Dialogues on Causation with Puppe

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Scholars who have engaged in detailed analysis of the concept of causation and its proper employment in determinations of legal responsibility and ultimate liability are few and far between. I was therefore delighted to receive in September 2010 an email from Ingeborg Puppe, a professor at the University of Bonn, advising me that she had recently come across my work and that our views, which when first published were contrary to the then generally accepted views, were very similar. We had previously been unaware of each other's work, which was written in different languages in different doctrinal areas in different jurisdictions: she on German criminal law and I on tort law in common law jurisdictions. We immediately began frequent detailed correspondence regarding our many areas of agreement and few areas of disagreement, with indispensable assistance, advice and sometimes intervention by Thomas Grosse-Wilde, who has a thorough knowledge and insightful understanding of these issues as discussed and employed in civil law and common law jurisdictions.

I. Our Areas of Agreement

In our initial articles, *Puppe* and I each surveyed and criticized the existing literature and case law in our respective jurisdictions, which generally treated the strong necessity[1] (but-for/sine qua non) criterion as the exclusive test of factual causation but sometimes used unexplained "singularist" ("I know it when I see it") "reasoning". We each attempted to renew interest in prior landmark work that offered an alternative account of causation based on instantiation of the laws of nature (so-called "generalist" accounts).

1. Puppe, Building on Engisch

Puppe wrote first, in 1980,[2] seeking to revive and supplement *Karl Engisch's* insights in his landmark book, "Die Kausalität als Merkmal der strafrechtlichen Tatbestände".[3] *Engisch*, referencing *Hume's* regularity[4] and *Mill's* laws-of-nature[5] analyses of causation,[6] rejected the strong necessity criterion as the exclusive test of causation in singular instances, or even as a proper test if it is employed, as is usually assumed, through counterfactual analysis of what might otherwise have occurred, rather than real world analysis of what actually occurred.[7] He demonstrated the failure of the strong necessity criterion in duplicative and preemptive overdetermined causation situations, without, however, clearly distinguishing the two types of situation,[8] and he explained that, properly ap-

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[1] Relying on descriptions and terminology employed by *Mackie*, *Scriven*, and *Hart* and *Honoré*, I provided in 1988 the following descriptions of the weak, strong and strict senses of necessity and sufficiency: "In descending order of stringency, a strict-necessity test requires [for *Q* to be a cause of *R*] that *Q* be necessary for the occurrence of *R* whenever *R* occurs; a less stringent, strong-necessity test requires only that *Q* have been necessary for the occurrence of *R* on the particular occasion, considering the circumstances that existed on the particular occasion [the but-for/sine qua non test]; and the least stringent, weak-necessity test requires only that *Q* have been a necessary element of some set of actual conditions that was sufficient for the occurrence of *R* – the NESS test. A strict-sufficiency test requires that *Q* be sufficient by itself for the occurrence of *R*; a less stringent, strong-sufficiency test requires only that *Q* be a necessary element of some set of existing conditions that was sufficient for the occurrence of *R* – the NESS test again; and the least stringent, weak-sufficiency test merely 'requires' that *Q* be a part of some set of existing conditions that was sufficient for the occurrence of *R*." *Wright*, Iowa Law Review 73 (1988), 1001 (1020), citing *Mackie*, The Cement of the Universe, 1974 (corrected ed. 1980); *Scriven*, Theory and Decision 2 (1971), 49; *Hart/Honoré*, Causation in the Law, 2nd ed. 1985. Cf. *Puppe*, ZStW 92 (1980), 863 (865–868, 875 et seq.), English translation available at https://ssrn.com/abstract=2743259 (2.11.2022).

[2] *Puppe*, ZStW 92 (1980), 863.

[3] *Engisch*, Die Kausalität als Merkmal der strafrechtlichen Tatbestände, 1931. *Puppe* generously had her assistant *Franz Wenzel* translate into English for me her 1980 article and extracts from *Engisch's* book. In 2020, I posted on the Social Science Research Network my translation into English of the most important part of *Engisch's* book, "Part II: The Condition Theory", but the publisher made me remove it.

[4] *Hume*, A Treatise of Human Nature, 1739–1740, book I pt. III § XIV; *id.*, An Enquiry Concerning Human Understanding, 1748, § VII pt. I, II.

[5] *Mill*, A System of Logic, Ratiocinative and Inductive, 8th ed. 1872 (1st ed. 1843), book III chap. V §§ 3 and 4.

[6] *Engisch* (fn. 3), p. 20, 23 fn. 40, p. 24 fn. 41, 32–33. For discussion of *Hume's* defective regularity account and his skepticism regarding causal laws, *Mill's* detailed elaboration of causal (natural) laws as empirically derived statements of minimally sufficient sets of conditions for the occurrence of some result, and *Arthur Schopenhauer's* brief similar description of causal laws in his doctoral thesis, On the Fourfold Root of the Principal of Sufficient Reason, 2nd ed. 1847 (E.F.J. Payne trans., Open Court 1999, 1st ed. 1813), § 20, see *Wright/Puppe*, Chicago-Kent Law Review 91 (2016), 461 (464–469).

[7] *Engisch* (fn. 3), p. 17–19, 26. Four years later, *Charles Carpenter* also rejected the but-for test as the exclusive test and the related use of counterfactual reasoning, but he did not provide any alternative analysis, *Carpenter*, University of Pennsylvania Law Review 83 (1935), 941 (946–949).

[8] E.g., *Engisch* (fn. 3), p. 12 et seq. (preemptive/duplicative causation of destruction of different portions of a building by fires started at each end, each of which independent of the other would have destroyed the entire building), p. 13 fn. 1 (possible duplicative causation of death by failure to aid), p. 15 et seq. (causation of execution/beating by one of two actors whose action preempted otherwise causal action by the other), p. 22 (possible duplicative rather than but-for causa-

plied, it was a "side effect" of proper causal analysis, according to which actual conditions are tested for their causal status in singular instances through subsumption under the laws of nature.[9]

Engisch did not provide an explicit elaboration of the logical structure of the laws of nature or their instantiation in specific instances in terms of necessary and/or sufficient conditions. However, he seems to have understood that the laws of nature must be structured as abstractly defined minimally sufficient sets,[10] while insisting that for a condition to be a cause in a singular instance it need merely be part of the instantiation of a relevant sequence of fully instantiated laws of nature.[11] He treated omissions as well as positive acts as causes,[12] noted that, despite the resulting vast number of causes of some result, in the law we are interested only in those which were legally wrongful,[13] and treated mental processes as causally determined or at least explainable.[14]

Unfortunately, while building up to the presentation and elaboration of his criterion for identifying singular instances of causation, Engisch noted that, to reach the correct conclusion on causation in as many cases as possible, the strong necessity criterion should be applied by specifying the time and manner of occurrence of the legally relevant concrete result.[15] Despite his immediately following discussion of the limitations of this maneuver and its tautological use to identify as causes conditions already presumed to be causal,[16] his discussion of it, combined with his failure to provide an explicit elaboration of the logical structure of the laws of nature and their instantiation in specific instances, enabled continued adherence by German academics and courts to the strong necessity test as the supposed exclusive test of causation.[17]

In her 1980 article, *Puppe* revisited *Engisch's* prior work[18] and provided what he had not: an explicit weak necessity[19] formulation of the requirement for a condition to be a cause in a specific situation. She defined a cause as a necessary component of a fully instantiated minimally sufficient set of conditions according to natural laws,[20] demonstrated the use of that definition to resolve many duplicative and preemptive overdetermined causation cases,[21] and criticized attempts to modify the strong necessity criterion to reach the correct result in those cases, including the ad hoc disregard of preempted conditions and especially the tautological detailing of the concrete result to include its manner of occurrence or the usually legally irrelevant time and place of its occurrence.[22]

2. Wright, Building on Hart and Honoré

In 1985, being unaware of *Engisch's* and *Puppe's* prior work, I published my first article on causation as discussed and applied in the law,[23] in which I surveyed and criticized the existing literature in common law jurisdictions (primarily the USA), including attempts to modify the strong necessity criterion by detailing the result or its manner of occurrence or to replace it by singularist "reasoning" in the overdetermined causation cases.[24] I attempted to revive, clarify, correct and extend *Hart* and *Honoré's* weak necessity analysis of "causally relevant factors" in their landmark work, "Causation in the Law", the first edition of which was published in 1959,[25] but of which *Puppe* was unaware when she wrote her initial articles on causation. A second edition, which I cite in this article, was published in 1985,[26] after I had submitted the final draft of my article.

Honoré, at least, was aware of *Engisch's* prior work, which he cited in the comparative law portion of their book,

tion of death by shock due to hearing gun shots fired by two different actors); see also the double prevention situations discussed in fn. 12 below. Although it would qualify under his causal criterion, *Engisch*, failing to distinguish causation from legal responsibility, seemed unwilling to treat a trivial contribution to a flood as a cause of the damage caused by the flood, ibid., p. 10, 12.

[9] *Engisch* (fn. 3), p. 17–19, 25–26; see text at fn. 61, 62 below.

[10] See *Engisch's* discussion of the use of *Mill's* Difference Method to determine through empirical investigation the elements of a law of nature. *Engisch* (fn. 3), p. 24–26 and 24 fn. 1. *Grosse-Wilde* reads the passage in the same way, that *Engisch* refers to the necessity of a condition not in an individual case but within a causal law ("weak necessity"), see *Grosse-Wilde*, ZIS 2017, 638 (647 in fn. 60).

[11] *Engisch* (fn. 3), p. 21–23, 25 et seq.

[12] *Engisch* (fn. 3), p. 27–31. Two of his illustrations involve the theoretically most difficult type of causation situation, in which multiple acts or omissions independently block a causal process that would have prevented the result at issue. In each illustration, he treats each act or omission as a cause of the result, ibid., p. 14 et eq., 15 fn. 1, 27 et seq., 27 fn. 5 (two independent acts each prevented operation of a railroad switch), p. 30 et seq. (two independent failures to provide different necessary gun parts prevented construction of guns).

[13] *Engisch* (fn. 3), p. 31.

[14] *Engisch* (fn. 3), p. 28.

[15] *Engisch* (fn. 3), p. 11–15. But see ibid., p. 14–28.

[16] *Engisch* (fn. 3), p. 15–19.

[17] See *Puppe*, ZStW 92 (1980), 863 (873 et seq.).

[18] *Puppe*, ZStW 92 (1980), 863 (863, 873 et seq., 881).

[19] See fn. 1 above.

[20] *Puppe*, ZStW 92 (1980), 863 (871, 890–892, 909); see *ead.*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (153 et seq.); *ead.*, in: Kahmen/Stepanians (eds.), Critical Essays on "Causation and Responsibility", 2013, p. 67 (69 et seq. and fn. 3, 72 et seq.).

[21] *Puppe*, ZStW 92 (1980), 863 (874–878, 888–895); see *ead.*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (155 et seq.).

[22] *Puppe*, ZStW 92 (1980), 863 (863, 868–874, 879–882, 892 et seq.); see *ead.*, (fn. 20 – Essays), p. 78–80, 86–94; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (317–322).

[23] *Wright*, California Law Review 73 (1985), 1735.

[24] *Wright*, California Law Review 73 (1985), 1735 (1774–1788).

[25] *Hart/Honoré*, Causation in the Law, 1959; cf. *Honoré*, ZStW 69 (1957), 463.

