# AUTONOMY, REASON AND BIAS IN CONTRACT LAW

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**Abstract**

*The cognitive sciences provide us in high frequency with insights in the functioning of the human mind. One of these insights is that human decision making is often not rational. The law has tools to deal with lapses of rationality, but it works on the basis of an image of mankind according to which humans are, and typically act, rationally. This raises the question whether law should be more adaptive to the stream of new insights produced by the cognitive sciences. The present article aims to answer this general question for an important field of law: the law of contract. It shows that there are good reasons to assume that the conclusion of a contract is often not a rational event.*

*The law can follow two strategies in dealing with the insight that contracts, and – extrapolating a bit – juridical acts in general – are often not created rationally. One strategy is to use the tools which law already has, for dealing with irrationality for newly discovered kinds of cases such as the anchoring bias. Another strategy is to redesign substantial parts of the law to take into consideration that subjective preferences often do not reflect objective interests. Which strategy is the best depends on the frequency of situations in which subjective preferences do not reflect objective interests.*

**Keywords**: anchoring bias, autonomy, contract, interest, preference, rationality, reliance

## 1. Introduction

This article is part of a larger project that aims to take stock of recent developments in the cognitive sciences and their possible implications for law. The focus of the present contribution is on the implications for contract law if it proves to be the case that human decision making in general, and in contracting in particular, is less rational than is often assumed. A possible consequence of this finding might be that contract law should be completely rewritten, or perhaps even abolished.

The autonomy of legal subjects is the cornerstone of private law in general, and contract law in particular. Private law deals with the mutual relations between private legal subjects. Originally[1] the role of state organs was confined to the enforcement of the legal positions and relations that legal subjects created themselves. For example, legal subjects determine who owns what, and the role of the state is confined to protecting those property rights. The much-heralded freedom of contract provides another illustration. The law of contract makes it possible for cooperating legal subjects to modify their legal positions by undertaking contractual obligations. The freedom of contract involves both the power of legal subjects to create the obligations that they want to undertake, and the permission to do so.[2] By using this freedom, legal subjects express their autonomy[3], and this

[1] After the heyday of the night-watch state and free-market liberalism, the interference of the governance in what were originally considered to be private relations has increased. As a result, topics that used to belong to private law only, have partly become the object of public law too. Labor relations provide an illustration of this shift from private to public.

[2] Hage 2010.

empowerment of legal subjects' autonomy goes hand in hand with the assumption that this autonomy is exercised rationally.[4] As we will see in section 2.4, support for this link between autonomy and rationality in actual contract law can be found in the situations where the law limits the freedom of contract.

Psychological and neurological research of the last decennia has shown that human decision making is often less rational than was traditionally assumed. Investigations (inspired) by Festinger, Ryle and Gazzaniga have made it clear that humans sometimes confabulate the motives that made them act.[5] In a number of papers, Kahnemann and Tversky have shown that human judgments are often based on heuristics that are less than fully rational, and that they suffer from biases.[6] Moreover, recent research into the brain has begun to reveal the neural mechanisms that implement decision making; specifically, it has revealed that the parts of the brain closely related to our emotions, actually play an important role in the decision-making process.[7]

The assumption that adult and mentally healthy persons have always had the capacity to act rationally lies at the heart of contract theory. However, in light of recent these psychological and neurological findings, I will try to show in this article, that a thorough reconsideration of contract theory and of the foundations of contract law is necessary. To this purpose, I will discuss the 'anchoring bias'. This bias is one of the biases that were identified by Kahnemann and Tversky. I will argue that the existence of this bias and of other biases should at least lead to an adaptation of the doctrine of contract formation. Perhaps it is even better to completely replace contract law by rules that immediately aim to promote the interests of legal subjects, rather than empowering legal subjects to promote their interests on the basis of their subjective preferences.

In section 2 I will argue that the central role of the will or intention of contract partners is best considered as a stand-in for the interests of contract parties, and also that the present law is primarily focused on interests rather than on autonomy, but that this focus has been inconsistent.

Section 3 discusses the anchoring bias, and shows that many more contracts than only those based on misrepresentation, duress, mistake, or fraud, are the result of irrationality.

Section 4 deals with the consequences the law should attach to the fact – if there is one – that the behavior of legal subjects is often irrational. In a conservative approach, irrationality raises the question whether and under which conditions contracts that were irrationally concluded should be avoidable. In a more radical approach, the question becomes whether the social practice of contracting should even be supported by law. This article is summarized and concluded in section 5.

