

# Method e als Machtfaktor revisited: Smart contracts, material justice and pre-eminence

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A spectre is haunting private law—the spectre of the smart contract. We are told that its disruptive potential as a technological force will end the contract as we know it, heralding a new age of not just private law. Within the bounds of the smart contract, no humans beyond the contracting parties will need to be involved, thereby marking the long-promised manifestation of true justice.

That at least is the hope brought forth by many. As this paper will show, the question of whether smart contracts are actually contracts or if they merely profess to be is, at best, contested. There is no consensus on how to treat smart contracts in private law. Consensus, however, is not a prerequisite of *contractness*. Even if it turns out that smart contracts are in fact contracts, it is unlikely that opposition will cease to exist. That applies to the other side as well: Should the smart contract not pass the test and therefore be barred from entering the pantheon of private law, it is unlikely that scripts will cease to function or their standard-bearers delete their code.

Who could settle this dispute? Surely, the parliamentary legislator could decree at any time *pollice verso* one way or the other. Some argue that has in fact already happened. In 2000, the EU Directive on electronic commerce<sup>1</sup> outlines in Article 9 that “member states shall ensure that their legal system allows contracts to be concluded by electronic means.” Is a smart contract merely a way to conclude a contract by electronic means? The planned adoption of a more recent legislation—the proposed Digital Services Act<sup>2</sup>—suggests differently. It sets out to enable “the development

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- 1 Directive 2000/31/EC of the European Parliament and of the Council of 8.6.2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce).
  - 2 Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC (COM(2020) 825 final 2020/0361(COD)).

and use of smart contracts.”<sup>3</sup> So now is the time the legislature encourages the adoption of smart contracts. One could conclude that so far smart contracts have not been enabled by the legislature. One could also conclude that the legislature is unsure if and how smart contracts will fit within the established system of private law—and if they fit at all. By using such language, they delegate the power and duty to other stakeholders of legal discourse.

Who are these actors? Legal academics, for instance, do not have an actual power to determine the fate of the smart contract in the system of private law. They will give an opinion on what they interpret the law to be. The judiciary at least has the *de facto* power to make this decision. Should a conflict arise from a smart contract that is then escalated by the parties to a court of last resort—and that court does not find a different fulcrum on which to settle the dispute—the decision would *de facto* bind lower courts. In their argument, the court would probably *azwould* then probably follow suit and codify that decision.

That, however, is not what this paper seeks to analyse or predict. This paper will argue that there is another way to observe such developments of law. It will argue that other factors encase such developments and other debates fought on different planes that preclude the initial argument. This paper then seeks to highlight some of the debates with a focus on German law, which might be more closely linked to the question of whether the smart contract can fulfil the need of the market and the reigning faction’s understanding of material justice in private law. Once the matter has been settled, legal methodology will inevitably find an elegant way to make smart contracts operational within the framework of private law, if their adoption reduces transaction costs while “better protect[ing] consumers and their fundamental rights online.”<sup>4</sup> Otherwise, smart contracts will be declared inadmissible and their exclusion from the pantheon inevitable.

To that end, this paper will first explore the nature of smart contracts and try to outline the fulcrum of the classification as a contract in private law. Once that has been established, the paper will group the relevant current debates into narratives, represented by a cross-section of publications.

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3 Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC (COM(2020) 825 final 2020/0361(COD)), “1. Context of the proposal” – “Reasons for and objectives of the proposal”.

4 EU Commission, ‘What are the key goals of the Digital Services Act?’, [https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment_en).

These narratives will then be tested against the reasoning on legal positivism argued by Grimm in 1982, identifying *topoi* of material justice as deciding elements of jurisprudential developments. With that knowledge, the paper will then produce some prospects for the developments of smart contracts in the pantheon of private law.

## *I. Smart Contracts*

The German tradition of what a contract is revolves around the concept of *Rechtsgeschäft*,<sup>5</sup> a term that does not seem to have a proper one-to-one translation into English. In the *Bürgerliches Gesetzbuch* (BGB), the plural “*Rechtsgeschäfte*” functions as the title of the third division in book one. The official translation of the code defines them as “legal transactions”<sup>6</sup>, an action or declaration on the legal plane of existence that leads to legal consequences and is rendered ideally with the intention to do exactly that. A contract in that understanding, or at least in the realm of obligations, is the consensual regulation of the relationship of at least two individuals by such a *Rechtsgeschäft*.<sup>7</sup> Two or more free and equal individuals, as either natural persons or while representing legal entities, exchange declarations of the intention to bind each other in a promise. If the declarations match, the BGB holds them accountable to that promise by giving each remedies for the breaking of promises.<sup>8</sup>

The term *smart contract* is usually traced back to a 1994 paper by Szabo where it is defined as a “computerized transaction protocol that executes the terms of a contract.”<sup>9</sup> It is a script within a programming language that is designed to check for specified variables and if those match a pre-decided

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5 See Flume, *Allgemeiner Teil des Bürgerlichen Rechts. Zweiter Band: Das Rechtsgeschäft*, 1992, p. 599 f.