[26] *Hart/Honoré* (fn. 1).

for which he was responsible.[27] *Hart* and *Honoré* agreed with *Engisch*, contrary to *Mill*,[28] that more than one distinct (but usually overlapping) set of existing minimally sufficient conditions for a specific consequence could be (and frequently is) instantiated in a specific situation.[29] As far as I know, they were the first to explicitly state the weak necessity criterion and to employ it to identify not only strongly necessary conditions but also independently strongly sufficient conditions[30] (e.g., two fires, each of which was sufficient, in conjunction with the other existing conditions but without the other fire, to destroy a house, which merge or otherwise arrive simultaneously at the house) as "causally relevant factors" in a specific situation.[31] They stated: "A condition may be necessary just in the sense that it is one of a set of conditions jointly sufficient for the production of the consequence: it is necessary because it is required to complete this set."[32]

Hart and *Honoré's* weak necessity definition of a "causally relevant factor" was a major advance in the analysis of causation in the Anglo-American academic literature, in philosophy as well as law.[33] However, the potential clarifying impact of their analysis was undermined by several aspects of their discussion. Most significantly, their analysis of causally relevant factors was only a preliminary step, not even mentioned in the introduction to their book, in their pursuit of their primary project, which was an unsuccessful attempt to use ordinary language analysis to identify supposedly factual, non-normative criteria, applicable in non-legal as well as legal contexts, for treating only one or a few of the many causally relevant factors in a specific situation as causes.[34] Their primary focus on ordinary language analysis, with resultant inclusion of legal responsibility as well as factual causation issues, overwhelmed and sometimes distorted their analysis of causally relevant factors, which was further distorted by their intuitive understanding of a cause as something which "made a difference", their related use of counterfactual reasoning based on hypothetical rather than actual facts, and their confusing employment of overlapping categories of "additional", "combinatory/reinforcing", "neutralizing", "overtaking" and "alternative" causally relevant factors to discuss the (duplicative and preemptive) overdetermined causation cases.[35] Their discussion of causally relevant factors subsequently received minimal notice in the legal literature,[36] and their primary argument promoted further confusion by courts, lawyers and philosophers of the distinct issues of causation and responsibility.[37]

3. The NESS Analysis of Causation Based on Natural Laws

In my 1985 article I created an acronym, "NESS" (necessary element of a sufficient set), which *Puppe* subsequently has adopted, to refer to *Hart* and *Honore's* weak necessity definition of "causally relevant factors", while noting that the condition at issue must be not merely a member of a sufficient set but rather *necessary for the sufficiency* of that set (i.e., that the set must be minimally sufficient).[38] I rejected *Hart* and *Honoré's* employment of normative responsibility principles to treat only some "causally relevant" conditions as causes,[39]

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[27] *Hart/Honoré* (fn. 1), p. 435 fn. 18, 439 fn. 45, 446 fn. 98, 447 fn. 1, 449 fn. 12, 450 fn. 19, 483.

[28] See *Wright/Puppe*, Chicago-Kent Law Review 91 (2016), 461 (468).

[29] *Hart/Honoré* (fn. 1), p. xxxix–xl, 20.

[30] See fn. 1 above regarding the different senses of necessity and sufficiency.

[31] *Hart/Honoré* (fn. 1), p. xxxix–xl, 20, 112 et seq., 122–125, 235–253.

[32] *Hart/Honoré* (fn. 1), p. 112 et seq.

[33] At a conference in Cambridge in 2007, *Honoré* told me that he thought that their book's most significant effect was making philosophers aware of overdetermined causation situations. After publication of their book, several philosophers published similar weak necessity analyses of causation, without, however, citing *Hart* and *Honoré*. Best known is Oxford colleague *John Mackie's* INUS ("insufficient but non-redundant part of an unnecessary but sufficient condition") criterion. See *Mackie* (fn. 1), p. 62; *Honoré*, in: Owen (ed.), Philosophical Foundations of Tort Law, 1990, p. 363, 365 (stating that *Mackie* "applied our idea to causal 'regularities'–causal generalizations as distinguished from specific events"). However, *Mackie* and others followed *Mill* by only applying the weak necessity analysis to the structure of causal laws and insisting on strong necessity in singular instances of causation. Furthermore, *Mackie*, contrary to *Hume* and *Mill*, implausibly claimed that the strong necessity test can be and often is applied in specific instances using singularist reasoning, without any even implicit reference to causal laws. *Mackie* (fn. 1), p. 38–48, 56, 76–78, 121–124, 126 et seq., 224, 257 fn. 14, 267 et seq., criticized in *Wright*, Iowa Law Review 73 (1988), 1001 (1023–1034, 1023 fn. 113). Similar claims by German scholars are criticized in *Hart/Honoré* (fn. 1), p. 433–442; *Puppe* (fn. 20 – Essays), p. 74–77. Both philosophers and lawyers generally fail to note these aspects of *Mackie's* theory and erroneously credit him, rather than *Hart* and *Honoré*, with the initial development and application of the weak necessity analysis of singular instances of causation. See, e.g., *Puppe* (fn. 20 – Essays), p. 72 (citing German academics).

[34] *Hart/Honoré* (fn. 1), p. 1–6, 11–13, 23–108; see *Wright*, in: Kramer/Grant/Colburn/Hatzistavrou (eds.), The Legacy of H.L.A. Hart: Legal, Political and Moral Philosophy, 2008, p. 165 (176 et seq.).

[35] *Hart/Honoré* (fn. 1), p. 29, 122–125, 206 et seq., 235–253; see *Wright*, California Law Review 73 (1985), 1735 (1745–1750, 1796–1798); *id.*, in: Goldberg (ed.), Perspectives on Causation, 2011, p. 285 (286–288).

[36] See *Wright*, California Law Review 73 (1985), 1735 (1788 and fn. 227).

[37] *Wright*, California Law Review 73 (1985), 1735 (1745–1750); *id.* (fn. 34).

[38] *Wright*, California Law Review 73 (1985), 1735 (1788 et seq., 1793, 1803 et seq., 1823); *id.*, Iowa Law Review 73 (1988), 1001 (1019, 1041); *id.*, Vanderbilt Law Review 54 (2001), 1071 (1102 et seq. and fn. 112, 113).

[39] *Wright*, California Law Review 73 (1985), 1735 (1745–1750).

and I demonstrated the use of the NESS criterion to distinguish and properly resolve the (duplicative and preemptive) overdetermined causation cases.[40] I noted that, to distinguish duplicative causation from preemptive causation, we must distinguish (i) mere hypothetical "nomic" (laws-of-nature-based) lawful sufficiency, which guarantees the occurrence of some abstractly described result (for example, the death of a person who has ingested a fatal dose of poison for which there is no antidote), from (ii) actual/genuine causal sufficiency for a specific concrete result, which, as *Engisch* insisted, requires the complete instantiation in the specific situation of the laws of nature underlying the various links in the chain of causation between the alleged cause and the relevant effect.[41] *Puppe* made the same point in her 1980 article,[42] without, however, clearly distinguishing abstract lawful sufficiency as stated in a broad causal generalization from concrete causal sufficiency as stated in appropriate detail for the particular case.[43]

For example, in the case of an attempted fatal poisoning, if (i) enemy 2 inflicts an immediately fatal wound on the victim before there has been sufficient time for the internal bodily processes initiated by ingestion of enemy 1's poison to cause death[44] or (ii) enemy 2 empties out the water in the traveler's canteen, which was poisoned by enemy 1 and was the traveler's only source of water, before the victim (who is unaware of the poison) drinks from the canteen,[45] one of the weakly necessary (NESS) conditions for death by poisoning – in (i) the completion of the required internal bodily processes for death by poisoning and in (ii) the drinking of the poison – was not instantiated, while all of the conditions required for the actual death – by infliction of the fatal wound in (i) or by deprivation of necessary water in (ii) – were instantiated. In either case, enemy 1's supplying of the fatal dose of poison was a preempted condition[46] and enemy 2's wounding of the victim or emptying of the victim's canteen was a preemptive cause. Note that these conclusions are true in the desert traveler example even if enemy 2's emptying of the canteen prolonged the traveler's life because the death by thirst occurred later than the death by poisoning would have occurred.[47]

The requirement of actual causal sufficiency rather than mere potential or hypothetical lawful sufficiency enables the NESS analysis of causation to avoid or resolve the objections to *Hume's* regularity theory and mere "nomic" lawful sufficiency analyses.[48] Critics have claimed that the references to "*causal* laws" and "*causal* sufficiency" in my elaboration of the NESS analysis make it viciously circular.[49] A short answer is that these terms are simply convenient labels for, respectively, the laws of nature (which as *Engisch* noted[50] are empirically derived and contingently verified through obser-

[40] *Wright*, California Law Review 73 (1985), 1735 (1745–1750, 1788–1803); *id.*, Iowa Law Review 73 (1988), 1001 (1012–1014).

[41] *Engisch* (fn. 3), p. 21–28; *Wright*, California Law Review 73 (1985), 1735 (1794 et seq.); *id.*, Iowa Law Review 73 (1988), 1001 (1018 et seq., 1022, 1024 et seq.); see *Paul/Hall*, Causation, A User's Guide, 2013, p. 91: "we must distinguish between causing and causally guaranteeing".

[42] *Puppe*, ZStW 92 (1980), 863 (869, 874–878, 888–892); see *ead.* (fn. 20 – Essays), p. 87–92, 102; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (322–324).

[43] See, e.g., *Puppe*, ZStW 92 (1980), 863 (888: "pre-empted causes are also sufficient conditions for the result according to the laws of nature"; 890: person who planted a bomb in a house that collapsed due to subsidence of the ground prior to the bomb's exploding "fulfilled a sufficient condition according to natural laws for the destruction of the house"; 910: "pre-empted causes […] are also lawfully sufficient conditions for the result"); cf. *Puppe* (fn. 20 – Essays), p. 102.

[44] *Puppe*, ZStW 92 (1980), 863 (875).

[45] *Wright*, Iowa Law Review 73 (1988), 1001 (1024 et seq.).

[46] From the beginning, *Puppe* has described preempted conditions as "preempted causes", which is an oxymoron. See, e.g., *Puppe*, ZStW 92 (1980), 863 (868 et seq., 887–893, 904–910); *ead.* (fn. 20 – Essays), p. 69 et seq., 73 et seq., 79–81; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (320 and fn. 46).

[47] *Wright* (fn. 35 – Perspectives), p. 298; *Puppe* (fn. 20 – Essays), p. 106–107; cf. *ead.*, ZStW 92 (1980), 863 (892 et seq.).

[48] For statement of the objections, see, e.g., *Fumerton/Kress*, Law and Contemporary Problems 64 (2001), 83 (94–102); *Merkel*, in: Paeffgen/Böse/Kindhäuser/Stübinger/Verrel/Zaczyk (eds.), Strafrechtswissenschaft als Analyse und Konstruktion, Festschrift für Ingeborg Puppe zum 70. Geburtstag, 2011, p. 151 (159–162); *Moore*, Causation and Responsibility, An Essay in Law, Morals, and Metaphysics, 2009, p. 475–495; *Paul/Hall* (fn. 41), p. 14–16, 39 et seq., 42 et seq., 70–75, 89–91, 99–102, 143–150, 171 et seq., 191–194; *Steel*, Proof of Causation in Tort Law, 2015, p. 18 fn. 16, 27–33 and fn. 59, 68. Several of these critics fail to focus on causal sufficiency rather than mere nomic lawful sufficiency. *Steel* retreats from most of his criticisms in footnotes, ibid., p. 26 fn. 57, p. 27 fn. 58, 61, p. 29 fn. 64. – For discussion of the NESS account's ability to avoid or resolve the objections, see *Wright* (fn. 35 – Perspectives), p. 289–291, 295–315, 321 et seq.; *Puppe* (fn. 20 – Essays), p. 86–97, 101–105; *Wright*, in: Ferzan/Morse (eds.), Legal, Moral, and Metaphysical Truths, The Philosophy of Michael S. Moore, 2016, p. 171–182; *Puppe/Wright*, in: Infantino/Zervogianni (eds.), Causation in European Tort Law, 2017, p. 17 (26–28); *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (315–317). For a rebuttal to *Moore's* last-ditch references to "trumping" situations, see *Wright* (fn. 35 – Perspectives), p. 302 et seq.

[49] This criticism was initially stated in *Fumerton/Kress*, Law and Contemporary Problems 64 (2001), 83 (84, 101–104), and has been repeated by others, usually without acknowledgment or consideration of subsequent clarifications and rebuttals. See, e.g., *Lagnado/Gerstenberg*, in: Waldmann (ed.), The Oxford Handbook of Causal Reasoning, 2017, p. 565 (572); *Stapleton*, Oxford Journal of Legal Studies 35 (2015), 697 (702 and fn. 19, 703 and fn. 26); *Steel* (fn. 48) at 27 fn. 59.