## 2. The justification of contractual obligations

Traditionally, contract law assigns an important role to the will or intention of the contracting parties, when it comes to determining whether a contract was concluded. The point of the present section is to argue that the will or intention of the contract partners is a heuristic stand-in for the interests of

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3 Larenz and Wolf 2004, p. 393.

4 The close relationship between autonomy and rationality is a cornerstone of Kant's philosophy of practical reason. It is well worth exploring whether this element of Kant's philosophy has influenced the development of contract doctrine in continental Europe, but this possible connection will not be elaborated here.

5 Wegner 2002, pp. 171-186.

6 Kahnemann 2011.

7 Damasio 1994; Cushman, Young and Greene 2010; Sapolsky 2017.

the partners. In the end, the interests count, not the will or intention. This is already the case in contract law as it presently is, although it is not always clearly visible. We can discover the role of will, intention, and interests, if we ask what justifies the existence of contractual obligations. Why should the partners in a contract have obligations, merely because they promised each other to do something?

Let me introduce an example that will facilitate the discussion that follows. Anne offers her house for sale to Bob for €430,000. Bob makes a counter-offer of €400,000, which is accepted by Anne. In this example, the questions that need to be answered are why Anne has the obligation to transfer the house to Bob and why Bob has the obligation to pay Anne €400,000. The answers to these questions belong to one of three kinds of answers. The first kind emphasizes the mutual reliance that is created by making contractual promises. For example, Anne promised Bob to transfer her house and Bob's reliance on this promise justifies that Anne has the obligation to perform. The second kind of answer refers to the autonomy of the contract partners. Anne's autonomy gives her the power to undertake contractual obligations by expressing her will to do so. Anne's acceptance of Bob's counter-offer is an exercise of this autonomy, by means of which she undertook the obligation to transfer the house. This justifies the existence of the obligation to transfer. The third kind of answer does not focus on concrete contracts, but on the social practice of contracting, which has been laid down in contract law. Concrete contractual obligations can then be justified by invoking the practice: there is a rule which attaches the obligation to transfer to the contract.

In the subsections 2.1 and 2.2 it will be argued that the first of these two reasons do not cut ice. The third reason, invocation of the social practice of contracting, is the right one, but presupposes a justification of this very practice. This justification is the topic of the subsections 2.3 – 2.5, and in studying it, we will discover that interests play a more important role than will or intention.

## 2.1 Reliance on specific promises

One classic answer to the question of why contract partners derive obligations from their contract is that a contractor induces her partner to do something which he would otherwise not have done, by means of the contract. The contract creates reliance, and this reliance is awarded with an obligation on the partner who induced it.[8] At first sight, this reliance theory of contractual obligation has its attractions, but on closer inspection the theory fails. It will turn out that reliance can only be justified if contracts lead to obligations. However if that is the case, the reliance cannot be the reason why contracts create obligations.

Suppose that Anne told Bob that her house is somber when it is cloudy and that on a cloudy day she would happily transfer her house to anyone offering at least €100,000. On a cloudy day, Bob offers Anne €100,000 and relies on it that Anne will transfer the house. Based on this reliance, Bob sells his own house to C for €110,000, which is considerably less than the market value. Is Anne under an obligation towards Bob to transfer her house to him, against payment of €100,000?

Reliance only leads to obligations if it is justified. This raises the question of under which circumstances reliance counts as justified and leads to obligations. Perhaps it might be argued that in the above example, Bob was justified in relying on Anne's remark. Perhaps Anne is the kind of woman whose remarks are a reliable predictor of what she will do. However, reliance on a trustworthy predictor of future behavior is not the relevant kind of reliance for the creation of

[8] Atiyah 1986; see also Smits 1995.

obligations. Bob should not rely on a mere prediction of Anne's future behavior. This becomes immediately clear if the prediction is not based on the behavior of Anne herself, but on that of some other person. Suppose that Geraldine, Anne's sister, knows Anne well, and can make trustworthy predictions of Anne's future behavior. Bob's reliance that Anne will transfer the house would, legally speaking[9], not be justified if Geraldine predicted the transfer.

