

**A CONTRACT LAW PERSPECTIVE ON MANIPULATIVE PERSUASIVE  
TECHNOLOGY LED BY AN ARTIFICIAL INTELLIGENCE**

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## **ABSTRACT**

Unperceived Artificial Intelligence (AI) can acquire users' data and find connections not visible to human beings, aiming at persuading them and resulting in Persuasive Technology (PT). PT can use computational manipulation (CM) to induce individuals to enter into a contract, affecting their decisional processes without their awareness and undermining their decision-making processes. Multiple institutions recognise that PT can manipulate individuals to an unprecedented degree via second-generation dark patterns such as the hypernudge, and that CM constitutes a risk for autonomy and other fundamental rights, such as the right to mental self-determination, which consists of the right to control the cognitive processes and the creation of thoughts. Contracts are already entered into due to CM, affecting individuals' mental self-determination. Contract law can protect individuals against many of the unlawful applications of PT in the contractual field. However, this thesis, using the English and Italian systems as case studies, argues that existing contract law doctrines fail to consider the kind of CM that affects the decisional processes of individuals without deception. CM can find and hypernudge a motive to contract, yet contemporary contract law considers the motive irrelevant. Therefore, significantly contributing to the knowledge in the field of CM and contract law, this thesis argues that the notion of consent in contract law, when an AI is involved in the manipulation process, should be reconsidered to include the motive. Moreover, this thesis argues that a contract resulting from CM should be invalid, in an intermediate form of invalidity between void and voidable, which this thesis identifies as para-void. If the motive becomes relevant and the contract resulting from CM is invalid, the right to mental self-determination can be protected by contract law against CM.

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## **AUTHOR'S DECLARATION**

I declare that this thesis is a presentation of original work, and I am the sole author. This work has not previously been presented for a degree or other qualification at this University or elsewhere. All sources are acknowledged as references.



# Chapter 1 Introduction

Artificial Intelligence (AI)<sup>1</sup> is increasingly attracting public attention.<sup>2</sup> The recent development of instruments such as ChatGPT-4<sup>3</sup> and the rapid evolution of AI, which occurred and are still occurring during the completion of this thesis, rendering it challenging, brought policymakers, academia, professionals, companies and the general public to express their interests, opinions, and concerns regarding the existence and the use of AI. Multiple bodies are attempting, in a race against the fast development speed of AI, to understand and regulate its use and to balance innovation and possible risks.<sup>4</sup> In the vast and newly emerged field of possible regulation of AI, this thesis focuses on the legal implications of using an AI system to manipulate an individual to enter into a contract and the possible regulation of this use through contract law.

An AI can acquire the user's data, find connections not visible by a human being, profile, and aim to persuade the users, resulting in Persuasive Technology (PT).<sup>5</sup> During the persuasive process, an AI-led PT can use computational manipulation (CM). Individuals have two decisional systems: one more primordial (System 1), which operates in an instinctual and subconscious way, and a second (System 2), more rational, with access to more cognitive resources.<sup>6</sup> CM relies on finding and using routes to affect System 1 without the individual's awareness, undermining their decision-making processes.<sup>7</sup>

CM is already used to induce individuals to enter into a contract, and multiple international, regional and local bodies<sup>8</sup> recognise that AI systems can use manipulation at an unprecedented degree<sup>9</sup> via the so-called second-generation dark patterns, such as the hypernudge.<sup>10</sup> According to these bodies, CM constitutes a risk for autonomy and different, overlapping fundamental rights such

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<sup>1</sup> For a definition, see 2.3.

<sup>2</sup> Kari Paul, 'Letter Signed by Elon Musk Demanding AI Research Pause Sparks Controversy' (www.theguardian.com, 1 April 2023) <www.theguardian.com/technology/2023/mar/31/ai-research-pause-elon-musk-chatgpt> accessed 9 November 2023; Ian Hogarth, 'We Must Slow Down the Race to God-Like AI' (ft.com, 13 April 2023) <www.ft.com/content/03895dc4-a3b7-481e-95cc-336a524f2ac2> accessed 9 November 2023.

<sup>3</sup> 'Open AI' <https://openai.com/blog/chatgpt> accessed 9 November 2023.

<sup>4</sup> See Chapter 4. See also Laura He, 'China Takes Major Step in Regulating Generative Ai Services Like ChatGPT' (CNN, 14 July 2023) <https://edition.cnn.com/2023/07/14/tech/china-ai-regulation-intlhnk/index.html> accessed 9 November 2023; The White House, 'Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence' (2023) <www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/> accessed 9 November 2023.

<sup>5</sup> See 2.2.

<sup>6</sup> See 2.4.3.

<sup>7</sup> See 3.2.

<sup>8</sup> See Chapter 4.

<sup>9</sup> See 4.2.

<sup>10</sup> See 3.2.2.

as privacy, self-determination, informational self-determination, and freedom of thought.<sup>11</sup> It has been suggested that the existence of CM requires a new fundamental right, the right to mental self-determination, which consists of the right to control the cognitive processes and the creation of thoughts.<sup>12</sup>

CM is already in use in the contractual field, has unprecedented power, and can potentially affect every contract in everyday life concluded by consumers, professionals or businesses, affecting the right to mental self-determination. Contract law is a direct shield of individuals, complementary to and coexistent with possible or existing legislative approaches to CM in data acquisition, consumer or AI-related legislation fields.<sup>13</sup> Therefore, this research considers in its main research question how a manipulative PT led by an AI system should be regulated by contract law.

Using the English and Italian legal systems as case studies,<sup>14</sup> this research argues that contract law, consent, and existing doctrines on defective consent can protect individuals against some forms of CM (CM1), ie those that operate with deception. However, existing doctrines fail to consider the kind of CM that operates without deception (CM2).<sup>15</sup> This thesis illustrates how a second-generation dark pattern can find and hypernudge a motive to contract, relying on an individual's vulnerabilities in decision-making in System 1. As argued in this thesis, the failure of existing contract law doctrines to protect individuals against CM2 in the two systems used as case studies resides in this kind of CM affecting the motive, which is not considered relevant in contract law.<sup>16</sup>

This research, significantly contributing to the knowledge in the field, argues in favour of recognising and protecting the right to mental self-determination against CM through consent and contract law. The conducted research demonstrates that, in the field of CM, existing contract law doctrines in the two systems used as case studies are inadequate concerning CM2. In order to achieve protection, suggesting a new doctrine against computational manipulation, this thesis argues in favour of reconsidering the notion of consent in the field of CM to include the motive, the road that caused an individual to be hypernudged into a contract and affected in their right to mental self-determination. Moreover, this research argues that a contract resulting from CM should be considered invalid, in an intermediate form of invalidity between void and voidable, which this thesis identifies as para-void.<sup>17</sup>

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<sup>11</sup> See 4.2.

<sup>12</sup> See 5.4.

<sup>13</sup> See Chapter 4 and Chapter 8.

<sup>14</sup> See 1.2. In this thesis, the term “English legal system” refers to the legal systems of England and Wales.

<sup>15</sup> See Chapter 6 and Chapter 7.

<sup>16</sup> See Chapter 8.

<sup>17</sup> See 8.2.3.

This thesis demonstrates that if the motive becomes relevant, and the contract is invalid if such technology is used, the right of mental self-determination can be protected through contract law against CM.

## 1.1 Research Context

The relationship between individuals and technology is evolving at previously unseen levels.<sup>18</sup> AI develops fast and is embedded in everyday technology, such as smartphones, apps, search engines and platforms, which have become almost essential yet also invisible and unperceived.<sup>19</sup> Hence, the users may not expect these instruments to be a possible threat to their decision-making processes and to be on the verge of losing their right to self-determine their thoughts.<sup>20</sup>

An AI can be used for different purposes, including persuasion and, for what is relevant to this analysis, manipulation. As demonstrated in this thesis, algorithmic-driven persuasive and manipulative techniques differ from any form of persuasion or manipulation humans can possibly exercise or be subject to. They differ in the quantity of information that can be acquired on the target and in the ability to identify links in the information. They differ in the ability to create a cognitive profile of an individual,<sup>21</sup> being able to identify not just personal information such as gender, race, age and place of residence but also habits, visited places, relationships, preferences and cognitive processes, knowing more about the individuals than the individuals themselves.<sup>22</sup> The knowledge acquired can be used by an AI to induce attitudes and behaviours, modifying the interactive experience according to the acquired cognitive profile of the individual. Algorithmic-driven persuasive and manipulative techniques are far from the gentle nudge theorised by Thaler and Sunstein.<sup>23</sup> A human can know, for example, that showing a picture of a baby will impact the decision-making processes of a part of the population and use this knowledge to induce, relying on possible emotions, individuals to buy products or services. An AI can know that a specific individual is

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<sup>18</sup> Deedra Vargo and others, 'Digital Technology Use During Covid-19 Pandemic: A Rapid Review' (2021) 3 *Human Behavior and Emerging Technologies* 13.