[50] See *Engisch* (fn. 3), p. 24–26 and fn. 41; text at fn. 10 and 11 above.

vation and experimentation using methods such as *Mill's* Difference Method[51]) and their complete instantiation in specific situations. For more demanding critics, I have provided a definition of causal (natural) laws, with which I believe *Puppe* agrees, that does not employ any causal language, which is then used non-circularly to define "causal sufficiency" (the complete instantiation of the relevant causal laws in a specific situation) and specific causes:

> "A causal [natural] law is an empirically derived statement that describes a successional relation between a set of abstract conditions (properties or features of possible events and states of affairs in our real world) that constitute the antecedent and one or more specified conditions of a distinct abstract event or state of affairs that constitute the consequent such that, regardless of any other then existing conditions, the instantiation of all the conditions in the antecedent entails the immediate instantiation of the consequent, which would not be entailed if less than all of the conditions in the antecedent were instantiated."[52]

> "When analysing singular instances of causation, an actual condition *c* was a cause of an actual condition *e* if and only if *c* was a part of (rather than being necessary for) the instantiation of one of the abstract conditions in the completely instantiated antecedent of a causal law, the consequent of which was instantiated by *e* immediately upon the complete instantiation of its antecedent, or (as is more often the case) if *c* is connected to *e* through a sequence of such instantiations of causal laws."[53]

Critics also point out, correctly, that we almost never employ, or even have knowledge of, fully specified causal laws. Instead, as *Mill* explained, we employ broadly stated causal generalizations, which are incomplete (and thus contingent) and encompass, usually at a gross macro level, a multitude of successive or simultaneously operative more specific generalizations based on the underlying laws of nature. We do the best that we can and as is needed or practical in the specific situation.[54] Nevertheless, as *Mill* noted, an assertion of causation is always an at least implicit assertion of the complete instantiation of a network of underlying causal laws, even when this assertion is based on a single observation.[55]

4. Rejection of Counterfactual Reasoning

Puppe has always insisted, in accord with *Engisch*,[56] contrary to *Hart* and *Honoré*,[57] and more explicitly than *Mackie*,[58] that causal analysis need not and should not employ counterfactual reasoning.[59] In my 1985 article, I described the analysis of necessity in both the strong necessity (but-for/sine qua non) and weak necessity (NESS) accounts as a counterfactual analysis.[60] However, I soon realized and thereafter stated that the "thinking away" or "elimination" aspect of the causal analysis applies only to the empirically derived and contingently validated formulation of the minimally sufficient sets of conditions that are included in causal laws, while the analysis of a singular instance of causation should be a real world matching of actual conditions against the required elements of the relevant causal generalizations and their underlying causal laws.[61] Properly applied, the strong necessity criterion is a corollary of the weak necessity (NESS) analysis that is valid only when there is no causal overdetermination and has two steps, the second of which is causally irrelevant but is satisfied when there is no causal overdetermination: (1) was the condition at issue part of the complete instantiation in the specific situation of the antecedent of one or more relevant causal generalizations and their underlying laws that have as their ultimate consequence the effect at issue (the NESS analysis); and (2) were the other existing conditions insufficient without the condition at

[51] See *Puppe* (fn. 20 – Essays), p. 90–92; *Puppe/Wright* (fn. 48), p. 22–25, 26–28.

[52] *Puppe/Wright* (fn. 48), p. 28. The "regardless" phrase may be superfluous. *Moore* claims that this phrase and the "would not be entailed …" clause are "plainly counterfactual", *Moore*, in: Ferzan/Morse (fn. 48), p. 343 (382 et seq.). They are not, but rather invoke a simple matching of existing conditions in the singular instance with the abstract conditions in the antecedent of the relevant causal law(s). See *Thomson*, in: Kramer/Grant/Colburn/Hatzistavrou (fn. 34), p. 143 (148); text at fn. 61, 62 below. *Moore* also complains that various terms in this definition of causal (natural) laws make it incompatible with the ordinary meaning of "nomic" (lawful) sufficiency. *Moore*, ibid., p. 383; see *id.* (fn. 48), p. 474–495. But that is precisely the point: to distinguish causation from mere abstract lawful sufficiency.

[53] *Puppe/Wright* (fn. 48), p. 28: "after" replaced by "upon".

[54] *Mill* (fn. 5), book III chap. III § 2, book III chap. IV § 1, book III chap. V §§ 2–3; see *Merkel* (fn. 48), p. 159 et seq.; *Moore* (fn. 48), p. 475 et seq.; *Paul/Hall* (fn. 41). p. 14–16, 39 et seq., 42 et seq.; *Thomson* (fn. 52), p. 149; *Puppe*, ZStW 92 (1980), 863 (899); *Wright* (fn. 35 – Perspectives), p. 289–291; *Puppe* (fn. 20 – Essays), p. 86 et seq., 93; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (317).

[55] *Mill* (fn. 5), book III chap. I § 2 and vii fn. *; book III chap. III § 3, book III chap. V § 2.

[56] See text at fn. 7–9 above.

[57] See text at fn. 35 above.

[58] See *Mackie* (fn. 1), p. 64–67, 199, 201–203.

[59] *Puppe*, ZStW 92 (1980), 863 (868 et seq., 875 et seq., 884–886, 888–892); *ead.*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151–155; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (311–314).

[60] *Wright*, California Law Review 73 (1985), 1735 (1784–1788, 1803–1807).

[61] E.g., *Wright*, Iowa Law Review 73 (1988), 1001 (1035–1037, 1040–1042); *id.*, Vanderbilt Law Review 54 (2001), 1071 (1106 et seq.); *id.* (fn. 35), p. 286 et seq. and fn. 14, p. 304, 308; see *Beauchamp/Rosenberg*, Hume and the Problem of Causation, 1981, p. 145–148, 160–164; *Moore* (fn. 48), p. 374–382, 390 fn. 61.

issue for any such complete instantiation (the strong necessity analysis)?[62]

5. Weakly Necessary Conditions as Causes

Going beyond prior discussions by *Engisch*, *Hart* and *Honoré*, and *Puppe*, I explained in my 1985 article that the NESS analysis can and should be used to identify as causes conditions that were neither strongly necessary nor independently strongly sufficient but were weakly necessary,[63] as courts have often recognized using unelaborated, question-begging phrases such as "substantial factor", "material contribution" or simply "contribution".[64] Consider, for example, three sources of force, fire, water, noise, smell, poison, toxin or other type of condition, each of size X, which combine to produce an inseparable harm for the occurrence of which only 2X of the type of condition was necessary. Using the NESS analysis, each of the sources can properly be identified as a cause by including it and either one of the other two sources in a minimally sufficient set that does not include the third source, while being careful to make sure that the actual existence of the third source did not prevent the instantiation of other required conditions in the specified minimally sufficient set.[65]

Puppe did not discuss such situations in her 1980 article. However, she subsequently employed the weak necessity analysis to explain the treatment of each individual who votes in favor of a certain decision, which is adopted by majority vote, as a cause of the harmful consequences that follow from the implementation of that decision, even though each individual's vote was neither strongly necessary nor independently strongly sufficient for the majority vote and the subsequent harmful consequences,[66] and she has subsequently implicitly endorsed, as a co-author, use of the weak necessity analysis in similar situations involving physical forces.[67]

6. Omissions as Causes

Puppe and I each agree with *Mill*,[68] *Engisch*[69] and *Hart* and *Honoré*[70] that omissions and other absences can be and indeed must be admitted as causes. We have each criticized the contrary view, expressed in the statement, "from nothing comes nothing", as being based on a conception of causation that only allows for physical production and that confuses absences of positive conditions, which are observable aspects of real states of affair, with unreal ghostly negative entities.[71] We have noted that refusing to recognize omissions or other absences as real and causal would result in failures to correctly identify the relevant causes, or any cause, in many situations, including, as *Jonathan Schaffer* has persuasively explained,[72] all situations involving human acts as well as omissions.[73]

7. Overdetermined Negative Causation

However, we initially disagreed on the analysis of causation in the most difficult causation cases, those involving overdetermined negative causation (often referred to as "double-prevention" cases[74]) – for example, when one person fails to attempt to use a safeguard that was previously rendered ineffective by another person's act or omission, such as a defective installation or repair of the safeguard or failure to make it available, and an accident occurs which would not have occurred if the safeguard had been provided, effective and used.

We each initially tried to analyze these cases in the same manner as overdetermined positive causation situations, by asking if the negative condition at issue was necessary for the complete instantiation of a set of conditions that was minimally sufficient for the occurrence of the result at issue.[75] However, as critics pointed out, our attempts to distinguish the negative conditions using this analysis were inconsistent.[76] My consideration of the critics' arguments led me to recognize that proper analysis of situations involving the failure of a preventive causal process (negative causation) differs from

[62] *Puppe*, ZStW 92 (1980), 863 (868 et seq., 875–876, 884–886, 888–892); *ead.*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (154 et seq.); *ead.* (fn. 20 – Essays), p. 76 et seq., 101 et seq.; *Wright*, California Law Review 73 (1985), 1735 (1803–1807); *id.* (fn. 35 – Perspectives), p. 286 et seq., 287 fn. 14, 304, 308, 328 et seq.

[63] *Wright*, California Law Review 73 (1985), 1735 (1791–1793). Neither *Engisch* nor *Hart* and *Honoré* writing jointly discussed situations involving conditions that were neither strongly necessary nor independently strongly sufficient. Writing separately, *Honoré* noted, without elaboration or explanation, that such conditions could be causes, *Honoré*, in: Tunc (ed.), International Encyclopedia of Comparative Law, vol. 11, Torts part 1, 1983, §§ 7-107, 7-108, 7-115, 7-121.

[64] *Wright*, California Law Review 73 (1985), 1735 (1781–1784, 1791 et seq.).

[65] *Wright*, California Law Review 73 (1985), 1735 (1791–1793).

[66] See *Puppe* (fn. 20 – Essays), p. 98 and fn. 100; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (324–326).

[67] See *Puppe/Wright* (fn. 48), p. 45 et seq.

[68] *Mill* (fn. 5), book III chap. V § 3; see *Wright* (fn. 35 – Perspectives), p. 311 et seq., 315.

[69] *Engisch* (fn. 3), p. 28.

[70] *Hart/Honoré* (fn. 1), p. 30 et seq., 38, 50 et seq., 59 et seq., 127 et seq., 138–141, 370 et seq., 447–449.

[71] *Puppe*, ZStW 92 (1980), 863 (895–898); *Wright* (fn. 35 – Perspectives), p. 312 et seq.; *Puppe* (fn. 20 – Essays), p. 80–83.

[72] *Schaffer*, in: Hitchcock (ed.), Contemporary Debates in Philosophy of Science, 2004, p. 199 et seq.; *id.*, Legal Theory 18 (2012), 399; see *Wright* (fn. 48 – Truths), p. 177–179.

[73] *Puppe*, ZStW 92 (1980), 863 (895–899); *Puppe* (fn. 20 – Essays), p. 80–83, 94; *Wright* (fn. 35 – Perspectives), p. 313–315.

[74] See, e.g., *Moore* (fn. 48), p. 62.

[75] *Puppe*, ZStW 92 (1980), 863 (901–905); *Puppe* (fn. 20 – Essays), p. 99–101; *Wright*, California Law Review 73 (1985), 1735 (1801–1803).