Reliance based on trustworthiness would not even be justified if Anne herself would have made this prediction of her future behavior. Bob should rely on it with justification, not merely that Anne will transfer her house, but that Anne placed herself under an obligation to transfer the house. That is only possible, however, if Anne could place herself under this obligation independent of Bob's reliance. However, if Anne could do this, it means that the obligation does not depend on the reliance, and is not justified by it. It is rather the other way around: the reliance is justified by the obligation which came into existence independently of the reliance. Because contracts lead to obligations, a contract partner is justified in relying on the assumption that other contract party will perform.

## 2.2 Autonomy, will and intention

The second kind of answer to the question of why contracts lead to obligations, is that because contractual obligations are undertaken voluntarily and they are willed by the contract partners, they are in that sense expressions of their autonomy.

The problem with this answer is that it is either vague, or unconvincing. To see how it can be vague, one only needs to consider the circumscription of autonomy as given in the *Stanford Encyclopedia of Philosophy*:

> "...to be autonomous is to be one's own person, to be directed by considerations, desires, conditions, and characteristics that are not simply imposed externally upon one, but are part of what can somehow be considered one's authentic self."[10]

The reference to what can *somehow* be considered one's *authentic* self illustrates that this notion of autonomy is in need of elucidation. In the absence of such elucidation, this kind of autonomy cannot play a serious role in the justification of contractual obligations.

Similarly problematic is the view that contractual obligations are justified because they were willed. The very notion of the will is vague. The will is not a conscious event. For instance, it would not make sense to say 'A minute ago, I willed to sell my house'.[11] A better view is that the will is a disposition to act in a particular way. It makes sense to say 'I always willed (wanted) to make a trip to Venice'. That would mean that the person with this will, will make the trip as soon as a suitable opportunity presents itself. However, if the will is such a disposition, it is not clear why having a will justifies a contractual obligation. The person who expresses a will to take a trip to Venice does not need a contract for his motivation to make the trip. Moreover, he has no interest in concluding such a contract: why add an obligation to an already existing motivation? The other contract party may have an interest in the existence of an enforceable obligation and therefore in a contract. However, it does

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[9] The alternative for legally justified reliance is epistemically justified reliance. The very point of the present example is that if a person is epistemically speaking justified in relying on something, this does not automatically mean that this person is also legally speaking justified in relying. Legally justified reliance presupposes contract law, while epistemically justified reliance does not.

[10] Christman 2017.

[11] Ryle 1949, pp. 61-67.

not seem to make sense that this obligation would exist for the mere reason that the first contractor was motivated to make the trip. We can conclude that the will that some action will be performed is not a good reason to justify the existence of an obligation.

Perhaps the view that contractual obligations exist because they were undertaken voluntarily[12] is more promising than the idea that these obligations exist because the obligated behavior was willed. The idea that contractual obligations are undertaken voluntarily may seem to be helpful, at least if the notion of voluntary action is used in the traditional sense of an action not being caused by conditions which should not have caused it.[13] However, it is unclear why the fact that an obligation was *undertaken* voluntarily shows that the obligation itself is justified. If an agent undertakes an obligation, then this agent has an obligation, no matter whether the obligation was undertaken voluntarily. 'Undertaking' is in this respect a success-verb: one can only undertake a task or an obligation if one has this task or obligation after having undertaken it. If voluntariness is a condition, it is a condition for the capability to undertake, not for the existence of what was undertaken.

If this sounds too abstract, perhaps the following example can illustrate my point. If a mountaineer climbs a mountain, she will reach the top by definition of what 'climbing a mountain' means. It does not matter for this purpose whether she did this voluntarily. Whether she climbed voluntarily or not, does not matter for the issue of whether she reached the top. However, on some definitions of climbing, involuntary climbing is impossible. A person who 'climbed' involuntarily was actually dragged to the top of the mountain. The voluntary nature of the event determines whether we call it climbing or being dragged, but not whether the mountain top was reached. Similarly, the voluntariness of undertaking an obligation does not determine whether an obligation came into existence. However, it may be relevant for whether the event could be called 'undertaking' an obligation, rather than having an obligation imposed.

The same reason which makes that the voluntariness of undertaking obligations does not justify the existence of these obligations also applies to the intentionality of undertaking obligations. An agent can contract with the intention to undertake in that way a particular obligation. The precise contents of the obligations are strongly influenced by the intentions of the contract partners. However, the fact that intentions influence the *contents* of the obligations, does not prove that these intentions also justify the *existence* of the resulting obligations. Contracting with the intention to create particular obligations only makes sense if the contracting parties already know that their behavior will lead to the intended obligations. This knowledge presupposes the existence of a social practice according to which contracting leads to obligations. If this practice exists, it justifies the existence of contractual obligations. Then however, there is no need for additional intentions.