<sup>19</sup> Daniel Susser, 'Invisible Influence: Artificial Intelligence and the Ethics of Adaptive Choice Architectures' (Proceedings of the 2019 AAAI/ACM Conference on AI, Ethics, and Society, Honolulu 2019) <<https://dl.acm.org/doi/10.1145/3306618.3314286>> accessed 9 November 2023.

<sup>20</sup> Daniel Susser, Beate Roessler and Helen Nissenbaum, 'Technology, Autonomy, And Manipulation' (2019) 8 *Internet Policy Review* 1.

<sup>21</sup> See 2.5.

<sup>22</sup> Eliza Mik, 'Persuasive Technologies: From Loss of Privacy to Loss of Autonomy' in Kit Barker, Karen Fairweather and Ross Grantham (eds), *Private Law in the 21st Century* (Hart Studies in Private Law, 1 edn, Hart Publishing 2017) 370.

<sup>23</sup> Richard H Thaler, Cass R Sunstein, *Nudge: Improving Decisions About Health, Wealth, And Happiness* (Springer 2008); Cass R Sunstein, 'Fifty shades of Manipulation' (2015) *Journal of Behavioral Marketing* 213.

pregnant before their family<sup>24</sup> and which specific emotion they feel about the pregnancy from their activity, from explicit information such as social media posts to much more implicit information such as the length of time spent on a particular part of a seemingly irrelevant website. It can know how many times showing a picture of a baby brought that individual to purchase a product advertised with a picture of a baby and which other circumstances were present when the purchase was made. An AI can know which specific cognitive biases affect the decision-making processes of that individual, such as the impact of the opinion of others on the decision-making processes of that specific individual.<sup>25</sup> An AI can tirelessly and covertly acquire information on the user through interaction, adapt to their cognitive profile and tirelessly change and test configuration until the target is reached. Entire websites can be reconfigured according to the individual's cognitive profile to affect their decision-making processes in any field, from the purchase of a product to social and political choices.<sup>26</sup>

Recent technological developments, such as Chat GPT-4,<sup>27</sup> have attracted the media's attention to possible uncontrolled and potentially dangerous uses of AI.<sup>28</sup> Multiple bodies have started expressing concerns regarding PT's unprecedented ability to manipulate individuals via AI systems, with numerous suggestions that CM could undermine fundamental rights.<sup>29</sup>

In this context, this research focuses on CM used in contracting, on an issue that affects each individual in everyday life, and argues how to protect existing fundamental rights from a contract law perspective, answering the following research question and sub-questions:

- 1) How should contract law regulate Manipulative Persuasive Technology led by an Artificial Intelligence system?
  - a) What is Persuasive Technology, and how does it work?
  - b) How is Persuasive Technology able to undermine or manipulate the decision-making processes of individuals?

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<sup>24</sup> Kashmir Hill, 'How Target Figured Out a Teen Girl Was Pregnant Before Her Father Did' (forbes.com, 16 February 2012) <[www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/?sh=7981f1e66668](http://www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/?sh=7981f1e66668)> accessed 9 November 2023.

<sup>25</sup> See Chapter 3.

<sup>26</sup> Sunstein, 'Fifty shades of Manipulation' (n 23); Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Profile Books 2019).

See also Carole Cadwalladr and Emma Graham-Harrison, 'Revealed: 50 million Facebook Profiles Harvested for Cambridge Analytica in Major Data Breach' (www.theguardian.com, 17 March 2018) <[www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election](http://www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election)> accessed 9 November 2023.

<sup>27</sup> 'Open AI' (n 3); Philipp Hacker, Andreas Engel and Marco Mauer, 'Regulating ChatGPT and other Large Generative AI Models' (2023) arXiv:230202337 <<https://arxiv.org/abs/2302.02337>> accessed 9 November 2023.

<sup>28</sup> Alex Hern, 'Elon Musk Joins Call for Pause in Creation of Giant AI 'Digital Minds'' (The Guardian, 23 March 2023), <[www.theguardian.com/technology/2023/mar/29/elon-musk-joins-call-for-pause-in-creation-of-giant-ai-digital-minds](http://www.theguardian.com/technology/2023/mar/29/elon-musk-joins-call-for-pause-in-creation-of-giant-ai-digital-minds)> accessed 9 November 2023.

<sup>29</sup> See Chapter 4.

- c) To what extent (if any) does the ability set out in point b) undermine individual autonomy in decision-making?
- d) To what extent are existing English and Italian contract law doctrines able to address the issues set out in points b) and c)?
- e) How should the issues set out in points b) and c) be regulated by English and Italian contract law?

Given this context, the following section will underline the articulation and justification of the research question, subquestions, and methodology used in this research.

## **1.2 Articulation, Justification of the Research Questions, and Methodology**

In its main research question, this thesis focuses on how contract law should regulate the use of manipulative PT led by an AI system.

To answer the main research question, the first sub-question (a) to be addressed is what a manipulative PT is and how it works. In order to analyse the issue of manipulative PT from a legal perspective, it is necessary to scrutinise the context in which existing doctrines are called to operate. In order to do so, this analysis links contextual analysis to doctrinal analysis, following the law in context methodology.<sup>30</sup> As expressed by Twining, this methodology addresses the law not in isolation, as in black letter law books, but regarding a context, which is made of legal and non-legal aspects.<sup>31</sup> As expressed in a statement by Cambridge University Press concerning the series 'Law in Context':

The series is a vehicle for the publication of innovative monographs and texts that treat law and legal phenomena critically in their cultural, social, political, technological, environmental and economic contexts. A contextual approach involves treating legal subjects broadly, using materials from other humanities and social sciences, and from any other discipline that helps to explain the operation in practice of the particular legal field or legal phenomena under investigation.<sup>32</sup>

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<sup>30</sup> William Twining, *Law in Context Enlarging a Discipline* (OUP 1997); Ross Cranston, 'Law and Society: a Different Approach to Legal Education' (1978) 5 Monash UL Rev 54; Philip Selznick, 'Law in Context Revisited' (2003) 30 JLS 177.

<sup>31</sup> Twining (n 30) 37-62.

<sup>32</sup> Kenneth Armstrong, Maksymilian Del Mar, Sally Sheldon (eds), 'Law in Context'

<[www.cambridge.org/core/series/law-in-context/387EA14AA111E65AB0120DA893AFAFCB](http://www.cambridge.org/core/series/law-in-context/387EA14AA111E65AB0120DA893AFAFCB)> accessed 9 November 2023.

Therefore, according to this methodology, a legal phenomenon should be analysed not only through legal categories but also in its functioning and interaction with different fields. According to Twining, 'context' can have different meanings. It can refer, for example, to the point of view of the individuals affected by the rules, or it can mean that the findings of other disciplines should be taken into account, or it might refer to the policies underlining the rules to be considered.<sup>33</sup> It is relevant to this analysis that the law in context methodology allows the researcher to deal with a phenomenon's fast technological developments and interdisciplinary aspects.<sup>34</sup>

According to all the above, the choice of this methodology resides with the fact that, in dealing from a legal perspective with newly emerged technology (such as the use of AI for manipulation), referring to existing doctrines without considering the context in which they were developed and that in which they are possibly called to be applied might be inefficient. Identifying the possible relevance of a new phenomenon from a legal perspective might be challenging without contemplating how it operates in practice and without using an interdisciplinary approach. The new phenomenon (in this case, the use of AI for manipulation) might seem similar to a previous one. However, it might also differ in some fundamental aspects. Therefore, it is necessary to scrutinise every aspect of the new context to evaluate whether the new phenomenon suits existing legal categories. In this analysis, it has to be scrutinised, in a non-exhaustive list, what the technology is, what it can do, how AI can use manipulation, which impacts it might have on individuals, if the technology's abilities differ from human abilities, and if existing legal categories can address the abilities in the new context. For example, persuasion and manipulation have always existed, and doctrines and legislation in contract law have already considered their relevance.<sup>35</sup> However, existing doctrines and legislation were developed concerning a specific socio-techno-economic context characterised by human interaction. The new context is different. It concerns the interaction of humans with AI. This context was nonexistent when contract law doctrines were identified. Moreover, the context in which contract law doctrines were developed concerns humans' ability to impact the decision-making processes of individuals, while the new context concerns AI's ability to impact humans' decision-making processes. Furthermore, the theories on the functioning of the mind in relation to AI were not yet developed when existing contract law doctrines were theorised. Therefore, this analysis needs to scrutinise if and how AI-led persuasion and manipulation differ from any form of persuasion and manipulation that existed in the past and if and how AI-led persuasion and manipulation impact the minds of individuals differently from any impact already considered by the law.