[76] For cogent criticism of my initial arguments, see *David A. Fischer*, Utah Law Review 1992, 1335 (1357–1359), and *id.*, Kentucky Law Journal 94 (2006), 277 (304–308). For criticism of *Puppe's* initial argument, see *Puppe/Wright* (fn. 48), p. 52 et seq.

the analysis of situations involving the success of a causal process (positive causation). To explain the success of a causal process we need to show that the causal laws underlying the steps in the causal process were all completely instantiated, and we treat any condition that was a part of such complete instantiation as a cause. However, when a causal process has failed, this complete instantiation analysis obviously does not apply. Instead there has been a failure of such complete instantiation, and we need to determine at what point it failed and thereby (if this was a failure of a preventive causal process) contributed to the success of the unprevented positive causal process.[77]

I for some time argued that a failure at an allegedly physically prior step in the preventive causal process (e.g., attempting to use brakes) causes the failure of the entire process at that point and preempts the potential failure at an allegedly physically subsequent step (e.g., the operation of the brakes) that would have been reached if not for the failure at the allegedly physically prior step, even if the defect in the brakes temporally occurred prior to the failure to attempt to brake.[78] *Puppe* has always argued for the opposite, temporally based failure analysis, according to which a preventive causal process fails as soon as there is an irretrievable lack of instantiation of one of its required conditions (e.g., functioning brakes), which preempts the potential causal effect of the subsequent lack of instantiation of another required condition (e.g., attempting to use the brakes) – or, to put it more simply, a negative condition can only be a cause of some harmful result if it was feasible, at the time of the omitted action, for it (in conjunction with other still possible conditions) to prevent the harmful result.[79]

We recently resolved our prior disagreements on this issue. We agree that the proper analysis of overdetermined negative causation situations is a combination of our prior analyses, which should (i), as I have argued, focus on the role of the various negative conditions in causing the failure of the preventive causal process (and thus as a negative cause of the unprevented ultimate result) rather than trying to fit them in as part of the complete instantiation of the unprevented positive causal process, but (ii), as *Puppe* has argued, identify the temporally first irretrievable lack of instantiation of a required condition in the preventive causal process as a preemptive cause of its failure (and thus as a negative cause of the unprevented ultimate result). Just as you cannot kill an already dead horse, you cannot cause the failure of an already failed causal process.[80]

8. Focusing the Causal Analysis on the Legally Relevant Properties of Events and States of Affairs

Generalist accounts of causation, including those limited to strong necessity as well as the more liberal weak necessity (NESS) analysis, have been criticized for their promiscuity. For example, either analysis would treat a mother's birthing a person and a surgeon's saving the person's life at some point as causes of the person's subsequent death, since they are (but-for) causes of his being alive at the time of his death, which is a necessary condition for the occurrence of his death (a transition from the state of being alive to the state of not being alive).[81] Recognizing omissions and other absences as causes exponentially increases the already vast and ever increasing number of causes for any result that appear as one traces back through the causal web, by including failures to intervene by innumerable persons that, if intervention had occurred, would have prevented the result from occurring.

While such conclusions are counter-intuitive, this is because our causal inquiries in law, morality, engineering, and other areas apart from science are almost never asking for a complete causal explanation, going indefinitely back in time, of any event. To provide a complete explanation of any event or state of affairs in its entirety would require reference to the prior state of the entire universe.[82] Causation exists between features or properties of events and states of affairs, rather

[77] *Wright*, Vanderbilt Law Review 54 (2001), 1071 (1128–1131).

[78] *Wright*, Vanderbilt Law Review 54 (2001), 1071 (1128–1131); *id.* (fn. 35 – Perspectives), p. 317–321. My initial statement of this argument, in *id.*, Vanderbilt Law Review 54 (2001), 1071 (1128–1131), was brief and unclear and misled *Fischer* and others into thinking that I was still trying to fit negative conditions into the complete instantiation of a positive causal process, rather than analyzing their contribution to the failure of a preventive causal process. See *Fischer*, Kentucky Law Journal 94 (2006), 277 (304–308 and fn. 136); *Steel* (fn. 48), p. 30. *Fischer's* criticism of the latter argument (ibid., p. 309–312) and *Puppe's* arguments eventually led me to agree with *Puppe's* temporally based analysis.

[79] *Puppe*, ZStW 92 (1980), 863 (900–909); *Puppe* (fn. 20 – Essays), p. 99–101. However, a negative condition can be part of a positive causal process through a person's observation of the negative condition – e.g., failure to salute, sign a document, touch the base, cross the goal line, etc. See *Wright*, in: Neyers/Chamberlain/Pitel (eds.), Emerging Issues in Tort Law, 2007, p. 287 (291).

[80] *Puppe/Wright* (fn. 48), p. 53 et seq.

[81] *Puppe*, ZStW 92 (1980), 863 (880). *Puppe* at times seeks to avoid this conclusion by treating the prior state of a person or thing as a given and focusing on "the disadvantageous change of state of a person or thing, e.g., from alive to dead, from healthy to injured, or from functioning to damaged", ibid., 880, 909 et seq.; *ead.* (fn. 20 – Essays), p. 73 et seq. However, liability often exists for failures to prevent continuation of a previously existing state, and the prior existence of a person or thing, rather than being taken as a given, is a critical fact that needs to be established in preemptive causation cases. See *Wright* (fn. 35 – Perspectives), p. 300–302. The proper response to the promiscuity issue is the one that *Puppe* states is not needed but also employs: "neither the mother nor the doctor did wrong". See *Puppe*, ZStW 92 (1980), 863 (880, 899); text at fn. 82–85 below.

[82] Carnap, Meaning and Necessity, A Study in Semantics and Modal Logic, 2nd ed. 1956, p. 29: "If we require of a fact this maximum degree of completeness […], then there is only one fact, the totality of the actual world, past, present, and future."

than between those events or states of affair as a whole.[83] In law and almost every other area of life, we are interested in explaining only one or a few features/properties of some event or state of affairs, and we usually focus our causal inquiry on only one or a few possible causes of those features/properties.

As *Puppe* and I have both emphasized, causal analysis in the law needs to be preceded by a proper framing of the causal inquiry, in terms of both the beginning and end points and all of the links in the causal chain between the beginning and end points. The description of the end point, the result to be explained, should include only the legally relevant injury, e.g., death or a broken leg, while rarely needing to include the specific place or time at which the injury occurred or other legally irrelevant details such as the victim's haircut or clothing, although these conditions may help to identify the specific event or state of affairs.[84] Similarly, we do not need or want to identify all of the vast number of potential or actual beginning points (contributing conditions), but rather only the legally relevant ones, which are those aspects of a defendant's conduct that made the conduct "wrongful" and thus subject to liability.[85]

II. Our Areas of Actual or Possible Disagreement

The issues on which *Puppe* and I actually or possibly disagree all have to do with the comprehensiveness of the NESS account. I have argued that the NESS account is a comprehensive account of the core concept of causation, which is based on natural laws, and that discussions of causation in the law and elsewhere should be limited to causation in this core natural law sense.[86] I have sometimes incautiously stated that the NESS analysis "captures the essential meaning of the concept of causation"[87] or "is itself the meaning of causation"[88]. I rather agree with *Reinhard Merkel*, who has stated that he views the NESS analysis as "the only correct analysis of the logical structure of the overall causative net and as the basis for causal explanations", while pointing out the need (implicitly assumed in law) for a physicalist ontological account of the processes that are actually going on in single instances of causation.[89] *Puppe*, on the other hand, has been unwilling, at least for legal purposes, to treat the NESS analysis based on natural laws as a comprehensive account of the concept of causation or causal explanation, instead arguing that the law should accept a more restricted or different account in certain contexts or situations, while rejecting the need for an ontological account of the underlying physical or other processes.[90]

Conversely, while I have always insisted on clearly distinguishing causation in its core sense from the normative limitations on legal responsibility with which it is often con-

[83] *Beauchamp/Rosenberg* (fn. 61), p. 251 et seq., 255 et seq., 269–275, 281 et seq.; *Ehring*, in: Beebee/Hitchcock/Menzies (eds.), The Oxford Handbook of Causation, 2009, p. 387 (406 et seq.); *Fumerton*, San Diego Law Review 40 (2003), 1273 (1278); *Mackie* (fn. 1), p. 256–258, 260–267; *Paul*, The Journal of Philosophy 97 (2000), 235; *Wright*, Iowa Law Review 73 (1988), 1001 (1033 et seq. with fn. 171). Although he initially claimed otherwise, *Moore* now agrees. Yet, for reasons internal to his theory, he continues to treat events as the relevant causal relata in the law, contrary to actual legal practice. *Moore* (fn. 48), p. 361–368 and fn. 61, 395 et seq.; see *Wright* (fn. 35 – Perspectives), p. 287 fn. 9; cf. *Paul/Hall* (fn. 41), p. 7 and fn. 1–3 (stating their belief that tokens – properties or features of events – rather than events as a whole are the proper causal relata, but nevertheless focusing on the latter in their subsequent discussion).

[84] *Puppe*, ZStW 92 (1980), 863 (879–887, 892 et seq.); *Wright*, California Law Review 73 (1985), 1735 (1777–1780); *Hart/Honoré* (fn. 1), p. 451; *Honoré* (fn. 33), p. 368, 378 et seq.; see text at fn. 22 and 24 above.

[85] *Hart/Honoré* (fn. 1), p. 116-122; *Wright*, California Law Review 73 (1985), 1735 (1744 fn. 24, 1759–1774); *Puppe*, ZStW 99 (1987), 595 (601); *ead.*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (152–155, 157 et seq.); *Wright*, San Diego Law Review 40 (2003), 1425 (1494–1499); *Puppe* (fn. 20 – Essays), p. 83 et seq., 93; *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (327–329, 343); cf. *Puppe*, ZStW 92 (1980), 863 (898–899).

[86] E.g., *Wright*, California Law Review 73 (1985), 1735 (1740–1758, 1788); *Wright*, Iowa Law Review 73 (1988), 1001 (1009–1014, 1018 et seq.); *id.*, University of Western Australia Law Review 49 (2022), 5 (6–10), available at https://ssrn.com/abstract=4029151 (3.11.2022).

[87] *Wright*, California Law Review 73 (1985), 1735 (1789); *id.*, Iowa Law Review 73 (1988), 1001 (1019): "capture[s] the essence of the concept of causation".

[88] *Wright*, California Law Review 73 (1985), 1735 (1802).

[89] *Reinhard Merkel* email to *Richard Wright*, 24 May 2021; cf. *Merkel* (fn. 48), p. 162–166. As *Merkel* realizes, the physicalist account needs to explain or accommodate apparent gaps in direct physical connection by, e.g., reference to the interaction of distinct positive and negative causal processes, ibid., p. 165 et seq.; see *Puppe* (fn. 20 – Essays), p. 102–105; text at fn. 68–80 above. It also needs a physicalist or causal law explanation of "spooky action at a distance" between "entangled" photons. See *Garisto*, Scientific American [online] 6.10.2022, available at https://www.scientificamerican.com/article/the-universe-is-not-locally-real-and-the-physics-nobel-prize-winners-proved-it/ (3.11.2022).

[90] *Puppe* (fn. 20 – Essays), p. 67 et seq., 80–85; *id./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (308–311, 314 et seq.); see *Merkel* (fn. 48), p. 162, quoting *Puppe*, in: Kindhäuser/Neumann/Paeffgen (eds.), Nomos Kommentar, Strafgesetzbuch, vol. 1, 3rd ed. 2010, Vor § 13 para. 82, 84: "What actually links cause and consequence is the so-called causal law alone." This law itself "establishes the connection between cause and effect"; cf. *Puppe* (fn. 20 – Essays), p. 85: "We can be content to delegate the task of constructing the concept of a cause as the transfer of a conserved physical quantity […] to the philosophy of nature. In any case, as a basic concept of legal attribution, such a notion of cause is not enough."

fused, *Puppe*, like *Hart* and *Honoré*, has attempted to describe the limitations on legal responsibility as parts of the causal analysis. For example, she has stated:

> "All of someone's responsibility for an event is based on a relation of causality between his behavior (doing or omitting) and this event. Whatever is required for justifying this responsibility and distinguishing degrees of it, it is a property of this causal relation or is connected to it."[91]

> "As long as the requirements of objective attribution, like for example materialization of the illicit danger or affection of the purpose of a norm are not formulated as specifications to causation, they remain phrases of no value, which have the intention to correct intuitively the outcome that the result is to be attributed to the perpetrator, because his act caused that result anyway."[92]

In her recent paper co-authored with *Grosse-Wilde*, she more clearly distinguishes the normative aspects of the analysis of legal responsibility from the strictly causal analysis, although she continues to describe the requirements for legal imputation of responsibility as "qualities of an instantiated causal process"[93] or "elements of a responsibility-constituting concept of causation"[94].