Perhaps the mountain climbing example can make this clearer again: intentionally climbing a mountain is only possible for a person who knows that her behavior will lead her to the mountain top. An intentional mountain climber can only know this, if his climbing will bring him actually to the top. This means that reaching the top cannot depend on the intention to do so.

I conclude that specific contractual obligations are not justified by the autonomy, will, or intention of the contracting parties. Together with the finding that these obligations are not justified by reliance either, the conclusion must be that the traditional theories of the justification of contractual obligations fail if they are interpreted as theories about the justification of specific obligations.

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[12] Raz 1972.

[13] The alternative is that an action is voluntary if it is based on a free will. When it comes to vagueness, this notion of a free will can compete with the notion of autonomy: we hardly have a clue what it might be.

However, this does not mean that they also fail as theories of why the social practice of contracting is justified.

## 2.3 Preferences and interests

The social practice of contracting consists of a set of rules that specify which kinds of actions count as contracting, which obligations or other legal consequences result from valid contracts, and which legal steps can be undertaken in case a contractual obligation is not performed. For my present purposes, the details of these rules – which vary from one jurisdiction to another - are not relevant. Even if there exists a social practice of contracting which justifies contract-based obligations, the question may be raised whether such obligations are 'really' justified. The answer depends on whether the social practice itself is justified. If the practice is bad, it cannot justify obligations, but if the practice is a good thing, it can justify obligations. It turns out that if contractual obligations are justified by invoking the social practice of contracting, the success of this justification depends on the justification of the practice itself. This leads us to the question whether the existence of a social practice of contracting is justified. In answering this question, both reliance and autonomy play a role.

It is efficient in the economic sense of 'efficiency', if there is a social practice which makes it possible for agents to undertake obligations in exchange for obligations undertaken by other agents. To see why, it is useful to introduce the notion of a Pareto-improvement, named after the Italian economist Vilfredo Pareto. A Pareto-improvement in the division of goods (in a broad sense) over a population is a change in the distribution which makes at least some members of the population better off, while it makes nobody worse off. A voluntary exchange will normally[14] lead to a Pareto improvement for both[15] parties involved. For example, if Anne values her house on €380,000, while Bob values the house on €420,000, a sale of the house from Anne to Bob for an amount in between €380,000 and €420,000 will lead to a Pareto-improvement. If goods are distributed over a population in such a way that no Pareto-improvement is possible anymore – any exchange will make somebody worse off – the distribution is said to be Pareto-efficient.[16]

Normally, in a voluntary sale both parties will improve their situations if the exchange takes place immediately, and nobody runs the risk that the other party will not perform. However, it is often better if the performance of one or both of the parties takes place later. For instance, Bob only needs the house three months from now, but if he can rely on it that the house will be transferred then, he can already sell his own house to Carol, and use the money to pay Anne. At the same time, Anne can count on receiving the money after three months, and already book the cruise around the world that she always wanted to make. Such delayed exchanges can only function in a reliable way, if there exist mechanisms to enforce them. Reputation is one such mechanism, contract law is another. By making enforcement of contracts and therefore also reliance possible, the practice of contracting facilitates delayed exchanges and will therefore contribute to a Pareto-efficient division of goods and services over society. At least, so it seems.

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[14] Later, I will argue that the clause 'normally' is crucially important here.

[15] I ignore multi-party contracts, but including them would not change the argument considerably.

[16] More details on Pareto-improvements and Pareto-efficiency can be found on https://en.wikipedia.org/wiki/Pareto_efficiency and on http://www.econlib.org/library/Enc/bios/Pareto.html (last visited on 31-12-2017).