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<sup>33</sup> Twining (n 30) 44.

<sup>34</sup> *ibid* 42.

<sup>35</sup> See Chapter 6 and Chapter 7.

According to all the above, for this analysis, it is insufficient to consider what the black letter law states to identify possible legal issues connected to CM and how to regulate them. Existing contract law doctrines did not deal with the AI context. They might not have dealt with nor be able to deal with the specific abilities of CM. It is, therefore, necessary to deeply consider the context in which the doctrines were developed and the context in which they are called to operate, contemplating the context in all its aspects, possible related fields and its practical impact on society with an interdisciplinary approach. This kind of analysis does not involve just legal reasoning, an analysis of theoretical approaches to an issue from a legal perspective, but also an evaluation of non-legal matters. As considered by Cranston, for example, company law requires knowledge of finance, social responsibility, market phenomena and government policy.<sup>36</sup> Similarly, contract law is not simply a matter of contract terms and their formulation, of object and consideration. It is also a matter of information, communication, negotiation, relationships, and economy.<sup>37</sup> Contract law has a socio-economic aspect, which refers to different fields, such as philosophy, psychology, and anthropology.<sup>38</sup> For what is more relevant to this analysis, contract law concerns the technology used in contracting, states of mind of the parties, persuasion and manipulation techniques. The contract's role as a social phenomenon, broader than the purely doctrinal structure, content, and impact, needs to be examined to have a more accurate understanding of the functions of contractual doctrines. In order to identify if an existing rule applies to the new CM context, it is necessary to identify the purpose of such a rule and then consider if the purpose can be reached in the new context. The purpose of legal rules can be better understood if the context in which they are called to operate is identified and if the context in which they were identified in the first place is scrutinised.

Therefore, applying the chosen methodology, this analysis primarily aims to describe the technology involved in CM to scrutinise how a piece of technology can use manipulation and its possible effect on the decision-making processes of individuals. Once the technology, its abilities and its use are understood, it will be possible to identify legal rules applicable to it, possible shortcomings, and possible solutions.

The concept of PT comprises elements from different fields, such as behaviours, persuasion, and reference to different kinds of technology, to be analysed with an interdisciplinary approach. By analysing existing literature from fields such as psychology and philosophy, this research will be able to define persuasion and distinguish the concept of persuasion from similar concepts such as coercion,

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<sup>36</sup> Cranston (n 30) 64.

<sup>37</sup> For the role of the context in contract law, see Richard Austen-Baker and Qi Zhou, *Contract in Context* (Routledge 2014); Andrew Stewart, Warren Swain and Karen Fairweather, *Contract Law: Principles and Context* (CUP 2019); Catherine Mitchell, *Vanishing Contract Law: Common Law in the Age of Contracts* (CUP 2022).

<sup>38</sup> Robert Ashford, 'Socio-economics: What is its Place in Law Practice' (1997) Wis LR 611; Jeffrey L Harrison, 'Teaching Contracts from a Socioeconomic Perspective' (2000) 44 Louis ULJ 1233.

deception and manipulation.<sup>39</sup> The concept of persuasion will be parted from the concept of *peithenanke*, which, in rhetoric, consists of winning over the audience using non-transparent methods and potential manipulation.<sup>40</sup> By referring to computer science literature, this research will identify which kinds of technologies can use persuasion and how the persuasion process works if used by AI systems.<sup>41</sup>

Sub-question b), to better define the context, underlines the need for this research to focus on PT's ability to undermine the decision-making processes of individuals and people's capacity for reflective and deliberative choice.<sup>42</sup> Different elements should be considered, always with an interdisciplinary approach. For example, how individuals' decision-making processes work and how they can be impaired will be scrutinised. As considered in Chapter 2, according to Kahneman, people have two decisional systems: one more primordial (System 1), which operates in an instinctual and subconscious way, and a second (System 2), more rational, with access to more cognitive resources.<sup>43</sup> As considered in Chapter 2, PT can utilise a nudge, a choice architecture that predictably modifies people's behaviour without forbidding any options or significantly changing their economic incentives.<sup>44</sup> A PT can use peripheral routes to affect System 1, directing the users to predetermined choices without their awareness and understanding.<sup>45</sup> As discussed in Chapter 3, nudges can be used in the digital world, resulting in dark patterns: 'practices in digital interfaces that steer, deceive, coerce, or manipulate consumers into making choices that often are not in their best interests'.<sup>46</sup> Analysing the mentioned concepts will help define the context better, funnelling this research towards possible misuse of PT and CM and their relevance from a legal perspective.

One further step will be necessary before moving to the legal analysis. Once the ability to affect the decision-making processes of individuals through technology is described, the research, answering sub-question c), will consider to what extent PT's ability to affect individuals' decision-making processes can undermine individual autonomy, precisely when an AI system is involved in the manipulative process. The analysis of the relevant literature will make apparent that PT's ability

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<sup>39</sup> See Susser in note 20 and Timotheus Kampik, Juan Carlos Nieves and Helena Lindgren, 'Coercion and Deception in Persuasive Technologies' in Robin Cohen, Murat Sensoy, Timothy J. Norman (eds), *Proceedings of the 20th International Trust Workshop* (CEUR-WS 2018).

<sup>40</sup> See 3.1.1.

<sup>41</sup> See Chapter 3 and Maurits Kaptein and others, 'Personalizing Persuasive Technologies: Explicit and Implicit Personalization Using Persuasion Profiles' (2015) 77 *International Journal of Human-Computer Studies* 38.

<sup>42</sup> Sunstein, 'Fifty Shades of Manipulation' (n 23).

<sup>43</sup> Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux 2017).

<sup>44</sup> Pelle Guldborg Hansen and Andreas Maaløe Jespersen, 'Nudge and the Manipulation of Choice: A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy' (2013) 4 *EJRR* 3; Stuart Mills, 'Personalized Nudging' (2020) *Behavioural Public Policy* 1.

<sup>45</sup> Cass R Sunstein, 'Nudges that Fail' (2017) 1 *Behavioural Public Policy* 4.

<sup>46</sup> EISMEA, 'Behavioural Study on Unfair Commercial Practices in the Digital Environment: Dark Patterns and Manipulative Personalisation. Final Report' (April 2022) 20.



to undermine the decision-making processes of individuals is considerably enhanced using compusuation,<sup>47</sup> the ability to persuade through AI, second-generation dark patterns and what Yeung defines as hypernudge, a Big Data decision-making technology able to channel the response and decisions of the user in pre-chosen directions.<sup>48</sup> In order to link the contextual analysis to a doctrinal analysis, this research will state in Chapter 3 if and how algorithmic-driven persuasion and manipulation techniques are different from any form of persuasion and manipulation individuals experienced in the past during an in-person persuasive process.<sup>49</sup>

Once the factual context is analysed, this research will explore, starting with Chapter 4, the legal perspective to identify possible legal issues and solutions. Following the law-in-context method, it will be necessary to identify possible applicable doctrines and legislation to the identified context and possible shortcomings of such doctrines and legislation if applied to the new context. To do so, the current legal discussion on manipulative PT and existing and future legislation in this field will be considered.

Moving from the legal background that will be identified in the field of CM, the theoretical foundation of the need for protection against this kind of technology will be scrutinised.<sup>50</sup> In this way, it will be possible to identify the purpose of possible doctrines and legislation regarding CM. Specifically, by analysing the existing legal discussion on CM, it will be possible to state that manipulative PT driven by an AI is at risk of misuse and that protection against it is needed to preserve an individual's autonomy in decision-making processes. Consequently, led by sub-question d), this research will analyse if existing contract law (including consumer law) doctrines can regulate the use of a PT able to undermine individuals' decision-making processes.

Regarding the choice of a contract law perspective, the possible issues connected to AI-driven manipulative PT might be analysed in different fields of law. For example, possible analysis fields include whether the Parliament should forbid CM, scrutinising if using CM could or should constitute a crime, or if a tort law perspective is preferable. Other possible perspectives include assessing liability and accountability for using such a technology. Mass manipulation and its impact on market regulation could also be relevant, as it could be a political perspective. Moreover, the perspective of applicable law and jurisdiction could be considered, or the perspective of a possible future law based on computation. All the mentioned fields, and numerous others, could be a possible choice. However,

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<sup>47</sup> Bernardine MC Atkinson, 'Captology: A Critical Review' in Wijnand A Ijsselsteinand others (eds), *Persuasive Technology. Persuasive 2006. Lecture Notes in Computer Science*, vol 3962 (Springer 2006) 177.