1. Humanly Created Rules

Critics of the NESS account of causation, based on the laws of nature, have pointed out, correctly, that humanly created decisional, regulatory or liability rules are not universally applicable natural laws, yet satisfaction of them is often treated as a cause of the results of their implementation.[95] *Puppe* apparently has deemed it necessary to treat such humanly created rules, rather than the laws of nature, as the basis for causal explanations and related attributions of legal responsibility when such rules are applicable.[96] I have noted, instead, that these humanly created rules, like universally applicable mathematical rules used by humans, have no causal content or effect, which rather depends on individuals' recognition and acceptance of them, belief (correct or incorrect) in their instantiation in a specific situation, and decision to act in accord with them, all of which are mental processes that I, in agreement with *Engisch*, *Merkel* and others, believe are governed by the laws of nature.[97]

2. Mental Processes and Other Allegedly Indeterministic Causal Processes

I think/hope that *Puppe* now agrees that, when dealing with situations involving humanly created rules, we need to focus causal analysis on individuals' recognition of and employment of those rules rather than mere reference to the rules themselves.[98] This, however, raises a more fundamental issue. *Puppe*, like *Hart* and *Honoré*[99] but unlike me, *Engisch*[100] and (I believe) *Merkel*[101], has from the beginning argued that mental processes are not subject to causal laws and to treat them as subject to causal laws is contrary to the free will postulate embodied in the law.[102] She argues that we are not entitled to postulate psychological (or physical) causal laws which we neither know nor are able to prove, while nevertheless admitting that we do this for all ordinary causal explanations, physical or mental.[103] She treats some biological processes, e.g., the development of cancer, as well as human decisions, as non-determined. She initially proposed using statistical laws, supposedly not based on causal laws (but then on what?), rather than causal generalizations based on causal laws for such processes, and she still proposes using statistical laws for supposed non-determined physical processes.[104] She now proposes a different analysis of causation for mental processes, based on reasons instead of natural conditions: to cause a person's decision means to give her reasons for this decision which she accepts, even if she has also other reasons for it.[105] She thereby comes to the same result that I finally reached using the NESS analysis,[106] although with different metaphysical premises and without explicitly noting that, regardless of metaphysical approach,

[91] *Puppe* (fn. 20 – Essays), p. 67.
[92] *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (153 et seq.), corrected and revised translation in 2016 of original German text, available at https://papers.ssrn.com/abstract_id=2745271 (2.11.2022).
[93] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306.
[94] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (322, 341–343); see II. 4. and II. 5. below.
[95] E.g., *Stapleton*, Oxford Journal of Legal Studies 35 (2015), 697 (699, 702 fn. 19, 703); *Steel* (fn. 48), p. 32 et seq., 35.
[96] *Puppe* (fn. 20 – Essays), p. 84 et seq.; *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (306, 310, 326).
[97] See *Wright/Puppe*, Chicago-Kent Law Review 91 (2016), 461 (466 et seq., 468–469, 487 and fn. 109), and II. 2. below.
[98] *Wright/Puppe*, Chicago-Kent Law Review 91 (2016), 461 (468 et seq.).
[99] *Hart/Honoré* (fn. 1), p. 51–53; see *Bagshaw*, in: Goldberg (fn. 35), p. 361 (366–369, 375 et seq.).
[100] See text at fn. 12 above.
[101] See *Merkel* (fn. 48), p. 166–169.
[102] *Puppe*, ZStW 92 (1980), 863 (902 and fn. 55, 57, 906 et seq.); *Puppe/Wright* (fn. 48), p. 49 fn. 128; *Puppe* (fn. 20 – Essays), p. 75 et seq., p. 84.
[103] *Puppe*, ZStW 92 (1980), 863 (899, 910); see *Puppe* (fn. 20 – Essays), p. 75–77; text at fn. 54, 55 above.
[104] *Puppe*, ZStW 92 (1980), 863 (902 and fn. 55–57; 906 et seq.); *ead.*, ZStW 95 (1983), 287 (308). I have pointed out significant problems with any statistical or probabilistic approach to proving causation and/or legal responsibility. See *Wright*, Iowa Law Review 73 (1988), 1001 (1042–1067); *id.*, (fn. 35 – Perspectives), p. 195–220.
[105] *Puppe/Wright* (fn. 48), p. 49 fn. 128; *Puppe*, GA 1984, 101 (108–110); see *Bagshaw* (fn. 99), p. 375 et seq.; *Hart/Honoré* (fn. 1), p. xxxvii, 2, 22 et seq., 55–61.
[106] See text at fn. 129 below.

the logical structure of the NESS analysis applies to individuals' consideration of reasons for some decision or action.

I believe that mental processes are physical processes and are thus subject to causal laws, but, like many physical processes, are much less *observably* regular and predictable than the more obvious types of physical processes because humans learn from prior experiences and new information, their reasoning is goal directed (thus preserving a version of free will), the range of relevant conditions is much broader, and the applicable causal generalizations are much more complex and less well understood.[107] Even if mental and other physical processes at the elementary particle/wave level are probabilistic, as modern science apparently generally assumes, they are only partially rather than completely undetermined. In a completely indeterministic world, in which nothing was (weakly or strongly) necessary or sufficient for anything else, unpredictable chaos would reign and the concepts of causation and even probability likely would not exist. Our world is at most only partially indeterministic – that is, probabilistic. The NESS analysis continues to apply in a partially indeterministic world.[108]

3. Non-Independently-Sufficient Conditions Combined with Independently Sufficient Conditions

Our different views on the theoretical issues discussed in parts 1. and 2. above have not resulted in different conclusions regarding causation and/or legal responsibility in specific cases. However, such differences exist and have been the subject of prolonged debate between me and *Puppe* (with helpful interpretation and moderation by *Thomas Grosse-Wilde*) regarding the proper application of the NESS analysis in situations in which one or more non-independently-sufficient conditions co-exist with one or more independently sufficient conditions.

For example, assume (as before) that 2X amount of force, fire, water, noise, smell, toxin, or other type of condition was sufficient in conjunction with other existing conditions for the occurrence of a specific harm and (unlike before) that there were only two simultaneously operative sources of force (etc.), one of size 2X and the other of size X. The one of size 2X is both strongly necessary and independently strongly sufficient for the harm and thus clearly a cause. I argued in my 1985 article that the one of size X also can and should be identified as a NESS condition (and thus a cause) – as would easily be established if (as before) it were one of three sources of size X rather than being paired with a source of size 2X[109] – by including it in a minimally sufficient set that also includes the other condition (of size 2X) accurately described as "at least size X". From the standpoint of natural/scientific causation, it cannot matter how the combined forces (etc.) that caused an "indivisible" (inseparable) harm and consequent damage were split up among the simultaneously operative sources.[110]

In her 1980 article and subsequent papers, *Puppe* has rejected this application of the NESS analysis, at least for legal responsibility purposes. She instead has applied the "at least" descriptive technique to the abstract conditions in the relevant causal law, rather than the concrete conditions in a specific situation, to support rejection of causation and/or legal responsibility in these and other situations.[111]

For example, in her 1980 article, she discussed a situation in which a foreman increased the force applied by a punch press above its minimum setting, which was already sufficient to sever a worker's finger. She described the force required for the severing as "at least *x*", where *x* was the minimum setting, and stated that the foreman's action played "no role" since mentioning it is not "necessary for the causal explanation of the result", by which I believe she meant not necessary for *a/some* concrete NESS causal explanation of the result in the particular situation.[112] *Puppe* noted that, even if "it cannot be determined whether the original setting was sufficient to [sever] the finger […], one cannot include the [foreman's action] in the explanation by using the fact that the power now was at least sufficient to [sever] the finger", because it would be indeterminate whether the foreman's action was necessary for a causal explanation of the severing.[113] She failed to recognize that this argument would also apply to the original setting, if it could not be proved to be strongly necessary or independently strongly sufficient, thus leaving the severing of the finger without any causal explanation.

Puppe seems to have failed to distinguish mere abstract nomic lawful sufficiency (the guaranteed occurrence of some broadly described abstract result) from actual causal sufficiency in a specific situation.[114] While the initial setting of the punch press was lawfully sufficient for the victim's injury once the machine was activated, it did not contribute to any

[107] *Wright* (fn. 35 – Perspectives), p. 307–309; *id.*, Iowa Law Review 73 (1988), 1001 (1037); accord, *Carnap*, An Introduction to the Philosophy of Science, 1995 (corrected ed., Martin Gardner ed.), p. 216–222; *Mackie* (fn. 1), p. xi, 120–126.

[108] See *Carnap* (fn. 107), p. 217, 221 et seq.; *Mackie* (fn. 1), p. 49 et seq., 76, 237–247; *Wright* (fn. 35 – Perspectives), p. 309–311; *id.*, Iowa Law Review 73 (1988), 1001 (1028 et seq. with fn. 145, 1042–1049); *Merkel* (fn. 48), p. 151 et seq.

[109] See text at fn. 63–67 above.

[110] *Wright*, California Law Review 73 (1985), 1735 (1791–1794). The causation issue is often confused with the "no worse off" limitation on legal responsibility when the independently strongly sufficient condition was not a legally responsible condition, so the harm would have occurred anyway in the absence of the unnecessary and insufficient wrongful conditions, ibid., 1798–1801; *id.*, University of Western Australia Law Review 49 (2022), 5 (34, 42, 44).

[111] E.g., those in which the condition at issue reduced the extent of a forthcoming damage. See *Puppe*, ZStW 92 (1980), 863 (883 et seq.). I confess that, after much effort over many years, I still do not understand her argument in this context.

[112] *Puppe*, ZStW 92 (1980), 863 (893 et seq.).

[113] *Puppe*, ZStW 92 (1980), 863 (901); see *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (318 fn. 39).

[114] See text at fn. 41–47 above.

injury until the machine actually was activated, by which time the force applied by the punch press had been increased by the foreman's change of the setting, perhaps by enough for the magnitude of the increase in force to be by itself causally sufficient for the severing of the finger, but in any event clearly contributing (as a part of the overall force) as a NESS condition to the severing of the finger.

The foreman's action, by increasing the applied force, likely caused the finger to be cut off a microsecond faster and may have resulted in a minimally cleaner cut, so one could argue that the foreman's action was a strongly necessary (but-for) cause of the victim's injury specified in such minute detail. Indeed, some, including *Mill*, have argued that, once all of the details of the relevant event or state of affairs are fully specified, there is no instance of overdetermined causation.[115] But, as previously noted, focusing on the event or state of affairs as a whole and its many/infinite details rather than its causally relevant features or properties leads to every prior condition's being a cause.[116] Moreover, all of the details may be the same in preemptive causation situations. Consider, e.g., *Engisch's* hypothetical execution and beating situations.[117]

Puppe, like some British Commonwealth scholars,[118] has similarly failed to distinguish mere lawful sufficiency from actual causal sufficiency and, relatedly, distinct causal contributions to an inseparable injury from legal responsibility for that inseparable injury, in situations in which the severity of the inseparable injury increases with increases in the contributing conditions.[119] *Puppe* has stated:

> "A part of a divisible damage which can be explained without the actions of the culprit is to be separated from the amount of damage for which he is made responsible. For example, if the culprit pollutes a river, which is already polluted by others, he could be declared as being causal for the entire pollution in this river if that is taken as the result to be explained, but this damage is divisible into the amount of pollution that can be explained without his act and the amount that he himself contributed."[120]

Puppe subsequently stated that the "at least" description could and should be applied to the relevant abstract condition in the causal law to enable (i), similar to *Mackie*, an actual condition to be treated as an instantiation of that abstract condition even if it was quantitatively greater than the amount necessary for such instantiation and (ii) multiple actual conditions none of which are independently strongly sufficient to be treated as causes, but not to allow (iii) any actual condition which was not independently strongly sufficient to be treated as a cause when there is a co-existing independently strongly sufficient condition.[121]

Both I and my critics noted that, however applied, the "at least" descriptive technique is too abstract and complex to be understood and employed in actual practice.[122] Moreover, it, as well as the previously discussed fragmentation of an existing condition to allow another existing condition to be treated as a NESS condition,[123] will be of no use in the many situations in which the size of the individual contributing conditions and/or the minimum required aggregate contribution is unknown, as in the two cases most often cited (erroneously) in the United States as supposed examples of causation by multiple independently strongly sufficient conditions, Anderson v. Minneapolis, St. Paul & Sault Ste. Marie Railway Co.[124] and Corey v. Havener.[125] In each of these cases, the courts did not require proof – and it is doubtful that it could have been proved – that the defendant's tortious conduct was strongly necessary, independently strongly sufficient, or weakly necessary, even using the fragmentation or "at least" descriptive techniques, but rather merely that it was a "substantial factor" (Anderson) or "contributed" (Corey).[126] Similarly, it often will be difficult to use these

[115] *Mill* (fn. 5), book III chap. X §§ 1–3 (the "plurality of causes"), book III chap. VI and book III chap. X §§ 1, 4–5 (the "intermixture of effects"); see *Wright/Puppe*, Chicago-Kent Law Review 91 (2016), 461 (468); *Paul/Hall* (fn. 41), p. 146–150.

[116] See text at fn. 82 above.

[117] *Engisch* (fn. 3), p. 15 et seq.