6 See German Civil Code, [https://www.gesetze-im-internet.de/englisch\\_bgb/englisch\\_bgb.html](https://www.gesetze-im-internet.de/englisch_bgb/englisch_bgb.html), right above Section 104.

7 See Flume, *Allgemeiner Teil des Bürgerlichen Rechts. Zweiter Band: Das Rechtsgeschäft*, 1992, p. 601: “*Der Vertrag ist die rechtsgeschäftliche Regelung eines Rechtsverhältnisses, die von den Vertragspartnern einverständlich getroffen wird.*”; with further comparative and historical reference to contract as an institution of private law.

8 For current discussions on the topic in the English language, see Schulze/Viscasiillas, *The Formation of Contract – New Features and Developments in Contracting*, 2016.

9 Szabo, *Smart Contracts*, 1994, <https://web.archive.org/web/20011102030833/http://szabo.best.vwh.net:80/smart.contracts.html>.

value or threshold, produce a pre-defined output to another variable.<sup>10</sup> For these scripts to execute, at least two parties have to access it. The variables often refer to digital assets on both ends.

These kinds of scripts often run on a blockchain, but do not necessarily have to do so. If they are deployed on a blockchain like Ethereum<sup>11</sup>, the script and non-personal information about its users are publicly available and written on a ledger. Only if the ledger is verified by the members of the blockchain is the script executed and the changed variables also attached to the ledger, at which point a transaction has occurred. Ideally, this blockchain then remains as an unchangeable archive of all previous transactions. The blockchain can only be written on, but not modified. The appeal to make contracts *smart*, as in transparent, verifiable, and unchangeable on the blockchain, is compelling.

The question remains if these scripts that are referred to as *smart contracts* are in fact contracts. That is, can a script be a *Rechtsgeschäft*?<sup>12</sup> Perhaps unsurprisingly, the answers to that question range from utter rejection to resounding affirmation. If one were to take a spectroscopy out of the arguments presented, peaks might be discerned among the lines in certain areas.

**Private law is not ready for smart contracts.** The script of a smart contract does not care or recognize whether or not it qualifies as *Rechtsgeschäft*. Smart contracts “will work, no matter if [they are] buggy or not, whether their intent is legal, criminal or outlawed whole-sale. They are called contracts for a reason, but the guarantee of execution they have built in is in something our legal systems are not prepared for. That notion does simply not exist in current law, and no-one knows how judges and law-makers will react.”<sup>13</sup> Making a contract unbreakable, however, is not automatically the best solution; the remedies that have been developed in private law to adapt to changing circumstances are an asset available to both parties. In that sense, “[s]mart contracts may not be so smart”<sup>14</sup>.

**There is a fundamental dichotomy between a “smart contract” and a “traditional contract”.**<sup>15</sup> A smart contract, especially on a blockchain,

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10 Timmermann, Legal Tech-Anwendungen, 2020, p. 710.

11 See <https://ethereum.org/>.

12 Currently the seminal text on the question is Braegelmann/Kaulartz, *Rechtshandbuch Smart Contracts/Möslein*, 2019, p. 81.

13 Diedrich, *Ethereum – Blockchain, digital assets, smart contracts, decentralized organizations*, 2016, p. 242.

14 Pistor, *The Code of Capital*, 2019, p. 191.

15 Sury, *E-Contracting*, *Informatik-Spektrum*, 2019, 146 (146f).

merely documents a *Rechtsgeschäft*, but does not evaluate it.<sup>16</sup> That is a question of semantics reserved for humans. Machines and their scripts only deal in syntax, i.e., “code is not law”.<sup>17</sup> That code is merely a tool for defining conditions that, if met, have a pre-defined result, while a real contract is made up of corresponding *Rechtsgeschäfte*<sup>18</sup> whose transactional quality is based on §§ 145 ff. BGB only.<sup>19</sup> The term *smart contract* is misleading; these scripts merely engrave the conditions of a real contract that has been or will be entered into in a script, potentially on a public ledger.<sup>20</sup> They can be used to perform a traditional contract, such as a vending machine would, if the content of the contract is the exchange of digital assets<sup>21</sup>, i.e., “code is law”.<sup>22</sup> Even the automation part of a smart contract is not new, certainly not to private law, as automation predates even the BGB.<sup>23</sup> Traditional contract law is not capable of rendering smart contracts.<sup>24</sup>

**Smart contracts can be rendered as *Rechtsgeschäfte*.**<sup>25</sup> It is incomprehensible why they should not be able to do so when “every beermat, even a tattoo can indicate declarations of intend to contract. In contrast to those, a blockchain is almost predestined to render *Rechtsgeschäfte*”.<sup>26</sup> The declara-

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16 Heckelmann, Zulässigkeit und Handhabung von Smart Contracts, NJW 2018, 504 (510).