<sup>48</sup> See 3.2 and Karen Yeung, 'Hypernudge': Big Data as a Mode of Regulation by Design' (2017) 20 *Information, Communication & Society* 118, 122.

<sup>49</sup> Ulysses Pascal, *Personalizing Persuasion Architecture: Privacy Harms and Algorithmic News Media* (AAAI 2018); Jeremy Rose and Oskar MacGregor, 'The Architecture Of Algorithm-Driven Persuasion' (2021) 6 *Journal of Information Architecture* 1.

<sup>50</sup> See Chapter 5.

it would not be possible to consider every field in a single PhD project. This thesis chose one of the possible fields, contract law, leaving room for possible future studies.

The reason for choosing a contract law perspective is that contracting has a central role in modern life for consumers and commercial parties. Dark patterns and hypernudges are already in place in commerce, and contracts have already been entered into due to the use of such a technology. CM impacts everyday transactions and possibly every single individual and their rights in their everyday life. As deeply analysed in Chapter 4, the EU released legislation in the field of CM, which pertains to contract law.<sup>51</sup> Such legislation in the contract law field is evidence that CM is in place in contracts. Therefore, considering that CM is already used in contracting, it is relevant to consider the impact of CM from a contract law perspective, which coexists with and is complementary to any possible legislation on or related to CM, from data protection to specific fields such as consumers or AI-related fields. This perspective is still not thoroughly considered in the literature, which renders this analysis able to give a substantial and innovative contribution to the field.

In choosing this field, it has also been contemplated that CM, interfering with autonomy in the decision-making processes, impacts consent, and it does so at an unprecedented level.<sup>52</sup> Contract law relies on consent, on the freedom and autonomy of individuals to enter into transactions. As discussed in Chapter 6, consent is a way to protect autonomy in decision-making. Therefore, contract law, which relies on consent, is one of the possible ways to protect individuals' autonomy in decision-making processes against CM. A contract law perspective is consequently relevant and coherent. Therefore, this research focuses on whether contract law doctrines related to the presence of consent and those pertaining to its absence can protect individuals from CM, preserving autonomy in decision-making.

The choice of contract law is also coherent with the existing legal discussion regarding CM. As considered in Chapter 4, the EU has already identified contract law in the consumer field as a possible form of protection from CM. Such legislation is, consequently, part of the context to be considered. Therefore, a contract law perspective is coherent with the chosen methodology. Moreover, as discussed in Chapter 4, in the EU's attempt to legislate in this field, existing and prospective legislation leaves the protection against most manipulative practices to other legislation and, ultimately, to contract law. For example, the Unfair Commercial Practice Directive (UCPD), already considered by the EU as possible protection against CM,<sup>53</sup> is 'without prejudice to contract

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<sup>51</sup> Commission Notice – Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market [2021] OJ C526/1.

<sup>52</sup> See Chapter 4.

<sup>53</sup> See 4.3.2.

law and, in particular, to the rules of validity, formation or effect of a contract'.<sup>54</sup> Moreover, not every contract resulting from CM will involve a consumer and will be covered by existing or future legislation in the consumer field, leaving room for contract law application. Therefore, the existing legislative context justifies the analysis of CM through contract law. It shall also be considered that the mentioned future EU legislation will not apply in the UK, leaving possible protection to existing doctrines, including contract law doctrines.

Answering sub-question e), this analysis will consider how CM's ability differs from any form of manipulation already considered under existing contract law doctrines, being unprecedented, and how to regulate CM through contract law.<sup>55</sup> Legal issues connected to emerging technology, such as the one analysed in this project, need to be considered by adapting and possibly replacing existing doctrines after assessing if their aim is reachable in the emerging reality.<sup>56</sup> Hence, this research will consider how the unprecedented manipulative ability of PT should be regulated in contract law. This research will create a unique and original analysis of the specific contract law issues related to CM and possible solutions, thus significantly advancing the state of the art in this field.

In answering sub-questions d) and e), it shall be considered that CM is not linked to a specific territory or jurisdiction (operating via the Internet), nor is contract law. A legal system of reference is needed to analyse the law in context and to understand if and how existing principles in contract law can deal with CM. Contract law and its relation to CM can be considered under different legal systems. However, analysing every existing legal system in a PhD project would not be possible.

Consequently, this analysis will be conducted on two systems, one in common law and another in civil law, with two perspectives corresponding to inductive and deductive reasoning.<sup>57</sup> The first one is the English legal system, which contributed significantly to the evolution of the common law.<sup>58</sup> During the analysis, the Italian legal system will also be taken into account to consider a civil law and EU-related approach to contract law. The choice of an EU system is a consequence of EU regulation on CM.<sup>59</sup> In choosing to analyse CM from a contract law perspective in two systems, one in common

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<sup>54</sup> Council Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council ('Unfair Commercial Practices Directive') [2005] OJ L149/22, Art.3(2).

<sup>55</sup> See Chapter 6.

<sup>56</sup> Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (OUP 2017).

<sup>57</sup> Caslav Pejovic, 'Civil Law and Common Law: Two Different Paths Leading to the Same Goal' (2001) 155 *Poredbeno Pomorsko Pravo* 7, 820.

<sup>58</sup> William Searle Sir Holdsworth, *A history of English law* (3d ed, Methuen 1922); Theodore Frank Thomas Plucknett, *A Concise History of the Common Law* (The Lawbook Exchange, Ltd. 2001); Andrew Lewis and Michael Lobban (eds), *Law and history. Current Legal Issues* (OUP 2004).

<sup>59</sup> See 4.3.

law and one in civil law, it has been considered that a shared civil law root is present in contract law theories in common law and civil law,<sup>60</sup> different but related legal traditions which evolved differently.<sup>61</sup> Contemplating how two systems which share a common root but evolved differently could react to the same context arguably enhances the possibility of acquiring knowledge regarding a contract law perspective on CM.

Among the possible civil law and EU-related systems, the choice of the Italian legal system is a consequence of the fact that the civil law originated in Rome, Italy, from Roman Law.<sup>62</sup> The *Corpus Iuris Civilis* of Justinian was studied in Bologna, Italy, and laid the basis for the Napoleon Civil Code, enacted in 1804.<sup>63</sup> The Napoleon Code played a substantive role in developing civil law during the 19<sup>th</sup> Century, influencing the law of multiple European countries, including the Italian Civil Code.<sup>64</sup> The choice of the Italian system is also a consequence of the fact that I am a practising lawyer in Italy and a Turin Bar AI Commission member.

The two systems are used in this analysis as context to observe the law in action. They are case studies helpful to contemplate if and how a legal system, specifically contract law in that system, could react in practice to the context of CM.<sup>65</sup> Representative<sup>66</sup> case studies can help observe the law in action and theorise a hypothesis.<sup>67</sup> The two selected case studies are consequently used to scrutinise how existing contract law doctrines could react to CM, formulating a hypothesis and a possible solution to be used in subsequent contributions to the field in different systems. The two systems will be analysed separately in Chapters 6 and 7. It will be scrutinised if and how existing doctrines in each system could react to CM.

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<sup>60</sup>James Gordley, *The Philosophical Origins of Modern Contract Doctrine* (OUP 1993); Michael Lobban, 'Introduction. The Age of Freedom of Contract' in William Cornish and others (eds), *The Oxford History of the Laws of England*, vol 12 (OUP 2010). See Chapter 6 and Chapter 7.

<sup>61</sup>H Patrick Glenn, *Legal Traditions of the World: Sustainable Diversity in Law* (OUP 2014).

<sup>62</sup>Vincenzo Arangio-Ruiz, *Istituzioni di Diritto Romano* (Jovene 1927); George Mousourakis, *Roman law and the Origins of the Civil Law Tradition* (Springer 2015).

<sup>63</sup>Hans Julius Wolff, *Roman law: an Historical Introduction* (University of Oklahoma Press 1951). See also John Henry Merryman, 'The Italian Style I: Doctrine' (1965) 18 *Stan LR* 39, 41.

<sup>64</sup> Enrico Genta, Gian Savino Pene Vidari and Claudia De Benedetti, *Storia del Diritto Contemporaneo: Lezioni* (Giappichelli 2005).

<sup>65</sup> On case studies in a legal context, see Aikaterini Argyrou, 'Making the Case for Case Studies in Empirical Legal Research' (2017) 13 *Utrecht LR* 95. On case study methodology see Robert K. Yin, *Case Study Research: Design and Methods* (4th edn, Sage Publications 2009).

<sup>66</sup> For the role of the English Legal System in the development of common law, see Holdsworth (n 58). For the role of the Italian legal system in the development of civil law, see n 63.

<sup>67</sup> Arya Priya, 'Case Study Methodology of Qualitative Research: Key Attributes and Navigating the Conundrums in Its Application' (2021) 70 *Sociological Bulletin* 94.