[118] E.g., *Stapleton/Steel*, Law Quarterly Review 132 (2016), 363 (363–365, 368).

[119] See *Keren-Paz/Wright*, American Criminal Law Review 56 (2019), 185 (202–204).

[120] *Puppe*, ZStW 92 (1980), 863 (885 et seq.), 893: "He or she who escalates this minimum effect [sufficient for the harm] can be excluded from the causal explanation right from the start.", 910: "When determining a gradable damage that occurred due to an act, no part of the damage is allowed to be included in the description of the result which can otherwise be explained without this act having occurred.").

[121] *Puppe/Wright* (fn. 48), p. 47; see *Mackie* (fn. 1), p. 43 et seq., 65, 153, 265.

[122] *Kelman*, Chicago-Kent Law Review 63 (1987), 579 (603 et seq.); *Wright*, Vanderbilt Law Review 54 (2001), 1071 (1107–1109).

[123] See text at fn. 63–67 above; *Bagshaw* (fn. 99), p. 370–373.

[124] 179 N.W. 45, 46 (Minn. 1920): destruction of property by two merged independently initiated fires; cf. *Engisch* (fn. 3), p. 12 et seq.: two independently set fires destroyed separate parts of the building before merging to destroy the rest.

[125] 65 N.E. 69 (Mass. 1902): injuries caused by horse's being startled by two independently operated motorcycles; cf. *Engisch* (fn. 3), p. 22: death caused by victim's being shocked and frightened by two independently fired shots.

[126] *Anderson*, 179 N.W. at 46; Corey, 65 N.E. at 69; see *Wright*, San Diego Law Review 40 (2003), 1425 (1442 et seq.). Such situations occur often. See, e.g., Hotson v. East Berkshire Health Authority [1987] AC 750 (HL) (England); Williams v. Bermuda Hospital Bd. [2016] UKPC 4 (British Commonwealth); Bailey v. Ministry of Defence [2008] EWCA (Civ) 883 (England); Clements v. Clements [2012] 2 S.C.R. 181 (Canada); Burrage v. United States, 571 U.S. 204 (2014) (mixed drug overdose); Paroline v. United States, 572 U.S. 434 (2014) (harms caused by creators, distributors and possessors of child pornography); Tidal Oil Co. v. Pease, 5 P.2d 389 (Okla. 1931) (water pollution); *Fischer*, Kentucky Law

techniques to prove that one reason among others for some decision or action was a cause.[127]

Consideration of these issues led me to realize, in agreement with *Engisch's* apparent position,[128] that the conceptual complexities can be avoided and the informational difficulties greatly reduced by applying the NESS analysis only to the construction of causal laws as minimally sufficient sets of abstract conditions, while treating any actual condition that was a coherent part of the complete instantiation of the antecedent portion of a relevant causal law in a specific situation as a cause of the instantiated consequent portion, even if the abstract condition that it helped to instantiate was over-instantiated. To be a coherent part of the complete instantiation it must be consistent with the other required conditions. For example, a second fire that arrived after the house had already burned down would not be consistent with the requirement that there be an existing house to burn down when the fire arrives at the location of the house. Similarly, to establish that some information contributed to a specific decision, it need only be established that the information was considered and counted favorably in favor of the decision; if so, it was part of the complete instantiation in the specific situation of an abstractly defined (in accord with the laws of nature) minimally sufficient set of reasons for that decision.[129]

Puppe is unwilling to agree to this simplification of the NESS analysis. However, in her recent article co-authored by Grosse-Wilde, she cites my (prior) use of the "at least" description technique and acknowledges that, logically, one can regard a condition that is neither strongly necessary nor independently strongly sufficient as a NESS cause, even if there is a co-existing independently strongly sufficient condition, while continuing to disagree "for normative reasons (at least for criminal law)".[130]

4. The "Requirement of Completeness"

Puppe seeks to replace the often-cited "purpose of the norm" or "scope of the risk" limitation on legal responsibility with a causation-based "requirement of completeness". She notes the difficulties in attempting to ascertain the dangers or risks meant to be prevented by some statutory or judicial statement of legally required conduct, even if there is a statutory preamble or judicial statement of purpose.[131] Instead of risk-based analysis grounded in assumed legislative or judicial intent, she argues for employment of a "refinement" of the previously discussed wrongful-aspect causation requirement:[132]

> "[Y]our first resort is to find the purpose *in the norm itself*. The conditions and elements under which a certain way of acting is wrongful or tortious describe the danger, which this prohibition attempts to prevent. In order to ground the responsibility of an actor it is not sufficient that *some* elements of the tortious or wrongful aspects of his act appear in the causal explanation of the damage, *all* have to be mentioned to satisfy the wrongful aspect causation requirement. That is the first part of the requirement of completeness."[133]

> "The second element of the requirement of completeness is that the *factual preconditions* for the actualization of the norm of due care, i.e. the behaviour of other participants, has to occur in the causal explanation of the harm as well."[134]

Contrary to the first quoted statement, the prescribed or prohibited conduct in the legal rule – e.g., "no vehicles in the park" (not meant to exclude emergency vehicles or service trucks) or "do not exceed 50 miles per hour" (enacted for fuel conservation rather than safety reasons) – does not clearly describe the danger or risks meant to be prevented by that rule, which is why resort is needed to some risk-based limitation on legal responsibility in addition to causation-based limitations.

Puppe discusses several situations. The first is a German case in which A and B were riding bicycles on a dark country road at night, with B following A, and A was struck and injured at a crossing by a third bicyclist, C. None of the cyclists had their bike light on, as required on a public way. If B's light had been on, it would have illuminated A or at least the roadway, which C would have noticed and thus stopped or slowed to avoid a collision with A. So B's failure to have his light on was a but-for cause of A's injury. Yet, under the traditional view, B is not legally responsible for A's injury since the purpose of the bike light requirement is to prevent collisions between the rider of the bike and other persons and objects on the road, rather than collisions between *other* road users and objects due to their not being illuminated.[135] *Puppe*

Journal 94 (2006), 277 (284–287); *Spier/Haazen*, in: Spier (ed.), Unification of Tort Law, Causation, 2000, p. 146 et seq.

[127] See *Wright*, Iowa Law Review 73 (1988), 1001 (1037); Bagshaw (fn. 99), p. 375 et seq.

[128] See text at fn. 10, 11 above.

[129] *Wright* (fn. 35 – Perspectives), p. 291, 303–305, 307–309; *id.*, Vanderbilt Law Review 54 (2001), 1071 (1107–1109); cf. *Bagshaw* (fn. 99), p. 375 et seq.

[130] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (327 fn. 78).

[131] *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (158 et seq.); *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (332). But see ibid., p. 336: "By emphasizing the requirement of completeness we do not reject teleological interpretation completely with respect to preambles or legislative intent."

[132] See text at fn. 85 above.

[133] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (332 – emphasis in original); see *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (160): "[O]ne has to prove that the violation of the duty of care – or more precisely – those characteristics of the perpetrator's behaviour, which are not compatible with the norm of care, are causal for the accident."

[134] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (334 – emphasis in original).

[135] *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (159).

argues that such risk-based reasoning is not necessary since the completeness requirement is not satisfied:

> "The obligation to illuminate the bike [rather, to have your bike light on] is only valid under the circumstance that the person concerned drives the bike on a public road in darkness. The fact that the second cyclist [B] rode behind the first one [A] [rather, that B is driving a vehicle on a public road in darkness] must consequently be causal for the first cyclist's accident, otherwise the accident would not meet the purpose of that norm. […] [O]ne could leave aside the second cyclist [B] completely without a change in the result."[136]

Puppe changes the facts but employs similar reasoning in her recent article co-authored with *Grosse-Wilde*. They have the collision occur between C and the second cyclist (B), which supposedly would not have occurred if the first cyclist (A) had had his lights on, which C would have noticed and supposedly stopped or slowed down to avoid colliding with B. They again argue that there is no need to resort to the purpose of the norm or the scope of the risk, since the completeness requirement is not satisfied:

> "[T]he obligation to illuminate one's bike [rather, to have your bike light on] is only valid under the circumstance that the person concerned *drives a vehicle on a public road in darkness*. The fact that the first cyclist (A) rides ahead of the second one (B) [rather, that A is driving a vehicle on a public road in darkness] must consequently be causal for the second cyclist's accident. […] [O]ne could leave aside the first cyclist [A] completely without dropping the result. That the first cyclist was driving a vehicle on a public road without proper light does not need to be mentioned in order to explain the collision of the other two cyclists, but only that he did not light up the country road."[137]

Puppe (and *Grosse-Wilde*) also discuss a situation in which a restaurateur fails, as required when open for business, to illuminate the entry to his restaurant to facilitate safe entry by guests. A passerby stumbles upon an obstacle in the pavement outside the restaurant and gets hurt but would not have done so if the entry had been illuminated, which would have also illuminated the obstacle in the pavement. *Puppe* argues "we can leave the restaurant with its light aside without making the explanation inconclusive and running the business of the restaurant is a condition for the landlord's duty of illumination. Therefore he is not responsible for the accident."[138] *Puppe* and *Grosse-Wilde* argue: "[F]or an explanation of the injury of the pedestrian you need to mention that the lighting installation was defective but not that a guest wanted to enter the restaurant at the same time, which is a *factual precondition* for the landlord's relevant duty of care to apply. So no further recourse to teleological "scope of the duty" considerations is needed to explain why the landlord is not legally responsible for the injury to the pedestrian."[139]

I have long struggled to understand *Puppe's* (and *Grosse-Wilde's*) arguments in these situations. They purportedly are based on an understanding of the tortious/wrongful aspect causation requirement that requires that every condition that was necessary for the relevant conduct to be tortious/wrongful must have existed and contributed to the relevant injury,[140] as I stated in my initial identification and elaboration of the tortious aspect causation requirement, which statement they quote and which *Grosse-Wilde* has said in private communications to me is identical to their completeness requirement. I stated:

> "In general, the tortious aspect of a person's conduct or activity is a cause of an injury only if each of its necessary elements (act, omission, condition or circumstance) contributed to the occurrence of the injury. If a certain element did not contribute to the injury, but was necessary to make the conduct or activity tortious, then it cannot be said that the tortious aspect of the conduct or activity was a cause of the injury."[141]

As applied to the situations that they discuss, it is not enough under this understanding of the tortious/wrongful aspect causation requirement that there was, in the bicycle collision case, a lack of required lighting on the defendant's bike, which was a (but-for) cause of the victim's injury. It must also be true that all the conditions necessary for the lighting to be required not only existed in each situation (which is true) but also contributed to the victim's injury. Their argument in the bicycle collision case, apparently, is that the defendant's conduct was wrongful only if he failed to have his bike light on while operating his bicycle on a public road in the dark, but that only the failure to have the bike light on, while on a road, in the dark contributed to the collision and resultant injury; the fact that the defendant's bicycle was on a *public* road did not contribute to the victim's injury.

Their argument in the restaurant case, apparently, is that the restaurateur's conduct was wrongful only if she failed to have the restaurant entry area lit (when it is dark) during open hours (or when a customer was about to enter or leave the premises), but that only the failure to have the entry area lit when it was dark contributed to the passerby's injury; the fact that the defendant was engaged in the restaurant business (and/or the fact that a customer was about to enter) did not contribute to the passerby's injury.

[136] *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (160).
[137] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (333 – emphasis in original).
[138] *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (160). *Puppe* discusses a third example involving failure of a driver to stop at an occupied pedestrian crosswalk, ibid.
[139] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (334 – emphasis in original).
[140] See fn. 133 above and accompanying text.
[141] *Wright*, California Law Review 73 (1985), 1735 (1768), quoted in *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (332 fn. 100).

I reject these applications of the wrongful aspect causation requirement by *Puppe* and *Grosse-Wilde*, which rejection may require a revision of my initial description of the requirement, e.g., by elimination of consideration of certain types of preconditions.[142] While *Puppe's* and *Grosse-Wilde's* interpretation and application of the requirement would not seem to result in unacceptable denials of causation and legal responsibility in the restaurant situation (if the plaintiff is a customer, the fact that it is a restaurant and that the plaintiff was attempting entry to eat would be causally relevant), its deployment even in that situation is far from transparent, and it would result in a great number of improper and implausible denials of causation and legal responsibility in road traffic cases, since its being a *public* road is causally irrelevant.