17 Timmermann, Legal Tech-Anwendungen, 2020, p. 81; Möslin, Rechtliche Grenzen innovativer Finanztechnologien (FinTech): Smart Contracts als Selbsthilfe?, ZBB 2018, 205 (217).

18 Heckelmann, Zulässigkeit und Handhabung von Smart Contracts, NJW 2018, 504 (505).

19 Paulus/Matzke, Smart Contracts und das BGB – Viel Lärm um nichts?, ZfPW 2018, 431 (465).

20 Wilkens/Falk, Smart Contracts, 2019, p. 30.

21 Kaulartz/Heckmann, Smart Contracts – Anwendungen der Blockchain-Technologie, CR 2016, 618 (624).

22 Lessing, Code: and other Laws of Cyberspace Version 2.0, 2006, p. 4.

23 Paulus/Matzke, Smart Contracts und das BGB – Viel Lärm um nichts?, ZfPW 2018, 431 (431).

24 Diedrich, Ethereum – Blockchain, digital assets, smart contracts, decentralized organizations, 2016, p. 242.

25 Paulus/Matzke, Smart Contracts und das BGB – Viel Lärm um nichts?, ZfPW 2018, 431 (464).

26 The German original of the direct quotes has been preserved in the corresponding footnotes. The translations are by the author and are not always verbatim; they rather seek to preserve the contextual meaning of the quote. „Jeder Bierdeckel, sogar eine Tätowierung kann einen rechtlichen Willen kundgeben. Im Gegensatz zu diesen ist die Blockchain für die Aufnahme von Willenserklärungen prädestiniert.“

tions can be traced to a person<sup>27</sup> and can be considered received by the other party when they are verified by the members of the ledger and added to it.<sup>28</sup> The automation of the smart contract means that the conclusion of the contract and its performance fall together.<sup>29</sup> It does not matter that the smart contract cannot perform physical obligations, i.e., “repairing of a car”, the exchange of digital assets or amendment of a land registry is just as much a substance of a contract.<sup>30</sup> The analogy to a vending machine actually supports the argument that smart contracts can be *Rechtsgeschäfte*. No one doubts the fact that the use of a vending machine can constitute a contract.<sup>31</sup> Making the conditions of the contract impossible to breach does not make it a non-contract, merely one that cannot be breached.<sup>32</sup> A smart contract not always being a *Rechtsgeschäft* is not tantamount to it never being one; a smart contract has a “technical (syntactic)” and a “legal (semantic)” level to it.<sup>33</sup>

**Smart contracts are only transparent to those who can read the programming language.** If the code is considered the authoritative substance of the contract, it opens the floodgates to “opportunistic behaviour”<sup>34</sup> from those who have command of the programming language. It becomes virtually impossible for the contracting parties to prove deficiencies in the process or their declarations, especially through unjustified enrichment.<sup>35</sup> One would have to reduce the scope of the contract to those facts that are al-

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Heckelmann, Zulässigkeit und Handhabung von Smart Contracts, NJW 2018, 504 (505).

27 Heckelmann, Zulässigkeit und Handhabung von Smart Contracts, NJW 2018, 504 (505).

28 Heckelmann, Zulässigkeit und Handhabung von Smart Contracts, NJW 2018, 504 (510).

29 Kaulartz/Heckmann, Smart Contracts – Anwendungen der Blockchain-Technologie, CR 2016, 618 (619).

30 Kaulartz/Heckmann, Smart Contracts – Anwendungen der Blockchain-Technologie, CR 2016, 618 (619 f.).

31 Schrey/Thalhofer, Rechtliche Aspekte der Blockchain, NJW 2017, 1431 (1431).

32 Schwintowski, Der Smart Contract – nötig für Energieversorger?, EweRK 2018, 205 (205).

33 Kaulartz/Heckmann, Smart Contracts – Anwendungen der Blockchain-Technologie, CR 2016, 618 (624).

34 Fries, Smart Contracts: Brauchen schlaue Verträge noch Anwälte?, Anwaltsblatt 2/2018, 86 (87).

35 Fries, Smart Contracts: Brauchen schlaue Verträge noch Anwälte?, Anwaltsblatt 2/2018, 86 (90).

ready verifiable through technology alone.<sup>36</sup> That especially rules out the application of smart contracts when consumers are involved. For example, § 305 Abs. 2 Nr. 2 BGB will not allow the rendering of terms of contract in a programming language the consumer cannot understand.<sup>37</sup>

**Smart contracts do have potential in the future.** Automated compliance can help users assert their rights more easily.<sup>38</sup> Smart contracts will not replace traditional contracts, but they will become increasingly prevalent and require users and lawyers to shift their engagement to an earlier stage of contracting.<sup>39</sup> A focus will have to be to ensure the parties of the contract will be able to understand not only what the contract does, but also what the consequences of a smart contract can be for them.<sup>40</sup> Before smart contracts are able to replace lawyers, they will have to come a long way.<sup>41</sup>

In short, sticking with a tight understanding of *Rechtsgeschäfte* as core concept of contracting neither makes the smart contract impossible at an immense cost for commerce and progress<sup>42</sup> nor are smart contracts merely a fad.<sup>43</sup>

Convincing legal arguments can be found that seemingly prove contradicting decisions to the question of whether smart contracts are in fact contracts. They circle around similar fulcrums, but come to different conclusions. Who is right? For an answer, we might have to identify a different way to look at these arguments.