It shall be considered that the simple fact of referring to two different systems requires taking into account some minor comparative aspects.<sup>68</sup> The analysis will describe doctrines on consent and the absence of consent in the English and Italian systems. The analysis will identify the doctrine's function in each system and the underlying principles to state if they apply to the context. In order to identify some principles that can apply to CM, the analysis will underline contract law approaches to CM in each system. As it will be considered during the analysis, sharing a common root, the two systems share similar approaches, and some conclusions are inferred from the similarities. According to Glenn<sup>69</sup> and Sacco,<sup>70</sup> one of the aims that comparative law has been focusing on in its evolution is to acquire knowledge. This research aims to acquire knowledge regarding if and how contract law principles, which are at the basis of existing doctrines, could protect individuals against CM. The mentioned knowledge will be acquired by contemplating how each system reacts, in contract law, to CM and by underlying similar functions of existing doctrines, approaches, shortcomings and possible solutions in the two systems.

This research does not aim to compare one country's law to another,<sup>71</sup> considering their possible incommensurability.<sup>72</sup> The main research question aims to understand how contract law should regulate Manipulative Persuasive Technology led by an Artificial Intelligence system, and this aim will be reached through case studies to observe the law in context. This analysis does not aim to state the differences or similarities of the single doctrines in the two systems related to consent or its absence, nor to explain one system through the other. The conducted analysis does not aim to contemplate, for example, if the doctrine of misrepresentation in the English system is comparable to the doctrine of *dolo* in the Italian System. The analysis has limited comparative aspects in observing the law in action on the two systems and in identifying the doctrines' function in the two systems and related principles to enable observations regarding the presence of the function in both systems, the limits of existing doctrines and consequences concerning CM.

With the aim of using the two systems as case studies to acquire knowledge, this analysis uses different methodologies in its limited comparative aspects. The first is a functional methodology, as

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<sup>68</sup> Hugh Collins, 'Methods and Aims of Comparative Contract Law' (1991) 11 OJLS 396; Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law* (3rd edn, OUP 1998); Ralf Michaels, 'The Functional Method of Comparative Law' in Mathias Reimann and Reinhard Zimmermann (eds), *The Oxford Handbook of Comparative Law* (OUP 2006); Ida Petretta, 'The Question of Comparison' (2020) 68 Am J Comp L 893.

<sup>69</sup> H Patrick Glenn, 'The Aims of Comparative Law' in Jan M Smits (ed), *Elgar Encyclopedia of Comparative Law* (2nd edn, Edward Elgar 2012).

<sup>70</sup> Rodolfo Sacco, 'Legal Formants: a Dynamic Approach to Comparative Law' (1991) 39 Am J Comp L 1.

<sup>71</sup> Edward J Eberle, 'The Methodology of Comparative Law' (2011) 16 Roger Williams UL Rev 51, 61.

<sup>72</sup> H Patrick Glenn, 'Are Legal Traditions Incommensurable' (2001) 49 Am J Comp L 133; George A Bermann and others, 'Comparative Law: Problems and Prospects' (2010) 26 Am U Int'l LR 935; CJW Baaij, 'Confronting the Conjecture of Cultural Incommensurability in Comparative Law' (2014) 25 King's Law Journal 287.

identified by Zweigert and Kötz.<sup>73</sup> This methodology allows the researcher to identify the function of the law in a specific matter. Pound defined a functional approach, stating that '(...) what I have in mind particularly is study of how the same thing may be brought about, the same problem may be met by one legal institution or doctrine or precept in one body of law and by another and quite different institution or doctrine or precept in another'.<sup>74</sup>

The approach of Zweigert and Kötz has been reconsidered by Michaels, who underlines in their work how functionalism cannot be identified with a single concept of function but with different functions: epistemological (understanding law), comparative (function as *tertium comparationis*), presumptive (*praesumptio similitudinis*), formalising (building a system), evaluative (determining the better law), universalising (unifying law) and critical (critique of legal orders).<sup>75</sup> This analysis primarily uses a functional method to understand the law, evaluate it and build a possible response. However, according to its main research question, this analysis does not intend to identify the function of a doctrine compared to the function of similar doctrines in the other system. Moreover, this analysis does not aim to understand if the legal responses to CM in the two systems could be harmonised. The analysis is conducted to understand each chosen system's response to the given context and identify some principles that can be used to build possible protection in each given system.

In order to reach the mentioned purpose, another methodology used in this analysis is the law in context methodology, which has been used in comparative law and aims as the functional methodology to understand the law better.<sup>76</sup> According to Van Hoecke, 'Putting law in context aims at understanding the law, as a foreigner to that legal system and, hence, explaining why the law is as it is. Inevitably, this implies empirical observation.'<sup>77</sup> Therefore, this thesis chooses to observe the two systems to understand the law and if it can apply to the new context. The observation is conducted to understand why the law reacts to some issues in that specific way, observing it in its context to contemplate the reasons for its existence and if its aim can be achieved in the new context, underlining possible similarities between the systems to infer knowledge.

The historical methodology has also been used as part of the law-in-context methodology. As considered above, the two systems present a shared route in contract law.<sup>78</sup> Understanding legal principles needs to scrutinise the origin and the evolution of such principles:

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<sup>73</sup> Zweigert and others (n 68); Michele Graziadei, 'Legal Transplants and the Frontiers of Legal Knowledge' (2009) 10 *Theoretical Inquiries in Law* 723.

<sup>74</sup> Roscoe Pound, 'What May We Expect From Comparative Law?' (1936) 22 *ABA Journal* 56, 57.

<sup>75</sup> Michaels (n 68).

<sup>76</sup> Mark Van Hoecke, 'Methodology of Comparative Legal Research' (2015) *Law and Method* 1; Sacco, 'Legal Formants' (n 70).

<sup>77</sup> Van Hoecke (n 76) 17.

<sup>78</sup> See n 60.

Historical comparisons may not only explain the origins and reasons for the law as it is today in that society, in some cases they may reveal that similar rules or approaches to law we find in one legal system have been present in another in the past, whereas the current law or views in the latter are different today.<sup>79</sup>

The conducted analysis has, therefore, some limited comparative aspects in terms of identifying the function of the doctrines in the two systems, the history of those doctrines and the analysis of the doctrines in context. However, the comparative aspect is limited.

According to all the above, the choice made in this project is to consider the context of CM in contract law and through the lenses of two case studies, in two legal traditions, with an EU and a non-EU perspective. The chosen methodology will allow this research to state how contract law should regulate Manipulative Persuasive Technology led by an Artificial Intelligence system.

In order to identify a possible regulation of CM in contract law, this thesis can be conceptually divided into three macro sections. The first one, corresponding to Chapters 2 and 3, will identify and evaluate non-legal aspects of the context, and precisely what this technology is, how it operates and the consequences of its use, specifically its impact on autonomy in decision-making. Once the non-legal aspects have been identified, the analysis will shift in the second macro section to legal aspects in Chapters 4, 5, 6 and 7, identifying existing responses to CM at a supranational level and then at a national level, focusing on contract law in the English and Italian systems. Having as a context the non-legal and legal aspects of CM, the third macro section of this thesis will focus on the answer to the main research question, arguing in Chapter 8 how contract law should regulate manipulative technologies led by an AI system through a new doctrine of computational manipulation.

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<sup>79</sup> Van Hoecke (n 76) 19.

# Chapter 2 What is Persuasive Technology

## 2.1 Captology

While attending the Conference on Human Factors in Computing Systems held in 1997 (CHI97), a group of participants focused on studying the interaction between persuasion and computers.<sup>80</sup> This conference can be considered the origin of captology.<sup>81</sup> The term, coined by a behavioural psychologist, Fogg, is a portmanteau for 'Computers As Persuasive Technology' and refers to studies regarding the area in which computing, operating systems, and persuasion intersect.<sup>82</sup> Later, in 1998, during the conference CHI98, Fogg, Bedichevsky and Tester led a discussion regarding this newly emerged area of research, defining the future of captology.<sup>83</sup> Three groups were created during the conference: 'Applications', 'Ethics', and 'Theories and Frameworks'.<sup>84</sup>

The Applications Group focused on domains in which persuasion could have been applied to persuasive tools (for instance, a cosmetic mirror that simulates how skin will deteriorate after years of sun damage).<sup>85</sup> The Ethics Group named 'good' or 'bad' applications of persuasion to technology and then identified three areas of concern: Intent, Autonomy, and Target Populations.<sup>86</sup> The Theories and Frameworks Group considered that captology could benefit from adapting frameworks from other domains such as rhetoric,<sup>87</sup> anthropology and credibility.<sup>88</sup>

Captology, starting from these three groups, evolved and became structured, being a scientific literature object.<sup>89</sup> Nowadays, Stanford University has a dedicated 'Behaviour Design Lab' led by Fogg.<sup>90</sup>

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<sup>80</sup> CHI, 'Conference on Human Factors in Computing Systems' (dl.acm.org, March 22-27, 1997) <<https://dl.acm.org/doi/proceedings/10.1145/1120212>> accessed 9 November 2023.