Puppe and *Grosse-Wilde* also discuss Gorris v. Scott,[143] which is a leading case in common-law jurisdictions on risk-based limitations on legal responsibility. Under the authority of the Contagious Diseases Act, an order was issued requiring any ship bringing sheep or cattle from any foreign port to ports in Great Britain to have the place occupied by such animals divided into pens of certain dimensions, and the floor of such pens furnished with battens or foot-holds. The preamble of the statute stated that its purpose was to guard against the possibility of sheep or cattle being exposed to disease on their way to Great Britain. None of the ordered requirements were implemented, but the sheep, rather than suffering from contagious disease, were washed overboard during a storm, which the owner of the sheep plausibly claimed would not have occurred if the ordered requirements had been implemented. The court, noting that the purpose of the order was to prevent contagious disease rather than animals' being washed overboard, held that the defendant was not liable.

Puppe and *Grosse-Wilde* claim that the legal responsibility issue in Gorris v. Scott can be solved using the completeness requirement "without resort to 'purpose of the norm' or 'scope of statutory duty' considerations".[144] They argue that "the requirement of completeness is not fulfilled since what made the conduct unlawful […] was *not* to carry some 'unpenned animals' but to carry animals 'not locked in separate pens' [with battens or foot-holds]", while "[t]o explain that the sheep were washed overboard it is sufficient to mention that they were unpenned but not that they were not penned in separate boxes [with battens or foot-holds]," so "[s]ome elements of what made the behavior unlawful do not need to be mentioned in order to explain the result".[145] This argument confuses situations in which all of the required conditions are necessary for negligence from those, like here, where a lack of any of the required conditions is sufficient for negligence. The lack of satisfaction of *any one* of the required conditions, especially the lack of any penning at all, is a breach of the required duty and thus sufficient for a finding of negligence and wrongful aspect causation, as *Puppe* and *Grosse-Wilde* admit.[146]

5. The "Principle of Continuity"

Puppe's "principle of continuity" requires that, at each step in the causal chain linking the defendant's wrongful conduct and the plaintiff's legally recognized injury, there be an unlawful state of affairs or "illicit circumstances" that is causally connected with the prior links in the causal chain.[147] The unlawful state of affairs or "illicit circumstances" need merely be, and usually is, a risky situation generated by the wrongful aspects of the defendant's conduct, which need not have been foreseeable at the time of the defendant's wrongful conduct.[148] "The question is whether one needs to mention the wrongful aspects of the defendant's behaviour or other unlawful risks, created by these wrongful aspects of the behaviour, for the next step in the causal chain."[149] *Puppe* and *Grosse-Wilde* note that the continuity principle is "strikingly similar" to *Warren Seavey's* "termination of risk" rule,[150] "obviously similar" to *Dejean de la Bâtie's* idea of "the continued spread of evil" "[t]hat is in essence our continuity requirement",[151] and also similar to the "risk playout require-

[142] I long ago retreated in my classes from the statement in my 1985 article that the tortious aspect of some conduct should be specified as the minimal change needed to render the conduct non-tortious. I realized this was a bad (indeterminate, possible worlds) way to put it and no longer repeated it, but I don't know that I have ever explicitly acknowledged this in any publication. I now do so: see *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (335 fn. 107).

[143] (1874) 9 LR Ex. 125.

[144] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (334).

[145] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (335 – emphasis in original).

[146] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (335).

[147] *Puppe*, European Journal of Crime, Criminal Law and Criminal Justice 11 (2003), 151 (162); see *ead./Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (338): "[T]here has to be a continuity of unlawful state of affairs along the causal chain."

[148] See *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (342): "Using these three requirements [wrongful aspect causation, the requirement of completeness and the principle of continuity] there is no need anymore to resort to the popular requirement of foreseeability of the harm or the causal chain by which most of the cases we discussed are solved by the standard view both in tort and criminal law."

[149] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (338).

[150] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (339 fn. 121), citing *Seavey*, Harvard Law Review 56 (1942), 72 (93).

[151] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (340 and fn. 123), citing *Dejean de la Bâtie*, in: Aubry/Rau (ed.), Droit civile français, vol. VI-2: Responsabilité délictuelle, 8th ed. 1989, p. 121–140. For a short English summary of his theory, see *Fairgrieve/G'sell-Marcrez*, in: Goldberg (fn. 35), p. 111 (119).

ment" that I initially identified[152] and that I and others successfully had adopted in the Restatement Third of Torts in place of the traditional "harm matches/within the risk" limitation.[153]

III. Summing Up

There are further issues which could and perhaps should be discussed, such as my and *Puppe's* respective writings and communications regarding the existence, content, and proper application of the "superseding cause"/"act of god"[154] and "no worse off"/"lawful alternative conduct"[155] limitations on legal responsibility or liability. However, these issues, especially the latter one, are complex and this paper is already too long and late.

While, pending further discussion, we disagree on some issues, such disagreement should not detract from our agreement on the most fundamental issues, including the weak necessity (NESS) covering law account of causation, the rejection of counterfactual possible worlds analysis, the inclusion of omissions and other absences as causes, the importance of focusing the causal analysis on the properties of events and states of affairs rather than events and states of affairs as a whole, and, relatedly, the importance of focusing the causal analysis for purposes of legal responsibility on the causal connection between the wrongful aspects of the defendant's conduct and the relevant legal injury. Whatever disagreements we may have now or in the future pale in comparison to the defects of any alternative analysis of causation, especially singularist theories, which purport not to rely on causal laws, and generalist theories that purport to rely exclusively on some version of strong necessity.

Kommentar von Prof. Dr. Ingeborg Puppe, Bonn

Seit vielen Jahren gibt es bei uns eine anglophile Fraktion. Deren Anhänger ermahnen uns, doch nicht so stolz auf unsere lebendigen und fruchtbaren wissenschaftlichen Beziehungen zu Kollegen aus Südeuropa und Südamerika zu sein und uns stattdessen dem Studium der angloamerikanischen Jurisprudenz zuzuwenden.[1] Zwar dürften wir von den englischen und amerikanischen Kollegen nicht erwarten, dass sie bereit wären mit uns zu reden, aber wir würden uns doch von einem „Strom frischer neuer Ideen" abschneiden,[2] wenn wir uns davon abhalten ließen. Dazu kann ich nur sagen: do it yourself, zeigen Sie Gebiete auf, auf denen wir von den englischen und amerikanischen Kollegen lernen können und probieren Sie selbst aus, ob diese bereit sind, mit uns zu reden.

Ich habe das ausprobiert, auf dem Gebiet der Kausalität und auf dem Gebiet der Konkurrenz. Dabei habe ich den Eindruck gewonnen, dass die amerikanische Jurisprudenz auf diesen Gebieten innovativer ist als die unsere.[3] Das liegt nicht daran, dass es bei uns an Ideen fehlt, wir haben davon eher zu viele! Aber der deutsche Professor und auch die deutsche Professorin zieht es vor, eigene neue Ideen zu entwickeln, statt bereits vorhandene zu verbessern, zu verteidigen oder fortzuentwickeln.

Als ich meine Studien zur Kausalität begann, wollte ich eine Idee, die ich für richtig hielt und noch halte, ergänzen und fortentwickeln: *Engischs* Lehre von der gesetzmäßigen Bedingung. *Engisch* hatte gezeigt, dass die immer noch herrschende Bestimmung der Beziehung zwischen einer Einzelursache und einem Erfolg als notwendige Bedingung logisch falsch ist. Sie führt zu Folgen ohne Ursache in Fällen von Mehrfachkausalität, also wenn mehrere ursächliche Bedingungen gegeben sind, die sich im Kausalverlauf gegenseitig ersetzen können, und bei Vorhandensein von sog. Ersatzursachen.[4] *Engisch* hat aber später selbst behauptet, dass er das Problem der logischen Beziehung zwischen einer Einzelursache und der Folge nicht habe lösen können.[5] Also beschloss ich, dies nachzuholen. Wie die Beispiele von *Engisch* zeigen, ist für die kausale Erklärung eines Erfolges nicht eine notwendige Bedingung zu verlangen, sondern eine hinreichende, also eine Bedingung, von der aus auf den Eintritt des Erfolges zu schließen ist und nicht umgekehrt. Nun ist aber eine menschliche Handlung allein niemals hinreichend zur Herbeiführung eines Erfolges. Dafür muss eine Unzahl weiterer Bedingungen gegeben sein, die wir zum größten Teil stillschweigend als gegeben voraussetzen, das sog. kausale Feld. Die Handlung kann also nur ein notwendiger Bestandteil einer solchen hinreichenden Bedingung des Eintritts des Erfolges sein. Dieses Ergebnis habe ich in einem Aufsatz im Jahre 1980 veröffentlicht.[6] Im Jahre 1985 erschien der Aufsatz von *Wright*, in dem er die Einzelursache als NESS-Bedingung bestimmte, ein Akronym für „necessary element of a sufficient set". Dabei hat sich *Wright* nie als Erfinder dieser Bestimmung der Ursache bezeichnet, sondern immer wieder

[152] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (340 and fn. 127 and 129), citing *Wright*, San Diego Law Review 40 (2003), 1425 (1486, 1493); see ibid., 1499–1502.

[153] Restatement Third of Torts, Liability for Physical and Emotional Harm § 29 (American Law Institute 2010).

[154] See *Wright*, San Diego Law Review 40 (2003), 1425 (1467–1478).

[155] See *Wright*, San Diego Law Review 40 (2003), 1425 (1434–1467); *id.*, University of Western Australia Law Review 49 (2022), 5 (31–55); *Puppe* (fn. 20 – Essays), p. 83 fn. 54; *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (325 et seq.).

[1] *Vogel* JZ 2012, 25.

[2] *Hörnle*, in: Tiedemann/Sieber/Satzger/Burchard/Brodowski (Hrsg.), Die Verfassung moderner Strafrechtspflege, Erinnerung an Joachim Vogel, 2016, S. 289 (293).

[3] Zur Kausalität vgl. die Nachweise bei *Wright/Puppe*, Chicago-Kent Law Review 91 (2016), 461 (488 f.); zu den Konkurrenzen vgl. *Grosse-Wilde*, ZStW 133 (2021), 60 (81 ff.).

[4] Um das zu demonstrieren, bildete er seinen viel belächelten Scharfrichterfall, *Engisch*, Die Kausalität als Merkmal der strafrechtlichen Tatbestände, 1991 (Nachdruck 2021), S. 15 f.

[5] *Engisch*, Vom Weltbild des Juristen, 2. Aufl. 1965, S. 132 ff. (insbesondere S. 139)

[6] *Puppe*, ZStW 92 (1980), 863 (875 f.).

betont, dass er sie von *Hart* und *Honoré* übernommen hat.[7] Diese haben diese Konzeption allerdings nicht rein durchgeführt, weil sie die Äquivalenz der Bedingungen ablehnten.[8]

In diesem Aufsatz von *Wright* fand ich allerdings noch einen weiteren Gedanken, der für mich sehr wichtig werden sollte: Um zivilrechtliche oder strafrechtliche Verantwortlichkeit eines Handelnden für einen Erfolg zu begründen, genügt es nicht, dass seine Handlung erstens sorgfaltswidrig und zweitens ursächlich für den Schaden war, es müssen vielmehr gerade diejenigen Eigenschaften der Täterhandlung, die sie sorgfaltswidrig machen, als notwendige Bestandteile in der hinreichenden Bedingung vorkommen.[9] Zwei Jahre später und lange bevor ich den Aufsatz von *Wright* entdeckte, habe ich dasselbe erkannt.[10] Aber ich ergänzte es dann noch durch ein weiteres: Es genügt auch nicht, dass die sorgfaltswidrigen Eigenschaften der Täterhandlung in der kausalen Erklärung des Erfolges notwendig sind, sie muss auch alle anderen Bedingungen der Sorgfaltspflicht, die der Täter verletzt hat, enthalten. Das nannte ich das Vollständigkeitserfordernis.[11] Schließlich müssen Handlung und Erfolg durch eine Kette unerlaubter Zustände verbunden sein. Geht der Kausalverlauf der von der sorgfaltswidrigen Handlung zum Erfolg führt, irgendwann in einen erlaubten Kausalverlauf über, so ist die Zurechnungsbeziehung unterbrochen. Das nannte ich das Kontinuitätserfordernis.[12]

Ich muss gestehen, dass es auch mir nicht gelungen ist, mithilfe dieser Ergänzungen und Präzisierungen die Kausalitätslehre von *Engisch* durchzusetzen, obwohl es einmal den Anschein hatte, dass das gelingen würde. Aber gegen die Bequemlichkeit der Wegdenkmethode ist eben einfach nichts auszurichten.[13] Es ist immerhin bemerkenswert, dass verschiedene Rechtswissenschaftler verschiedener Sprachen und verschiedener Rechtssysteme bei der Erforschung mancher Probleme zu denselben Ergebnissen kommen. Auf gewissen Gebieten lohnt es sich also durchaus, dass wir die englische und amerikanische Jurisprudenz studieren und es erweist sich, dass Engländer und Amerikaner durchaus bereit sind, mit uns zu reden, vorausgesetzt natürlich, dass wir es auf Englisch tun. Aber, um dieses Einleitungskapitel abzuschließen: Ich sehe darin keinerlei Grund oder Veranlassung unsere lebhaften und fruchtbaren wissenschaftlichen Beziehungen zu unseren südeuropäischen und südamerikanischen Kollegen zu vernachlässigen oder nicht stolz auf diese zu sein.