## 2.4 If preferences and interests do not match

Pareto-improvements have to do with making members of the population better or worse off. What precisely makes a participant better or worse off is not specified in this characterization. There are both subjective and objective tests for what makes an agent better off.[17] The typical subjective test is preference satisfaction[18]: the situation of an agent is improved if more of his actual preferences are satisfied to a higher degree.[19] A more objective variant of this test takes only informed preferences into account.[20] The typical objective test is based on the interests of an agent, regardless of whether the agent prefers these interests to be satisfied. This test leaves the question open what precisely count as an agent's interests. A traditional answer to this question is that an agent has only one ultimate interest: maximization of happiness.[21] A related answer is the maximization of well-being.[22] There are also pluralist theories according to which there are several interests which must somehow be combined.[23]

Contracts are based on subjective preference satisfaction. They are voluntary transactions, and it seems unlikely that an agent will voluntarily engage in a transaction which violates his actual preferences. Legal subjects do not contract to realize the preferences which they would have under ideal circumstances. Either they do not know what these ideal preferences would be, and can therefore not act upon them, or they know their ideal preferences, but then these have become their actual preferences, since ideal preferences are the preferences which persons would actually have under ideal circumstances. Further, legal subjects do not contract to realize what is good for them, unless they have the subjective preference to do so.

There are several possible reasons why the subjective preferences of a person do not reflect his real interests. First, a subjective preference may be short-lived, and perhaps last only a few minutes. A far-fetched example would be an agent who is under hypnosis and has a preference which disappears as soon as the hypnosis ends. Second, the agent may suffer from a general lack of capacity to form adequate subjective preferences. Obvious examples are young children, some aged people, and persons suffering from a mental handicap or illness. Third, a subjective preference may be badly informed and would have been different if well-informed. An example would be if Bob wants to buy Anne's house, because he believes that there will be a good railway connection from the house to his working place. However, the railway company intends to end this railway connection. If Bob had known this, he would not have wanted to buy the house.

All three examples have in common that an agent has preferences which do not (necessarily) reflect his interests. Often, the law takes this discrepancy into account. A juridical act performed under hypnosis will sometimes be avoidable, and the same holds for juridical acts performed by very young persons, or by persons who are for other reasons not capable to 'form their will'. This last

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17 From here on, I will ignore the possibility that an agent is worse off as the result of some transaction, but the argument on when an agent is better off applies *mutatis mutandis* also to being worse off.

18 Hansson and Grüne-Yanoff 2017.

19 I will ignore the trade-off between the satisfaction of more preferences and a higher degree of satisfaction of less preferences. For a discussion of this trade-off, see Hage 2005.

20 See Hansson and Grüne-Yanoff 2017 on 'filtered' preferences.

21 Bentham 1789, chapter I, section 2.

22 See the discussion of welfarism in Crisp 2017, and Griffin 1986.

23 Mason 2015.

formulation is telling, since almost all persons are capable to form a will.[24] The problem in the mentioned cases is not that people cannot form a will, but that their will may not reflect their interests. From the fact that the law attaches consequences to situations in which the subjective preferences of contract partners do not reflect their real interests, we may conclude that what counts in law is not only people's subjective preferences, but also their interests.

Perhaps, we should even go one step further. It is possible to interpret the importance which the law attributes to the subjective preferences of persons as an indication that these preferences are seen as evidence for their interests. In this interpretation of law, only interests count, and the subjective preferences that people have are relevant as indicators of what their interests are. Indeed, it is easier to establish subjective preferences than to establish interests, and substituting subjective preferences for real interests may in many cases be a responsible epistemic strategy.[25] However, as soon as it becomes clear that the subjective preferences may deviate from a person's real interests, the law provides tools to correct the legal consequences of juridical acts based on unrepresentative preferences. An example from Dutch law would be the following. If a 13-year child old child uses their savings to buy reasonably-priced study books, the contract will be normally valid. However, if they use the money to buy a motor cycle on impulse, the contract can be vitiated.[26]

The tool that is most often used for this purpose is the possibility to avoid juridical acts that do not serve the interests of the agents who performed these acts. The details obviously differ between jurisdictions. In Dutch law, avoidability is – under conditions - available to minors, persons under wardship, persons suffering from a mental disorder, or persons acting under a 'defect of consent', such as mistake, fraud, threat and undue influence.[27] [28]

If a contract does not serve the interests of one of the contract parties[29], it will often be in his interest to avoid the contract. If the other contract partner relied on his performance, this other party's interests will typically be violated. For example, Bob receives word that the railway company will end the train connection between his working place and Anne's house. The acquisition of Anne's house no longer serves Bob's interests, and he may want to avoid the sales contract for the house. However, Anne has booked the cruise around the world that she always wanted to make and if the sale is discontinued, she may have a financial problem. More in general, if it becomes easy to avoid contracts if it turns out that they do not serve the interests of one of the contract parties, it becomes more difficult to rely on contracts. Contracting becomes less attractive, fewer contracts will be concluded, and fewer Pareto-improvements will be realized. Allowing avoidance to protect private

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[24] A *caveat* is in place here, because the expression 'form one's will' suggests that will-formation is under control of the agent. Even if this is sometimes the case, very often it is not. One's will is typically something that just happens to a person.