<sup>81</sup> Brian J Fogg, 'Persuasive Computers: Perspectives and Research Directions' (Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Los Angeles, April 1998) <<https://dl.acm.org/doi/10.1145/274644.274677>> accessed 9 November 2023.

<sup>82</sup> *ibid.*

<sup>83</sup> Fogg, Bedichevsky and Tester (n 5).

<sup>84</sup> *ibid.*

<sup>85</sup> *ibid.*

<sup>86</sup> *ibid.*

<sup>87</sup> See 2.4.2.

<sup>88</sup> Fogg, Bedichevsky and Tester (n 5).

<sup>89</sup> NA Abdullah and others, 'Perceived Captology Strategies in Mobile Applications: Do they Differ?' (2018) 13 Journal of Engineering and Applied Sciences 7019; Atkinson, 'Captology: A Critical Review' (n 47); Boldur E Barbat, 'Agent-Oriented Captology for Anthropocentric Systems' (2001) 34 IFAC Proceedings Volumes 217; Lynn Greiner, 'Captology and the Friendly Art of Persuasion' (2009) 13 NetWorker (Association for Computing Machinery) 10.

<sup>90</sup> Stanford University, 'Behaviour Design Lab' <<https://captology.stanford.edu>> accessed 9 November 2023.



## 2.2 Persuasive Technology

Captology studies how a computer can use persuasion in interacting with humans, resulting in PT. It is necessary to define, therefore, what PT is. In its plural form ('persuasive technologies'), the term was used for the first time in 1998 when Fogg described PTs as 'interactive technologies that change attitudes, beliefs, and behaviours'.<sup>91</sup> Later, Fogg referred to PT as an 'interactive computing system designed to change people's attitudes or behaviours' without coercion or deception.<sup>92</sup> The definition has been enhanced by Oinas-Kukkonen and Harjuman, who described PT as a 'computerised software or information system designed to reinforce, change or shape attitudes or behaviours or both without using coercion or deception'.<sup>93</sup>

In the first definitions of PT, a focus can be noticed on these technologies' positive aspects and the absence of coercion or deception. Nevertheless, Kampik and others<sup>94</sup> underlined that technology's persuasive power is perceived as dangerous in society because it is associated with coercion and deception, notwithstanding their explicit exclusion from early definitions. They and others raised, therefore, ethical concerns regarding PT.<sup>95</sup> Thus, a new definition has been conceived to embrace PT's negative aspects, considering it as '...an information system that proactively affects human behaviour, in or against the interests of its users'.<sup>96</sup> This definition embodies an influence that aims at interests contrary to its users and considers that PT must proactively persuade. Technology must play a crucial role; the use of technology must cause the behaviour-affecting result.<sup>97</sup> According to this definition, the technology used as PT shall have the intention to change someone's behaviour. However, considering that machines do not have intentions,<sup>98</sup> technology is to be considered PT only when those who created or used the technology did so with the intent to affect and change human behaviours and thus persuade.

Fogg considered in his first definition just a change in the behaviour. However, the subsequent attempt to define PT, with the use of the word 'affects', enlarges PT's abilities to embrace the vast

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<sup>91</sup> Brian J Fogg, Daniel Bedichevsky and Jason Tester, 'Persuasive Computing' (1998) 30 ACM SIGCHI Bulletin 71, 71.

<sup>92</sup> Brian J Fogg, *Persuasive Technology: Using Computers to Change What We Think and Do* (Morgan Kaufmann Publishers 2003) 1.

<sup>93</sup> Harri Oinas-Kukkonen and Marja Harjuman, 'Towards Deeper Understanding of Persuasion in Software and Information Systems' in *Proceedings of the 1st International Conference on Advances in Computer-Human Interaction* (IEEE 2008) 202.

<sup>94</sup> Kampik, Nieves and Lindgren (n 39).

<sup>95</sup> Daniel Berdichevsky and Erik Neuenschwander, 'Toward an Ethics of Persuasive Technology' (1999) 42 Communications of the ACM 51.

<sup>96</sup> Kampik, Nieves and Lidgren (n 39) 5.

<sup>97</sup> *ibid.*

<sup>98</sup> Seth Oranburg, 'Machines and Contractual Intent' (2022) Duquesne University School of Law Research Paper Forthcoming <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4002076](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4002076)> accessed 9 November 2023.

complexity of the concept of persuasion, which will be analysed in the following sections, and that includes a behavioural change and, as well, shaping and reinforcing an existing behaviour.<sup>99</sup>

Atkinson underlined that, in Fogg's opinion, technology could persuade only by following its creator's intent (Macropersuasion), using single persuasions (Micropersuasions) to achieve a macro target.<sup>100</sup> However, since the first definition of PT, technology has consistently evolved, now able to follow a scheme directed by its creator and act outside of a scheme with autonomy.<sup>101</sup> In his critical review of Fogg's work, Atkinson accordingly identifies a new ability of PT, the *compusuation*, which can be defined as the ability to persuade using computational power, even outside a predefined scheme.<sup>102</sup> Therefore, the abovementioned new ability extends the concept of PT, including an autonomous persuasion, led directly by the PT's computational, proactive power, as it happens with AI.<sup>103</sup>

According to all the above, PT can be defined, combining the previous definitions, as a technology that proactively influences human attitudes, behaviours, or both, changing, shaping, or reinforcing them, in or against its users' interests.

### 2.3 Technology

To further analyse PT, it is necessary to identify what technology is and what persuasion implies. This section will focus on the first term and the next on the meaning of persuasion.

According to the Oxford Dictionary, technology means:

1. The application of scientific knowledge for practical purposes, especially in industry.
2. A piece of machinery or equipment designed using technology.<sup>104</sup>

Technology is, therefore, both the application of scientific knowledge and the result of this application. The term comes from the Greek word *tekhнологia*, composed of two words: 1) *techne*, which means art, skill, and means by which a thing is gained, and 2) *logos*, which means 'word', how thought is expressed.<sup>105</sup> Therefore, technology is a way of practically expressing and applying knowledge to something. In the case of PT, technology is applied to persuade.

Accordingly, some elements characterising PT can be determined. It must a) be able to be proactive and interact, b) be able to persuade, and c) have been created to persuade via interaction. The first element is easily understandable; PT should relate directly to a human being interacting with

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<sup>99</sup> Gerald R Miller and Michael Burgoon, *New Techniques of Persuasion* (Harper & Row 1973).

<sup>100</sup> Atkinson, 'Captology' (n 89).

<sup>101</sup> Yavar Bathaee, 'The Artificial Intelligence Black Box and the Failure of Intent and Causation' (2017) 31 Harv JL & Tech 889; Yavar Bathaee, 'Artificial Intelligence Opinion Liability' (2020) 35 Berkeley Tech LJ 113.

<sup>102</sup> Atkinson, 'Captology' (n 89) 117.

<sup>103</sup> See 3.2.

<sup>104</sup> 'Technology' in Angus Stevenson (ed), *Oxford Dictionary of English* (CUP 2010).

<sup>105</sup> 'Online Etymology Dictionary' <[www.etymonline.com/word/technology](http://www.etymonline.com/word/technology)> accessed 9 November 2023.

it. The second element will be analysed later in this thesis.<sup>106</sup> The third element is the key to a definition. In whichever form it may come, PT is a technology whose purpose is to cause the persuasion of someone when it is designed or used. Therefore, the persuasive nature of this technology does not reside with the object. If technology is classified as persuasive, it depends on the context and intent with which it was created, distributed, or adopted.

According to Fogg, PT can be classified according to two different intents.<sup>107</sup> The first one is endogenous; the technology was explicitly created to persuade. An example can be a video game designed to shape healthy habits. The second is exogenous; someone provides another individual with technology to persuade. For example, an individual gives a Kindle to another to persuade them to read. There is also a third kind of intent, autogenous, which occurs when a person adopts technology to change their behaviour or attitude. An example is downloading a calorie counter app to eat less. These categories do not exclude each other, and PT may fall into multiple categories.

As considered above, technology shall aim at persuading. It is relevant, consequently, to scrutinise how it can do it. Fogg states that persuasion can be achieved with technology acting as a tool, a medium, or a social actor.<sup>108</sup> He calls it the functional triad, using categories studied in computer/human interaction.<sup>109</sup>

- As tools, PT increases people's ability to perform a target behaviour by making it more manageable.
- As media, PT uses interactivity and narrative to persuade via experiences, video, or audio.
- As a social actor, PT adopts animated characteristics, plays animated roles, or follows social rules or dynamics.