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36 Kaulartz/Heckmann, Smart Contracts – Anwendungen der Blockchain-Technologie, CR 2016, 618 (624).

37 Fries, Smart Contracts: Brauchen schlaue Verträge noch Anwälte?, Anwaltsblatt 2/2018, 86 (88).

38 Diedrich, Ethereum – Blockchain, digital assets, smart contracts, decentralized organizations, 2016, p. 248.

39 Fries, Smart Contracts: Brauchen schlaue Verträge noch Anwälte?, Anwaltsblatt 2/2018, 86 (90).

40 Fries, Smart Contracts: Brauchen schlaue Verträge noch Anwälte?, Anwaltsblatt 2/2018, 86 (90).

41 Fries/Paal, Smart Contracts/Finck, 2019, p. 12.

42 Diedrich, Ethereum – Blockchain, digital assets, smart contracts, decentralized organizations, 2016, p. 243.

43 Paulus/Matzke, Smart Contracts und das BGB – Viel Lärm um nichts?, ZfPW 2018, 431 (431).

## II. Methode als Machtfaktor

In 1982, Helmut Coing turned 70 years old. For a German legal academic, this is an important anniversary, marking far more than a retirement. The important question at this juncture in a career is will he or she be granted the highest honour their contemporaries can bestow upon them. For Coing, the answer was yes. With *Europäisches Rechtsdenken in Geschichte und Gegenwart*<sup>44</sup>, the founding director of what was formerly called *Max Planck Institut für Europäische Rechtsgeschichte*<sup>45</sup> was crowned with a *Festschrift zum 70. Geburtstag*.

A group of distinguished legal minds pledged themselves to the project, each of them engaging in deep thought on contributing to this work. The contribution of Dieter Grimm holds insight for the private law of today.

Under the title *Methode als Machtfaktor*<sup>46</sup> (methodology as a question of authority), Grimm sought to analyse the role and use legal methodology had and has—openly and covertly—in the development of private law. He asks, “How and for what purpose has the positivistic methodology in Germany been (ab)used”<sup>47</sup>, and by extension, how it should be understood in a broader context away from the dogmatic battle cries of the time, saying, “If law does not become decisive when entering into force, but acquires its definite manifestation only through its practice, then the methodology [“rules”] of practice are no less relevant for the legal system than the legal norm itself. [...] That is why the grand disputes of the schools of thought in jurisprudence are often less about substance and more about methodology.”<sup>48</sup>

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44 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag*, 1982.

45 *European Legal History*. Today it is the *Max Planck Institut für Rechtsgeschichte und Rechtstheorie – Legal History and Legal Theory* – in Frankfurt am Main.

46 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469.

47 „Grundfrage: wie und wofür wurde die positivistische Methode in Deutschland ausgenutzt?“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (469).

48 „Wenn das Recht mit seinem Inkrafttreten noch nicht völlig bestimmt ist, sondern endgültige Gestalt erst in der Anwendung findet, dann sind die Anwendungsregeln nicht weniger relevant als die Rechtsnormen selbst. [...] Deswegen betreffen die großen Schulenstreite in der Rechtswissenschaft oft weniger Inhalte als Methoden.“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (470).

The specific legal methodology Grimm discusses is positivism. Here he wants positivism to be understood as those methods of interpreting the law that aim to bring forth nothing but the unaltered content of the law. This positivism seeks to exclude all questions of legitimacy, justice, and pragmatism, and to derive answers to normative questions from nothing but the code itself. Positivism at least self-proclaims the intent to do so.<sup>49</sup> Grimm states, “If every conceivable legal problem is preconceived in the code, all solutions must be found in text of the norm alone.”<sup>50</sup> It is through this very claim that legal methodology acquires substantive power.