[25] As Jan Smits pointed out to me, in a meta-ethical non-cognitivist view, there may not be real interests over and above subjective preferences. In that case the satisfaction of subjective preferences coincides with the satisfaction of real interests. Such a non-cognitivist view is in my opinion not very attractive, however, since it does not even distinguish between subjective and informed preferences.

[26] Art. 1:234 S. 3 Burgerlijk Wetboek.

[27] Smits 2014, pp. 91-100 and 159-175.

[28] Notably, the conditions for avoidance typically do not directly mention the interests of the person who is empowered to avoid. Instead the conditions tend to refer to the mental condition of the agent which made it difficult for him to safeguard his interests himself.

[29] If a contract disadvantages both parties, they can terminate the contract consensually.

interests damages the public interest, and this damage needs to be balanced against the interest of one of the contract partners in avoiding the contract.[30]

## 2.5 Conclusion on the justification of contractual obligations

We have considered three possible justifications for the existence of contractual obligations. The first two justifications invoke reliance and autonomy and we have seen that they both presuppose the existence of the very obligations that they aim to justify. Reliance that a contract will be performed is only justified if it may be assumed that a contractual obligation exists. The autonomy to create obligations by means of contracts presupposes the possibility to create obligations by contracting.

The third justification invokes the social practice of contracting. A particular contractual obligation is justified because the contract is an event that according to this practice leads to obligations. The social practice of contracting can only justify particular obligations if this practice actually exists and if it is justified itself. Both reliance and autonomy play their role here again, but this time in an indirect way. The protection of reliance is a reason for recognizing contractual obligations because this recognition and the enforcement that goes with it, facilitates the use of this practice, which itself leads to Pareto-improvements. Autonomy consists in part in empowerment, and the social practice of contracting empowers legal subjects to arrange their own affairs by creating obligations.

However, the role of autonomy in this connection is in need of further justification. It turns out that the law does not unconditionally recognize the autonomy of legal subjects to undertake contractual obligations. The power to undertake these obligations is limited when there is reason to assume that it will not be used in the interest of the subject exercising this power, as when he is a minor, or mentally ill. This suggests that the aim of the law in advancing individual autonomy does not have this autonomy as its final goal, but rather sees it as an instrument to promote individual interests. Moreover, the use of this instrument is limited by the interests of other legal subjects.

We can see this in the possibility to avoid some contracts. The reasons to avoid a contract always relate to the circumstances of concrete cases. The social practice of contracting, laid down in contract law, provides rules which provide that, in general contracts lead to the obligations that the parties intended to undertake by means of the contract. This practice is assumed to be justified because it leads to a more Pareto-efficient society, and reliance pays an important role in this connection. The justification of concrete obligations need not refer to other circumstances than that the parties followed the procedure for undertaking contractual obligations. If one of the parties nevertheless wants to argue that one or more of the obligations do not hold, it must refer to the special circumstances of the concrete case. In this connection, an important argument is that the intention of the party that wants to nullify the contract did not properly reflect his interests. This means that if contracts are seen as reflections of the tension between will and reliance, the role of reliance is most important for the justification of contracting as a social practice, while the will has its most important function in justifying exceptions to the general practice in concrete cases. This role of the will derives its importance from the fact that the intentions of contracting parties do not always reflect the interests of these parties. In the next section I will use the anchoring bias as a tool to

[30] Actually it is slightly more complicated, because it is also a public interest that private interests are safeguarded. To determine what serves the public interest best, it is necessary to balance the decreased number of Pareto-improvements against the better protection of private interests. It depends on many circumstances what the best outcome of this balancing operation will be. There exists a lot of theory dealing with this issue under the headings of duties to inquire and to inform. See Kronman 1978 and Sefton-Green 2005.

demonstrate that this discrepancy between intention and interest is more common than used to be assumed.