A tool helps to perform a task and can be persuasive in multiple, non-direct ways. First, reducing the difficulty and diminishing a task's barrier enhances a wanted behaviour's likelihood.<sup>110</sup> The photo camera of a smartphone is an example; it enhances the possibility of recording moments of an individual's life. A tool can then increase self-efficiency, making a task seem more achievable. Recording a homemade professional video with visual special effects seemed impossible some time ago. However, nowadays, it is feasible. A tool can also provide information quickly, improving the ability and the likelihood of making decisions. Google is the perfect example.

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<sup>106</sup> See 2.4.

<sup>107</sup> Fogg, *Persuasive technology* (n 92) 17.

<sup>108</sup> *ibid* 23.

<sup>109</sup> Aaron Marcus, 'Human Communications Issues in Advanced UIS' (1993) 36 *Communications of the ACM* 100; P Patton, 'User Interface Design: Making Metaphors' (1993) 40 *ID Magazine* 62.

<sup>110</sup> William Samuelson and Richard Zeckhauser, 'Status Quo Bias in Decision Making' (1988) 1 *Journal of Risk and Uncertainty* 7.

Technology that acts as a media persuades differently, providing experiences. It can be imagined, for example, a multisensorial experience, visual and emotional, accompanied by suitable music. Fogg describes as an example an HIV Roulette, a computer simulation that allows users to make hypothetical choices about sexual behaviour and experience the possibility and the consequences of contracting HIV.<sup>111</sup>

The third element of the triad is technology behaving as a social actor. It can have human (or pet) features, act following social rules, take turns, agree, or thank. An example could be a robot with human features, voice, and movements, which interacts by asking permission or simulating feelings like compassion or happiness. ChatGPT is the perfect example of technology's fast development and accuracy in imitating human behaviours.<sup>112</sup>

Once it has been identified how a PT could persuade, it must be considered that PT can persuade at an individual and a group level. Therefore, it might aim to change family behaviour (such as watching less television), working behaviour (smart working), or society's behaviour (such as using green transportation).

As underlined above, the purpose qualifies the technology as persuasive, not the technology itself. Therefore, there could be very different kinds of technology aiming at persuading. Elementary technologies, with simple features and abilities (for example, a calorie counter). Alternatively, more complex technologies could be considered based on more complex algorithms (like a notebook or a smartphone). Finally, a PT can be led by an AI.<sup>113</sup>

Many attempts to define an AI have been made.<sup>114</sup> A very recent definition can be found in the 'Proposal for a Regulation laid down harmonised rules on artificial intelligence', the so-called AIA, as amended by the European Parliament.<sup>115</sup> The proposal is the first organic attempt to legislate in the field of AI at the EU level. It defines AI in Art. 3 (1), stating that an

artificial intelligence system' (AI system) means a machine-based system that is designed to operate with varying levels of autonomy and that can, for explicit or implicit objectives,

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<sup>111</sup> Brian J Fogg, 'Persuasive Technologies' (1999) 42 Communications of the ACM 26.

<sup>112</sup> See 'Open AI' (n 3).

<sup>113</sup> See 2.6 for examples.

<sup>114</sup> Sofia Samoili and others, *AI Watch. Defining Artificial Intelligence 2.0. Towards an Operational Definition and Taxonomy of AI for the AI Landscape EUR 30873 EN* (Publications Office of the European Union, Luxembourg, 2021); Matt O'Shaughnessy, 'One of the Biggest Problems in Regulating AI Is Agreeing on a Definition' (carnegieendowment.org, 6 October 2022) <<https://carnegieendowment.org/2022/10/06/one-of-biggest-problems-in-regulating-ai-is-agreeing-on-definition-pub-88100>> accessed 9 November 2023.

<sup>115</sup> Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts' (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD)).

generate outputs such as predictions, recommendations, or decisions, that influence physical or virtual environments.

The High-Level Expert Group On Artificial Intelligence defined it, instead, as follows:

Artificial intelligence (AI) refers to systems designed by humans that, given a complex goal, act in the physical or digital world by perceiving their environment, interpreting the collected structured or unstructured data, reasoning on the knowledge derived from this data and deciding the best action(s) to take (according to predefined parameters) to achieve the given goal. AI systems can also be designed to learn to adapt their behaviour by analysing how the environment is affected by their previous actions. As a scientific discipline, AI includes several approaches and techniques, such as machine learning (of which deep learning and reinforcement learning are specific examples), machine reasoning (which includes planning, scheduling, knowledge representation and reasoning, search, and optimisation), and robotics (which includes control, perception, sensors and actuators, as well as the integration of all other techniques into cyber-physical systems).<sup>116</sup>

The UK, in its White Paper on Artificial Intelligence, focused on the abilities of AI, stating:

(...) we have defined AI by reference to the 2 characteristics that generate the need for a bespoke regulatory response.

- The 'adaptivity' of AI can make it difficult to explain the intent or logic of the system's outcomes:

AI systems are 'trained' – once or continually – and operate by inferring patterns and connections in data which are often not easily discernible to humans.

Through such training, AI systems often develop the ability to perform new forms of inference not directly envisioned by their human programmers.

- The 'autonomy' of AI can make it difficult to assign responsibility for outcomes:

Some AI systems can make decisions without the express intent or ongoing control of a human.<sup>117</sup>

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<sup>116</sup> High-Level Expert Group on Artificial Intelligence 'A Definition of AI: Main Capabilities and Scientific Disciplines' (18 December 2018) 7.

<sup>117</sup> Secretary of State for Science, Innovation and Technology, 'A Pro-innovation Approach to AI Regulation' (Cmd 815).

Therefore, there is no commonly agreed-upon definition of AI at the moment. Despite the possible (or impossible) definition of an AI, what is relevant for this analysis is that an AI can analyse vast amounts of data, like videos, images, words, and facial expressions, compare them, find patterns, recognise emotions, and interact according to the analysis results.<sup>118</sup> Therefore, an AI embedded in PT can persuade at a different level, distinct from other kinds of technology or the methods of a human persuader.<sup>119</sup>

## 2.4 Persuasion

In order to identify what PT is and how it works, it is necessary to analyse its other element: persuasion. According to the Oxford Dictionary, persuasion means 'the act of persuading someone to do something or to believe something', and to persuade means 'to induce (someone) to do something through reasoning or argument'.<sup>120</sup> In Campbell's opinion, persuasion must be parted from conviction. The latter is the rhetorical instrument that aims to influence the understanding of something. Instead, persuasion affects the will and implies emotions.<sup>121</sup>

The concept of persuasion has been studied broadly. In order to understand it, it is essential to analyse the characteristics of communication. Persuasion happens through communication.

### 2.4.1 Communication

The brain does not hear sounds nor see the light; it interprets electric signals. Individuals do not perceive the world but only their best guesses of the world. Seth explained this concept in his work<sup>122</sup> and later in his 2017 Ted Talk.<sup>123</sup> The brain produces a sort of controlled hallucination.<sup>124</sup> This concept can be better understood by analysing one of the communication principles: 'The Map is not the territory', identified for the first time by Korzybski.<sup>125</sup> Imagine multiple individuals being asked to draw a city map. Someone will measure the streets centimetre by centimetre and represent every element they see on paper. Someone else will sketch the corners of the houses and some squares, with

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<sup>118</sup> Hakan Boz and Utku Kose, 'Emotion Extraction from Facial Expressions by Using Artificial Intelligence Techniques' (2018) 9 BRAIN Broad Research in Artificial Intelligence and Neuroscience 5.

<sup>119</sup> See 3.2.

<sup>120</sup> 'Persuasion' and 'Persuade' in Angus Stevenson (ed), *Oxford Dictionary of English* (CUP 2010).

<sup>121</sup> George Campbell, *The Philosophy of Rhetoric* (SIU Press 1988).

<sup>122</sup> Anil Seth, 'Preface: The Brain as a Prediction Machine' in Dina Mendonça, Manuel Curado and Steven S. Gouveia (eds), *The Philosophy and Science of Predictive Processing* (Bloomsbury Academic 2020).

<sup>123</sup> Anil Seth, 'Your brain hallucinates your conscious reality' <[www.youtube.com/watch?v=lyu7v7nWzfo&ab\\_channel=TED](https://www.youtube.com/watch?v=lyu7v7nWzfo&ab_channel=TED) 18/09/2017> accessed 9 November 2023.

<sup>124</sup> An experiment has been conducted on this topic in VR: Keisuke Suzuki and others, 'The Hallucination Machine: A Deep-Dream VR platform for Studying the Phenomenology of Visual Hallucinations' (2017) bioRxiv <[www.biorxiv.org/content/10.1101/213751v1](https://www.biorxiv.org/content/10.1101/213751v1)> accessed 9 November 2023.