Grimm opens his analyses with the 19<sup>th</sup> century patron saint of German legal academia, Savigny, which no treatise about methodology or dogmatics can avoid. Grimm describes Savigny’s *Historische Rechtsschule*<sup>51</sup>, the German historical school of jurisprudence, as a way to obstruct or at least inhibit drastic political or societal change. Although in France and Austria central codification projects were seen as the medium to fundamental reorganization and modernization, Savigny countered German cries for a unified civil code with ironclad argument in favour of historic continuity.<sup>52</sup>

Law does not invoke legitimacy by fulfilling a just function for society; its legitimacy echoes from its history.<sup>53</sup> Neither are the people represented by arbitrary parliamentary decisions or acts of state: just law emanates

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- 49 „Unter Positivismus verstehe ich dabei diejenigen Interpretationsmethoden, welche den Sinn von Normen allein aus rechtlichen Faktoren ermitteln wollen, den Rückgriff auf Rechtsideen, Regelungszwecke und Wirklichkeitsbefunde und damit auch alle Anleihen bei den Sozialwissenschaften, der Philosophie und Geschichte ablehnen, weitere Bedeutungen [Geltungsfrage, Gerechtigkeitsfrage, Frage nach dem wirklichen Recht], die sich ebenfalls mit dem Begriff verbinden, scheiden hier aus.“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (471).
- 50 „War jedes erdenkliche Rechtsproblem in der Kodifikation vorgedacht, mußte sich die Falllösung aus dem Normtext allein ergeben.“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (471).
- 51 See instead of many Haferkamp, *Die Historische Rechtsschule*, 2018; Lahusen, *Alles Recht geht vom Volksgeist aus – Friedrich Carl von Savigny und die moderne Rechtswissenschaft*, 2012; Schröder, *Recht als Wissenschaft. Die Geschichte der juristischen Methodenlehre in der Neuzeit*, 3. Aufl. 2021.
- 52 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (473).
- 53 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (476).

from *Volksgeist* (spirit of the people)–“silent forces”<sup>54</sup>. By manifesting the true will of the people through specific interpretation of Roman legal sources–and through this alone–legislation or other sets of norm-giving become void. The oracle that arbitrates between the people and its *Geist* are not their elected representatives or rulers by divine right: this power resides with jurists<sup>55</sup>– meaning law professors, specifically with Savigny. The claim to dominion over the law is absolutized through his systematic thoughts: if every norm individually is only a fragmented expression serving a grander narrative, every contradiction or perceived void can be resolved by attempting to fulfil this exact narrative<sup>56</sup>; *vacui* loses its *horror* and Savigny can provide an answer to every question.

Long battles have been and are to this day fought over what this means and if it is methodologically sound or if it is a methodology at all.<sup>57</sup> What it did was field a conservative jurisprudential legislature at the faculties against the political liberalism in the parliaments, while at the same time enabling an economic liberalism with its derivative of Roman sources.<sup>58</sup>

Savigny’s successors in Grimm’s analysis, Jhering, Puchta, and Gerber, use positivism as an abstraction to decouple law from further societal developments. With that, they block any discourse on the social question. The “why” of law is barred from legal discourse. Laband together with Gerber even introduces this positivism to public law; in this case, the political compromise between economic bourgeois-liberalism and political monarchic-conservatism is thereby anchored through constitutional law.

The 20<sup>th</sup> century brings changing regimes and changing ideologies: Grimm’s positivism however prevails. The Weimar years are shaped by Anschütz and Kelsen. National Socialism changes the legitimacy of law while maintaining its structures by deploying a methodological pluralism, where pre-revolution law is to be gazed through the lens of *gesundes*

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54 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (476); Savigny, *System des heutigen römischen Rechts*, Bd.1, 1840, p. 14.

55 See Savigny, *Vom Beruf unserer Zeit für Gesetzgebung und Rechtswissenschaft*, p. 1841.

56 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (474).

57 See instead of many Kiesow, *Rechtswissenschaft – was ist das?*, JZ 2010, 585; Jansen, *Der Gegenstand der Rechtswissenschaft*, JZ 2020, 213.

58 Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (477).

*Volksempfinden*<sup>59</sup>, thereby made compatible with the new regime's visions. Post-revolution law on the other hand became unchained from the bounds of a judiciary or parliament; here, a strict *Gesetzespositivismus* was to be employed. Grimm's positivism enables both without any contradictions. In the early *Bundesrepublik*, it had the onerous task of renouncing the previous ideology and its methodological paradigms, only later also to revert to a stricter implementation when defending the more progressive changes of the late 1960s against conservatism.

Grimm's "selective observations"<sup>60</sup> lead him to seven conclusions.

- "1. Methodology of the application of law is not an indifferent tool for the interpretation of prescribed contents, but rather a mechanism for selecting said contents."<sup>61</sup>
- "2. Methodology is a distinct/autonomous factor of power that stands aside from positive law and on which the legislature has only limited influence."<sup>62</sup>
- "3. Methodology can be an especially impactful factor of power, because it allows for the [favouring and discrimination] of [contents], without having to mention them by name."<sup>63</sup>
- "4. The choice of methodology seems to depend – among others – on previous value judgements concerning the legal system that is to be interpreted. Methodology reflects preconceptions regarding the contents."<sup>64</sup>

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59 Rütters, *Die unbegrenzte Auslegung – Zum Wandel der Privatrechtsordnung im Nationalsozialismus*, 8. Aufl. 2017.