## 3. The anchoring bias

The anchoring bias involves a situation in which people who must answer a question or take a decision that involves quantities, tend to let their answer or decision be influenced by a quantity that was placed in their mind just before. This occurs even if this quantity is completely irrelevant for the question or decision. For example[31], a wheel of fortune was rigged to make 10 or 65 the only possible outcomes. After a spin of the wheel – which gave 10 or 65 as result – students of the University of Oregon were asked whether the percentage of African states as members of the UN was larger or smaller than the result of the wheel. This planted either the number 10 or the number 65 in their minds. After that, the students also had to answer the question what is, in their opinion, the percentage of African members of the UN. Students who had 10 as outcome of the wheel estimated the percentage of African members states on the average to be 25. However, students who started from 65 estimated the percentage of African members states on the average to be 45. Somehow the student's estimations were 'drawn' towards the outcome of the wheel of fortune, even though the students were very much aware that this outcome was not relevant for their estimation. The result of the wheel functioned as an 'anchor' for the judgment about the percentage of African UN member states. This anchor biased the judgment of the students, and that explains the name 'anchoring bias'. Other examples of the anchoring bias are the fact that the price a potential buyer is willing to offer for a house is influenced by the asking price, or that a car driver who just left the highway and must now drive at a lower speed, may be tempted to drive too fast.

It turns out that there are two explanations for the existence of the anchoring bias, which complement each other. The one explanation is that there is often uncertainty about the correct answer to a question or decision. An anchor influences the answer, because the respondent takes the answer as starting point for adaptations towards the 'correct' answer. If Anne asks €430,000 for her house, Bob will think this amount too high, and adapt it downward to €400,000. That might be a correct price (uncertainty) and since the reasoning started from a higher price, it stops at the highest amount in a range of possibly correct prices. If Bob would have started the negotiations with an offer of €300,000, Anne would have adapted that amount upwards until the range of possibly correct prices has been reached. Let us assume that this range goes from €350,000 to €400,000. Then, if Anne starts adapting from €300,000, she will arrive at €350,000 as the first possible correct price. It is well possible that she will give this as a counter-offer, which may be accepted by Bob. In this way, the first price mentioned in the negotiations about the sale of a house influences the price for which the house will be sold. It turns out that this anchoring effect even influences the estimations of real estate agents who are aware of the existence of the anchoring bias.

The second explanation for the existence of the anchoring bias is that mentioning an amount before a question is asked, somehow influences the answer to the question by association. Where the anchor exercises a conscious influence on the answer in the first explanation, it has an unconscious influence in the second explanation. The example of the percentage of African UN members illustrates this. The students who had to estimate this percentage will not have taken the outcome of

[31] The present discussion, and all examples are based on Kahnemann 2011, pp. 119-128, which contains references to more specific research.

the wheel of fortune as starting point for conscious adaptations. It is more likely that the result of the wheel unconsciously affected their judgements. Nevertheless, even where there is clearly no connection between the answer that must be given and a number planted in the mind of the respondent to a question, the planted number still 'primes' the answer.[32]

What is the relevance of this anchoring bias for contract law? If an anchor influences the decision that somebody makes, it depends on the anchor what the decision will be. There are then two possibilities. One is that no matter what the anchor, the decision will fall within a range of outcomes that are equally good for the decision maker. Then the anchor does not influence the quality of the decision for the decision maker. In case of contracts this means that the anchor does not influence the (dis)advantages which a contract has for a party. Then the anchoring bias is not relevant for contract law. Although this is theoretically possible, it will not often happen that an anchor has no influence on the attractiveness of the resulting contract for a contract partner.

The other possibility seems more likely. Anchoring means that a contract will influence the interests of the contracting parties. The most frequent situation will be that the party whose decision has been influenced by the anchor will conclude a less advantageous contract than he would have done without the anchor. If Anne asks €430,000 for her house, this will most likely influence the amount that Bob is willing to pay for the house. In our example the parties agreed on an amount of €400,000. However, they might have agreed on a lesser amount, for instance €380,000, if Bob's willingness to pay had not been influenced by the asking price. Then, the anchoring effect costs Bob €20,000. Bob's will (to pay €400,000) did not reflect his interest, which would have been served better if Bob had bought the house for €380,000.

