Using the theoretical core model for shaping and managing the legal property concept, the core section A represents the human rights situations in the illustration below. The middle section B represents the situations where there are other good reasons to secure the property in question under a country's constitution (e.g. to indicate that investments within this section are secured against governmental interventions, promoting internal and foreign investments, etc.). The outer section C represents the situations where there are reasons to legally secure the property in question from invention from other private parties without giving up the government's option to intervene without paying compensation (e.g. when allocating to private parties certain physical goods; intellectual achievements; tradable permits – to pollute, for instance; etc.).

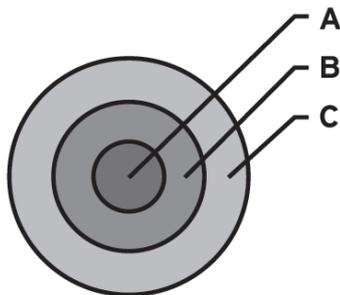


Fig. 6

5. Closing remarks

The law represents a particular set of norms for social behavior. One aim of the law is to achieve beneficial consequences for the society as a whole. In this respect, the advantage of using empirical based knowledge in legal research is obvious. This includes knowledge of human behavior and the individual human mind. In order to know how legal norms will function in society as a whole, we need to know how the same norms will operate on the individual level. Additionally, the law has another aim: to guarantee human integrity by protecting individuals from unreasonableness and arbitrariness. From this perspective, knowledge on human behavior and the human mind needs to be included when we conduct legal research.

Throughout the last decades, empirically oriented legal studies have culled scientifically based knowledge from other disciplines. This article offers a contribution from the property law perspective to this approach. It takes a fresh look at the relationship between the possessor and the object in question. In this respect, it uses current empirical knowledge from both social and life sciences to prepare and support a model for shaping and managing the legal concept of property. Hopefully, it may inspire more empirically based research in this field of the law. To bring the theory of property further, it is not enough just to re-think and rephrase. New developments that can tell us more about human behavior and the human mind must not go unheeded, even if it comes from scientific disciplines that legal scholarship has paid minor attention to in the past.

93 Application no. 73049/01, GC-Judgment of 11 January, 2007.