Ich stimme *Wright* darin zu, dass wir unsere Differenzen, die sich nur auf einzelne Fallkonstellationen beziehen, nicht zu sehr betonen sollten. Aber es liegt in der Natur der Sache, dass ich in meiner Antwort auf seinen Vortrag gerade auf die Differenzen und die etwa vorhandenen Missverständnisse eingehen muss. Das grundsätzliche Problem der Verursachung von mentalen Prozessen, genauer von Motivationsprozessen, insbesondere die Frage, ob diese Prozesse kausal determiniert sind oder nicht, kann ich an dieser Stelle natürlich nicht erschöpfend erörtern. Dazu also nur so viel: Ob wir menschliche Entschlüsse für vollständig determinierte physikalische Prozesse halten oder für eine freie Emanation der menschlichen Persönlichkeit ist eine Frage der Weltanschauung, also nicht allgemeingültig entscheidbar. Aber selbst wenn Motivationsprozesse vollständig durch allgemeine Gesetze determiniert sind, so kennen wir diese Gesetze nicht genau genug, um für einzelne Entschlüsse NESS-Bedingungen angeben zu können. Also müssen wir uns mit Plausibilitätserwägungen behelfen, etwa in dem Sinne: Wenn A dem B einen Grund dafür gegeben hat, X zu tun, und B danach X getan hat, dann wird der Ratschlag des A schon kausal für die Entscheidung des B gewesen sein. Ist ein solches Verfahren zur Feststellung von Motivationskausalität wirklich der Methode vorzuziehen, den B einfach zu fragen, ob der Ratschlag des A bei seiner Entscheidung eine Rolle gespielt hat?[14]

Auf ein Problem, das in *Wrights* Vortrag einen großen Raum einnimmt, muss ich deshalb eingehen, weil ich fürchte, dass er hier die Axt an die Wurzel der NESS-Theorie der Kausalität legt. Nur für die Formulierung allgemeiner Gesetze hält er das Erfordernis der Notwendigkeit eines Kausalfaktors für die hinreichende Minimalbedingung des Erfolges aufrecht. für die Anwendung des Kausalgesetzes auf den Einzelfall soll es aber genügen, dass der Kausalfaktor ein Element einer schwach hinreichenden Bedingung ist. Wenn dies allgemein gelten würde, könnte man jede beliebige Tatsache zur Ursache jedes beliebigen Erfolges erklären, denn wenn ich eine (stark oder auch schwach) hinreichende Bedingung habe und sie durch eine beliebige Tatsache anreichere, so erhalte ich wieder eine (schwach) hinreichende Bedingung.[15] *Wright* wendet denn auch diesen Gedanken nur auf den Fall an, dass ein quantifizierbarer Faktor im Einzelfall in einem höheren Maße gegeben ist, als für eine Mindestbedingung erforderlich. Wenn sich beispielsweise ein unachtsamer Arbeiter an einer Stanzmaschine einen Finger abklemmt, wobei die schwächste Krafteinstellung der Stanzmaschine dafür ausreichend ist, der Werkmeister aber kurz vor Beginn der Arbeit die Maschine auf eine höhere Kraft eingestellt hat, dann soll nach Ansicht von *Wright* der Werkmeister für den Verlust des Fingers ursächlich sein, obwohl seine Veränderung der Kraft der Maschine kein notwendiger Bestandteil der Mindestbedingung für den Schaden war. Das Problem sehe ich darin, dass man, sofern ein quantifizierbarer Kausalfaktor in einem höheren Maße gegeben ist als für die Mindestbedingung erforderlich, verschiedene Mindestbedingungen bilden kann, indem man je einen Teil dieses Quantums weglässt. So ist *Wright* denn auch in dem Fall verfahren, dass verschiedene Beteiligte je einen Teil eines Quantums verursacht haben, das höher ist als

[7] *Wright*, California Law Review 73 (1985), 1735 (1788 ff.).
[8] Zur Ideengeschichte des NESS-Tests *Moore*, ZfIStw 11/2022, 599 (bei Fn. 7); auch *Puppe*, RW 2001, 400 (402 ff.).
[9] *Wright*, California Law Review 73 (1985), 1735 (1741 ff., 1771 ff.
[10] *Puppe*, ZStW 99 (1987), 595 (601).
[11] *Puppe*, GA 2015, 203 (211 f.).
[12] *Puppe*, ZStW 99 (1987), 595 (610 f.).
[13] Vgl. mein Geleitwort zum Nachdruck von *Engisch* (Fn. 4), S. 10 f., und die Nachweise dort in Fn. 8.
[14] Vgl. dazu *Puppe*, in: Kindhäuser/Neumann/Paeffgen (Hrsg.), Nomos Kommentar, Strafgesetzbuch, Bd. 1, 5. Aufl. 2017, Vor § 13 Rn. 129 ff.
[15] Dazu *Puppe*, ZStW 92 (1980), 863 (866 f.).

erforderlich, wobei der Beitrag des einen Beteiligten für sich allein hinreichend war (2x), der des anderen Beteiligten aber nicht (1x). Nun kann er auch dadurch eine hinreichende Bedingung formulieren, dass er den Beitrag des zweiten Beteiligten mit der Hälfte des Beitrags des ersten Beteiligten zu 2x zusammenfasst. Ein Naturwissenschaftler hätte nichts dagegen, denn dem kommt es nicht darauf an, ob eine bestimmte Tatsache in eine NESS-Bedingung eingesetzt wird oder eine andere, sondern nur darauf, dass die eingesetzten Tatsachen wahr sind. Anders der Jurist, denn für ihn hängt alles davon ab, ob eine Tatsache, die von einer bestimmten Person verursacht worden ist, legitimerweise ihren Platz in der NESS-Bedingung eines Schadens findet oder nicht. Deshalb habe ich als Rechtsregel das Verbot aufgestellt, das von einer Person hergestellte hinreichende Quantum für die Verursachung eines Schadens in Teile aufzuspalten, um diese dann durch Einbeziehung eines nicht hinreichenden Quantums, das von einer anderen Person verursacht worden ist, zu einer NESS-Bedingung zu vervollständigen. Dies würde dazu führen, dass ein neben einem hinreichenden Quantum von einer anderen Person beigetragenes minimales Quantum die Kausalität dieser anderen Person für den Schaden begründen könnte.

Nun zu einem Punkt, der mir besonders wichtig ist. *Wright* hat das Vollständigkeitserfordernis sehr gut erklärt. Die tatsächlichen Voraussetzungen, unter denen eine bestimmte Sorgfaltspflicht gilt, geben den Schutzzweck dieser Sorgfaltspflicht an. Der Schutzzweck der Sorgfaltspflicht ist also nur dann betroffen, wenn diese Voraussetzungen der Sorgfaltspflicht nicht nur tatsächlich gegeben sind, sondern auch als notwendiges Element in der NESS-Bedingung vorkommen. Dieses Postulat will *Wright* nun anhand eines Falles widerlegen, den Herr *Grosse-Wilde* und ich in unserem letzten Aufsatz behandelt haben. Die an Deck eines Schiffes beförderten Schafe waren von einer Welle über Bord gespült worden. Es bestand eine seuchenpolizeiliche Vorschrift, lebende Tiere auf Schiffen in Einzelboxen zu befördern, damit sie sich nicht gegenseitig anstecken können. *Wright* will nun das Vollständigkeitserfordernis mit dem Argument widerlegen, dass der Schiffsführer für den Verlust der Schafe ja schon deshalb verantwortlich ist, weil er sie überhaupt nicht fixiert hat, obwohl hier das Vollständigkeitserfordernis in Bezug auf die angeführte seuchenpolizeiliche Sorgfaltspflicht nicht erfüllt ist. Das ist richtig, aber es gibt noch eine andere Sorgfaltspflicht für Kapitäne von Frachtschiffen, die Ladung auf Deck befördern. Sie müssen die Ladung an Deck so fixieren, dass sie nicht über Bord gewaschen werden kann. Auch diese Sorgfaltspflicht hatte der Schiffsführer im vorliegenden Fall offenbar verletzt und für diese Sorgfaltspflicht ist auch das Vollständigkeitserfordernis erfüllt.[16]

Ein weiteres Erfordernis der Kausalität, an dem mir gelegen ist, hat *Wright* zwar nicht kontrovers, aber allzu knapp behandelt: das Durchgängigkeitserfordernis. Es geht dabei um die Lösung von Fällen, die in der Literatur schon seit Langem behandelt, aber nur formelhaft gelöst werden. So behandelt schon *Engisch* den Fall des Patienten, der von einem Angreifer in Tötungsabsicht verletzt wurde, aber im Krankenhaus durch einen Brand stirbt.[17] Berühmt ist auch der Fall, dass der in Tötungsabsicht Verletzte auf der Fahrt mit einem Taxi zum Krankenhaus zu Tode kommt, weil der Taxifahrer einen schweren Fahrfehler begangen hat.[18] Das Durchgängigkeitserfordernis besagt, dass die Initiation eines Kausalverlaufs durch sorgfaltswidriges Verhalten eine Zurechnung des Erfolges nur dann begründet, wenn dessen Eintritt mit dem Fehlverhalten des Täters durch eine Kette unerlaubter Zustände kausal verknüpft ist. Das Problem entsteht daraus, dass man durch ein unerlaubtes Verhalten auch erlaubte Zustände verursachen kann, aus denen sich dann durch neues unerlaubtes Verhalten oder durch ein Unglück der Kausalprozess zu einem Schaden entwickelt.[19] Man spricht dann davon, dass sich nicht das unerlaubte Risiko der ersten Sorgfaltspflichtverletzung realisiert hat, sondern ein anderes.[20] Von dem Moment an, in dem der verletzte Patient das Krankenhaus betritt, werden die unerlaubten Folgen seiner Verletzung zur Erklärung seines Todes nicht mehr gebraucht. Gebraucht wird lediglich die Tatsache, dass er sich in dem Krankenhaus befunden hat, und das ist ein erlaubter Zustand. Zur Erklärung des Todes des Verletzten durch den Taxiunfall werden nicht mehr die unerlaubten Folgen der Verletzung benötigt, sondern nur die Tatsache, dass er durch die Verletzung veranlasst war, mit einem bestimmten Taxi eine bestimmte Strecke zu fahren, und das ist ein erlaubter Zustand.

[16] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (335).

[17] *Engisch*, Die Kausalität als Merkmal der strafrechtlichen Tatbestände, 1931, S. 51 ff.

[18] *Puppe/Grosse-Wilde*, University of Western Australia Law Review 49 (2022), 306 (339 Fn. 121).

[19] *Puppe* (Fn. 1), Vor § 13 Rn. 237 ff.; *dies.*, Geleitwort zum Neudruck von *Engisch*, Die Kausalität als Merkmal der strafrechtlichen Tatbestände, 2021, S. 19; *dies.*, ZStW 99 (1987), 595 (668 ff.).

[20] Statt vieler *Roxin/Greco*, Strafrecht, Allgemeiner Teil, Bd. 1, 5. Aufl. 2020, § 11 Rn. 80; *Eisele*, in: Schönke/Schröder, Strafgesetzbuch, Kommentar, 30. Aufl. 2019, Vor § 13 Rn. 95, 102 ff.