## 4. Coping with irrationality

The anchoring bias illustrates the more general phenomenon that human decision making is often far from rational. People take decisions which they know, or at least could easily have known, not to reflect their interests optimally.[33] The law has traditionally recognized a number of these situations, and has provided tools to limit the effects of irrationality. However, recent psychological, behavioral-economic, and neurologically research has shown that the situations in which people act irrationally are more frequent than was traditionally assumed. How should law deal with the results of this research?

For the purpose of exposition, I will ignore the possible answer that law should do nothing with these results. Moreover, I will confine myself to considering only two extreme ways of taking the recent insights into account. One way is to expand the use of the existing tools. If people are more often irrational than was traditionally assumed, the law might consider more contracts as null and void, and allow contract partners more often to avoid contracts they irrationally concluded. Of course, these possibilities should still take the interests of the other contract partners and of trade in general into account. The precise outcome of this approach cannot be described here, but it is possible to characterize this approach. It is a continuation of present contract law, with minor adaptations to accommodate new scientific insights. Most likely, this is what will actually happen, because law is – for good reasons – a conservative institution.

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[32] This unconscious 'priming effect' also plays a role in different settings than those of anchoring. See Kahnemann 2011, pp. 52-58.

[33] The assumption here is that rationality consists, at least to a large extent, in promoting one's own interests.

The question should be raised, however, whether the recent scientific insights reveal that our image of mankind as a rational decision maker who sometimes lapses, is fundamentally wrong. Perhaps human beings are not very good at promoting their own interests. Perhaps the satisfaction of subjective preferences is not at all a good way to create a Pareto-efficient, or otherwise good, distribution of goods. There are no satisfactory answers to these questions yet, but the recent scientific developments justify that serious attempts will be made to find such answers. Moreover, the willingness should in principle exist, if it turns out that subjective preferences are not reliable indicators of interests, to strongly limit the role of autonomy in contract law. It is even imaginable that the very phenomenon of contracts, where subjective preferences play a crucial role, should be replaced by transactions which better reflect the interests of legal subjects. If that would happen, it would be a very radical change in law indeed. Radical, but also exciting, and worthy of additional study.

## 5. Conclusion

The cognitive sciences provide us in high frequency with insights in the functioning of the human mind. One of these insights – perhaps not even very new – is that human decision making is often not rational. The law has tools to deal with lapses of rationality, but it works on the basis of an image of mankind according to which humans are, and typically act, rationally. This raises the question whether law should be more adaptive to the stream of new insights produced by the cognitive sciences.

The present article aims to answer this general question for an important field of law: the law of contract. It shows in section 3, on the basis of the anchoring bias, that there are good reasons to assume that the conclusion of a contract is often not a rational event. Yet, by making the satisfaction of subjective preferences a cornerstone of contracts, the law seems to presuppose the opposite. Is it therefore necessary to change the law considerably, or is it possible to limit the changes or even to ignore the new insights from the cognitive sciences?

These questions cannot be answered without insight into the essence of a field of law, in our case, of contract law. Section 2 aimed at providing this insight into the essence of contract law by discussing three possible justifications of the phenomenon that contracts lead to legally enforceable obligations. It turned out that two of these justifications, the ones that focused on particular obligations, are unsatisfactory. The justification of particular obligations on the basis of a general social practice of contracting fared better. However, the discussion of this kind of justification also made clear that the social practice of contracting implicitly assumes that subjective preferences are a stand in for objective interests. This assumption can only be made if subjective preferences generally are formed in a rational manner. However, this very assumption is the topic of the doubts created by the cognitive sciences.

The law can follow two strategies[34] in dealing with the insight that contracts, and – extrapolating a bit – juridical acts in general – are often not created rationally. One strategy is to use the tools which law already has for dealing with irrationality for newly discovered kinds of cases such as the anchoring bias. Another, is to redesign substantial parts of the law to take into consideration that subjective preferences often do not reflect objective interests. Which strategy is the best depends on

[34] Of course, more strategies are possible, but they will often be intermediates on a scale of which the two mentioned possibilities are the extremes.

the frequency of situations in which subjective preferences do not reflect objective interests. Is it still rational to use subjective preferences as indicator for objective interests?

The last question cannot be answered here, but suggests a line of research that has become important in the light of the developing cognitive sciences. We need to find out which presuppositions the law makes about the functioning of the human minds. Then we can check whether these presuppositions still hold. If the presuppositions turn out to be outdated, the law must be modified on the basis of insight into the essence of its subfields and on the basis of our recent insights into the functioning of the mind.

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