60 „*Selektive Beobachtungen*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

61 „*Die Methode der Rechtsanwendung ist kein inhaltlich indifferentes Hilfsmittel zur Deutung vorgegebener Inhalte, sondern ein eigener Selektionsmechanismus für Inhalte.*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

62 „*Insoweit erweist sich Methode als ein eigenständig neben das positive Recht tretender Machtfaktor, der als Metaregel vom Gesetzgeber nur begrenzt beherrschbar ist.*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

63 „*Methode kann einen besonders wirkungsvollen Machtfaktor darstellen, weil sie es erlaubt, Inhalte zu begünstigen oder zu benachteiligen, ohne diese beim Namen nennen zu müssen.*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

64 „*Die Wahl der Methode scheint u.a. von einem vorausgehenden Werturteil über die zu interpretierende Rechtsordnung abhängig zu sein. Methode spiegelt die Bewertung des Gegenstandes wider.*“ Horn, *Europäisches Rechtsdenken in Geschichte und*

- “5. Positivism is the methodology of general endorsement – or at least preference – of the status quo which it protects against developments in interpretation or by legislatures.”<sup>65</sup>
- “6. Positivism is only conservative in the sense that it supports the preservation of the status quo. Apart from that it shares the location in the political spectrum with said status quo, which must not necessarily be conservative.”<sup>66</sup>
- “7. The inversion of the argument is not valid however. Non-positivistic methodology is not automatically aimed at overcoming the status quo. The choice of methodology is not only dependent on the pre-conception towards the status quo alone.”<sup>67</sup>

Positivism only claims to find its solutions out of its own pre-conceived corpus of answers. The arbiters between that infinite wisdom of the scripture and the rendered decisions are not indifferent or impartial when working out the will of the code: it implies a pre-conception to uphold the status quo and inhibit change.

Previously, we looked at the legal discourse surrounding the legal quality of smart contracts. The arguments were mostly methodologically sound; they sought their validity by turning the system of private law itself into a template, then simply checking if the smart contract fits through its apertures. What they did not reveal is their pre-conceptions. With Grimm, we need to consider that the shaping of the template has its own template, based on a set of discourses that ground it in a wider context.

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Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm, 1982, p. 469 (492).

65 “*Der Positivismus ist die Methode der prinzipiellen Billigung oder zumindest Bevorzugung des status quo, den er gegen interpretatorische oder legislatorische Veränderungen abschirmt.*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

66 “*Konservativ ist der Positivismus nur in dem Sinn, daß er zur Erhaltung des status quo beiträgt. Im übrigen teilt er dessen Standort, der im Spektrum der Zeit keineswegs konservativ sein muß.*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

67 “*Nicht gilt der Umkehrschluß, daß nichtpositivistische Methoden stets auf Überwindung des status quo gerichtet wären. Die Methodenwahl hängt nicht allein von der Einstellung zum status quo ab.*“ Horn, *Europäisches Rechtsdenken in Geschichte und Gegenwart – Festschrift für Helmut Coing zum 70. Geburtstag/Grimm*, 1982, p. 469 (492).

### III. Material Justice

An answer to the question what that wider context is might be found in Wilhelm-Albrecht Achilles' 2018 paper "Vom Bürgerlichen Gesetzbuch zum Verbrauchergesetzbuch?"<sup>68</sup> Here Achilles concludes that the fundamental conception of the civil code has changed. He supports his argument by analysing changing perspectives of legislators throughout the 20<sup>th</sup> century.

When first discussed and written, the guiding principles were equality and conceptual freedom<sup>69</sup>; including the famed and unsuccessful interventions by the likes of Otto von Gierke calling for "socialist lubrication"<sup>70</sup> in the code. The perspective changes in the second half of the 20<sup>th</sup> century. First, courts reacted to eroding equality with the use of *Allgemeine Geschäftsbedingungen* (AGB) – terms and conditions. In 1976, the legislature followed suit with the introduction of the AGB-Act<sup>71</sup>, with the intention of protecting the consumer at the end of the economic process from a buck-passing mentality of the growing industrial might. With the *Schuldrechtsreform*, the grand overhaul of the civil code triggered amongst others by the implementation of the distance contracts directive<sup>72</sup>, around 2000, the likes of AGB-Act were to be integrated in the civil code<sup>73</sup> with early warnings of arising systematic contradictions.<sup>74</sup> With every new integration and implementation, growing concerns were voiced.<sup>75</sup> With the implementation of the sale of consumer goods directive<sup>76</sup>, the digital content

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68 Achilles, Vom Bürgerlichen Gesetzbuch zum Verbrauchergesetzbuch? – Zum Perspektivwechsel des Gesetzgebers im Kaufrecht, JZ 2018, 953.

69 Achilles, Vom Bürgerlichen Gesetzbuch zum Verbrauchergesetzbuch? – Zum Perspektivwechsel des Gesetzgebers im Kaufrecht, JZ 2018, 953 (954).

70 V. Gierke, Der Entwurf eines bürgerlichen Gesetzbuchs und das deutsche Recht, 1889, p. 192.

71 Gesetz zur Regelung des Rechts der Allgemeinen Geschäftsbedingungen vom 9.12.1976 (BGBl. I S. 3317).

72 Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts.

73 Gesetz zur Modernisierung des Schuldrechts vom 26.11.2001 (BGBl. I 3138).

74 Rückert, Das Bürgerliche Gesetzbuch – Ein Gesetzbuch ohne Chance?, JZ 2003, 749 (749).

75 Faust, Digitale Wirtschaft – Analoges Recht: Braucht das BGB ein Update?, Verhandlungen des 71. Deutschen Juristentags, Bd. I, 2016, S. A 88.

76 Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees.

and digital services directive<sup>77</sup>, and concerning contracts for the sale of goods directive<sup>78</sup>, just to name a few, the civil code is a far cry from the idea that a contract gains its legitimacy from the parties agreeing<sup>79</sup> to the increasing “need of civil law to react [to disadvantages] and facilitate corrections.”<sup>80</sup>

The process described by Achilles is known by many names. In German, the most common name is probably *Konstitutionalisierung des Privatrechts*; literally translated, this means the constitutionalising of private law. For some it is a battle cry; something to rally against.<sup>81</sup> At its core, lies the idea that private law less and less represents the framework for equal parties to regulate their internal relationship autonomously, but that their relationship should be governed by guiding principles. The term is not new; its description is well documented. It is not something from the realm of legal academics, reminiscing grandeur of dogmatics past. Even the parliamentary legislature has accepted it as a reality, stating in 1996, “That [traditional] legal conception is no longer compatible with current economic conditions in the contemporary time of mass production and mass distribution.”<sup>82</sup>

The parties to the contracts resulting from mass production and distribution are consumers. Consumers are going to be seen as the principal parties in contracts governed by the civil code. Consumers are not equal

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77 Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services.

78 Directive (EU) 2019/771 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the sale of goods.

79 Flume, *Allgemeiner Teil des Bürgerlichen Rechts*. Zweiter Band: Das Rechtsgeschäft, 1992, p. 1 ff.; Schmidt-Rimpler AcP 1941, 130; for more context on Schmidt-Rimpler’s contribution to private law before, during and after the NS regime see Rittner, Walter Schmidt-Rimpler (1885–1975), in Grundmann et al. (Eds.), *Deutschsprachige Zivilrechtslehrer des 20. Jahrhunderts in Berichten ihrer Schüler*, 2007, p. 261 and Kirschke, *Die Richtigkeit des Rechts und ihre Maßstäbe: Rechtspolitik, Privatrechtsmethode und Vertragsdogmatik bei Walter Schmidt-Rimpler (1885–1975)*, 2008.

80 “[...] *die Zivilrechtsordnung darauf reagieren und Korrekturen ermöglichen*.“ BVerfG, Beschluss vom 19.10.1993 – 1 BvR 567 u. 1044/89 (Bürgerschaftsentscheidung) = NJW 1994, 38.

81 See Maultzsch, *Die Konstitutionalisierung des Privatrechts als Entwicklungsprozess – Vergleichende Betrachtungen zum deutschen und amerikanischen Recht*, JZ 2012, 1040.

82 “*Solche Rechtsauffassungen entsprechen nicht mehr den ökonomischen Gegebenheiten der heutigen Zeit der Massenfertigung und des Massenvertriebs*.“ BR-Drs. 696/96, p. 4.

partners in contracts. There is an inherent power imbalance between consumers<sup>83</sup> and entrepreneurs<sup>84</sup>. The imbalance between the consumer and the entrepreneur is the normal situation for contracts. One communication from the Commission to the EU Parliament states, “Consumer policy instruments protect all consumers in their dealings with professional traders. It is assumed that consumers are generally the weaker party in a transaction and that their health, safety, and economic interests therefore require protection.”<sup>85</sup> Only equal parties can be autonomous in the way they conduct their contracts; without equality, the parties are not actually free to contract. Consumers do not have an influence on the contracts as such, but they can merely consume the product the entrepreneur offers, accepting said entrepreneur’s conditions. They can also reject the conditions and try to find another suitable product. They can only accept or reject the contract as a whole but are not free to participate in regulating the relationship it produces. In this understanding, by strengthening the position of the consumer, contractual freedom is restored to the level intended when the civil code was first written.<sup>86</sup> One could argue that it is less the pre-conception of the civil code that changed, but rather the economic circumstances it was intended to frame; put simply, “consumers are at the core of a global change.”<sup>87</sup>

If we look at the quality of the smart contract as a *Rechtsgeschäft* simply through the templates that come from the civil code itself, the design of the template itself is based on preconditions. These preconditions are not explained and are not revealed by the examiner. The unrevealed context can be explained as the discourse surrounding material justice. Material justice can be considered a timid decline of private law principles just as much as its restoration.

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83 See § 13 BGB.

84 See § 14 BGB.

85 “3.4. Addressing specific consumer needs, Communication from the Commission to the European Parliament and the Council, New Consumer Agenda Strengthening consumer resilience for sustainable recovery”, COM/2020/696.

86 Canaris, *Wandlungen des Schuldvertragsrechts – Tendenzen zu seiner „Materialisierung“*, AcP 2000, 273.

87 New Consumer Agenda: European Commission to empower consumers to become the driver of transition: 13.11.2020, [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_2069](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_2069).

#### IV. Pre-eminence

This positivism as a method of interpretation and application of law is neither indifferent nor impartial to its substance. It is an influential mechanism of selecting, favouring, and discriminating arguments that have a large impact on the law, but with very limited control of a parliamentary legislature. The mechanisms are influenced by the preconceptions of its user. It therefore has a tendency to favour and stabilise the status quo, independent of the status quo's nature as progressive, conservative, or reactionary.

Smart contracts refer first and foremost to scripts in a programming language that allow their users to transfer variables based on pre-defined conditions that are established within the programme or influenced by outside information, where the transferred variables regularly represent the transfer of digital assets between users. Whether or not these transactions are to be recognised as contracts depends on their quality as *Rechtsgeschäfte*. This judgement must be rendered in terms of the methodology of positivism, i.e., procuring the answer from within the closed and complete system of the civil code. *Lege artis* arguments have been and continue to be brought forth on a broad spectrum. The discourse observes certain peaks marking the front lines.

The preconception positivism carries and defends as status quo can be understood as its stance on material justice. It manifests through arguments rendered under grander narratives like consumer protection and restoration of parity. This pre-conception is not part of the positivistic argument itself, but is implied and does not function as part of the positive discourse.

This paper therefore argues that the question of whether or not smart contracts and related technologies like blockchain are to be qualified as *Rechtsgeschäfte* and therefore should be allowed into the pantheon of private law is contingent. The decision will not be rendered on the grounds of *Rechtsgeschäft*, but rather if these technologies can be permeated through legislation – parliamentary or otherwise – to fall in line with the guiding narratives of material justice. If so, positivism then allows an elegant nomenclature to incorporate smart contracts into its system, thereby fulfilling its promise of pre-eminence: smart contracts will be where they always were, in the closed and complete system of private law. If not, positivism allows an elegant nomenclature to exclude smart contracts from its system, thereby fulfilling its promise of pre-eminence: smart contracts will be where they always were, outside the closed and complete system of private law.

If we think about law as a system that permeates reality in order to make it operational for conflict solving, the question of the smart contract becomes more banal. For example, when you open the door of your car on the driver side into the path of an approaching cyclist who gets injured in that instance, it is accepted that BGB private law should solve this conflict by binding you two into a contract – §§ 823 ff. BGB. This is not an obligation based in *Rechtsgeschäft*, but it is statutory. BGB private law could have solved this conflict differently, but it did not. If you interact with the scripts on the Ethereum blockchain, private law will try to permeate that reality just as much. The question of whether it will do so by accepting it as a contract and applying its system of rights and remedies is programmed as a discourse around whether or not the interaction and transaction can be discerned and qualified as a *Rechtsgeschäft* or not. The decision however will be influenced – if not entirely decided – on another level of rationalising.

A key factor of whether the system of contracts will be used to solve the conflicts arising from the implementation of smart contracts depends on whether said smart contracts can be adapted into the grander narratives of consumer protection and material justice.

Based on this argument, the author offers three propositions on the hidden front lines of this battle:

- Nr. 1: Because the potential substance of the smart contract happens in the realm of syntax and is harder for jurists to permeate without nonjuridical skills in coding, smart contracts must not merely secure the status quo in consumer protection while reducing transaction costs for commercial users but strengthen the rights and remedies for consumers while reducing transaction costs for commercial users in order to be admitted into the pantheon.
  
- Nr. 2: Smart contracts and their outcomes must remain actionable for consumers. The potential of an authoritative decision should remain with a proper court of law. Smart contracts between commercial users will be implemented with or without endorsement of parliamentary legislatures. The lures of being unchangeable, verifiable, and transaction cost reducing will very likely be too great to resist; *Kautelarjurisprudenz* – proviso jurisprudence – will find other forms of resolving potential conflicts arising from using smart contracts.

Nr. 3: In line with Nr. 1, parliamentary legislatures should not treat imbalances between consumers and commercial users in digital environments as mere information asymmetries<sup>88</sup> to be remedied by duties to inform.

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88 Stürner, Die Zivilrechtswissenschaft und ihre Methodik – zu rechtsanwendungsbezogen und zu wenig grundlagenorientiert?, AcP 2014, 7.