<sup>125</sup> Alfred Korzybski, *Science and Sanity* (Institute of General Semantics 1933).

some reference points and some main roads. What is relevant to a person enough to be put on the map is a selection of what that person sees. The same mechanism applies to every information acquisition stage. Individuals select information, and each individual makes this selection differently. The individual differences in the selection process are the basis of profiling<sup>126</sup> and one of the keys to persuasion. The following sections will analyse the elements on which the selection happens.

#### 2.4.1.1 Cognitive styles

At the beginning of his study in 1921, it was already clear to Jung that individuals could be analysed and divided into different psychological types.<sup>127</sup> In 1967, Lilly used *metaprogramming* for the first time, referring to what he called The Human Biocomputer.<sup>128</sup> The idea developed from their theories is that individuals acquire and analyse information differently but in an understandable and observable way. According to Lilly, individuals have an internal program, with meta programs, which allows them to receive information from the outside and categorises them in their inner world.

This conception of the human mind evolved with Sternberg and others, allowing them to identify different cognitive styles<sup>129</sup> and, according to Gardner, multiple kinds of intelligence.<sup>130</sup> For example, some people think and acquire information in global terms through macro elements. Others are analytic, focusing on details before seeing the frame. Some people are field-independent, and others cannot part the information received from the field in which they found it (field-dependent). The cognitive styles might change for a single individual according to the context.

Moving from these premises, Grinder and Bandler concentrated on how acquiring information can be categorised according to individuals' senses and the words they prefer, creating the concept of Neuro-Linguistic Programming (NLP).<sup>131</sup> According to them, some people prefer to acquire information in visual form, others in auditory form, and the third category in a kinaesthetic way, by touching, moving, or via sensations. According to these preferences, individuals use different words to describe their reality. A situation, for example, for someone can be described as bright or dark (visual field), while for some others, it sounds good (auditory field) or it is heavy (kinaesthetic field).

It can be understood, therefore, the reason why the map is not the territory. Individuals' internal map is a program with metaprograms, a personal hallucination created according to their

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<sup>126</sup> See 2.5.

<sup>127</sup> Herbert Read, Michael Fordham, and Gerhard Adler (eds), *Collected Works of CG Jung*, Vol 6 (Princeton University Press 2014).

<sup>128</sup> John C Lilly, *The Human Biocomputer: Programming and Metaprogramming* (Julian Press 1967).

<sup>129</sup> Li-Fang Zhang and others, 'Thinking Styles Across Cultures: Their relationships with Student Learning, Perspectives on Thinking' in Robert J Sternberg and Li-Fang Zhang (eds), *Perspectives on thinking, learning, and cognitive styles* (Lawrence Erlbaum Associates Publishers 2001).

<sup>130</sup> Howard E Gardner, *Frames of mind: The Theory of Multiple Intelligences* (Hachette 2011).

<sup>131</sup> Richard Bandler and John Grinder, *The Structure of Magic* (Science and Behavior Books 1975).

cognitive styles. This map can be understood and used to send a persuasive message via PT in a structured way to enhance the possibility of acquiring that message. The following section will analyse what a message is.

#### 2.4.1.2 *The message*

De Saussure, the father of semiology, explained in his work the evolution of the language, which he defined as a structured system of signs in relation to each other following a structure.<sup>132</sup> When individuals send or receive a piece of information, such as a persuasive message, they do so via signs composed of two elements: 1) a signifier, a linguistic form (eg, a word) to which individuals attribute 2) a signified (the meaning of the form). The word 'Open', for example, written on a shop's door, is made of the signifier open (the word) and the meaning of it (the shop is opened). A sign shall have both a signifier and a signified. Therefore, a sign is a recognisable combination of them. The same signifier could represent more signified, and a signified could be represented by different signifiers. For example, the concept of open can be represented not by a word but by a green light.

According to their cognitive styles, there are specific signs to which single individuals react more easily than others and, for them, more understandable.<sup>133</sup> Knowing those signs means understanding the key to open the possibility of sending and effectively receiving messages, specifically persuasive messages.

#### 2.4.1.3 *Communication filters*

There has been a focus on the sign and the two elements a sign is made of in the previous section. A sign can be a word, a sound, or an image. When individuals send and receive a message, a piece of communication, three communication elements must be considered: verbal, paraverbal, and nonverbal.<sup>134</sup> The verbal element consists of the content of the information, the words used, and the concept individuals want to transfer. The paraverbal element consists of how individuals use their voice's sound, pitch, tone, speed, and volume. The nonverbal element includes facial expressions, body position, and similar physical elements.

Mehrabian and Ferris analysed these elements' impact on communication and their inconsistency in transmitting attitudes and emotions.<sup>135</sup> Their experiments made individuals hear the

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<sup>132</sup> Ferdinand De Saussure, *Course in General Linguistics* (Columbia University Press 2011).

<sup>133</sup> Bandler and Grinder (n 131); Christophe Morin and Patrick Renvoisé, *The Persuasion Code: How Neuromarketing Can Help You Persuade Anyone, Anywhere, Anytime* (Wiley 2018).

<sup>134</sup> Albert Mehrabian and Susan R Ferris, 'Inference of Attitudes From Nonverbal Communication in Two Channels' (1967) 31 *Journal of Consulting Psychology* 248.

<sup>135</sup> *ibid*; Albert Mehrabian and Morton Wiener, 'Decoding of Inconsistent Communications' (1967) 6 *Journal of Personality and Social Psychology* 109.



word 'maybe' pronounced with different tones and emotions and then with different facial expressions, consistent or inconsistent with the sound heard. Their findings underlined that the impact of the three elements on the recipient is not equal. A person receiving a piece of information with emotional content will be more influenced by nonverbal communication (55%), less by paraverbal transmission (38%), and little by the verbal element (7%).

These results can only apply when emotions and attitudes are implied and when body language and tone of voice contradict the meaning of the spoken word. These findings are significantly relevant, considering that persuasion, as stated by Campbell, is linked with emotions.<sup>136</sup> When emotions are involved, what individuals see and hear has more impact on them than the content of the message. The following sections will focus on the link between messages and emotions.

#### **2.4.2 Means of Persuasion. Ethos, Pathos, and Logos.**

According to all the above, persuasion happens through communication. It consists of transmitting a message through communication filters and cognitive styles. Persuasion finds some of its routes, among others, in the work of Aristotle, and specifically in the art of rhetoric, the ability to see what is possibly persuasive in every given case.<sup>137</sup> According to Aristotle, there are different elements in the art of persuading and precisely three means of persuasion.<sup>138</sup> A speech has three elements: the speaker, the listener, and the argument. Therefore, according to Aristotle, technical aspects in the art of persuading can be found 1) in the speaker, 2) in the emotional state of the audience, and 3) in the argument itself.<sup>139</sup>

The speaker must be considered reliable and, to do so, must show practical intelligence, good character, and goodwill. The audience subjectively assesses these elements. The success of persuasive intent, then, also depends on the emotional disposition of the hearer. Good emotions towards the speaker enhance the chances of being persuaded, and it is up to the speaker to induce a positive emotional state in the audience. Thirdly, the argument itself can be persuasive and can be led in an inductive or deductive way.<sup>140</sup> Induction can be defined as proceeding from the single elements to the general idea. Deduction, also called a syllogism, is an argument in which certain things have been supposed, and some logical consequences result necessarily through them.<sup>141</sup> The syllogism is called in rhetoric *enthymeme*, which means 'to consider' and can be identified as the centre of persuasion.<sup>142</sup>

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<sup>136</sup> Campbell, *The Philosophy of Rhetoric* (n 121).

<sup>137</sup> Richard Claverhouse Jebb, *The Rhetoric of Aristotle: A Translation* (The University Press 1909).

<sup>138</sup> *ibid* 143.

<sup>139</sup> *ibid*.

<sup>140</sup> *ibid* 67.

<sup>141</sup> *ibid* 64.

<sup>142</sup> *ibid*.

Individuals are most easily persuaded when they think something has been demonstrated. To make someone believe that something (A) is true, the persuader must first identify a concept (B) already accepted by the target of persuasion. Then, they must show that A can be derived from B, using B as premises. Individuals will accept a new idea as soon as they understand that it can be demonstrated based on what they already believe to be accurate, on their own opinions. Therefore, according to Aristotle, there are three parts of a persuasive argument: logical argument (Logos),<sup>143</sup> emotional argument (Pathos),<sup>144</sup> and ethical appeal or credibility of the speaker (Ethos).<sup>145</sup> These three elements are the basis for the theories of persuasion, addressed in the following section.

### 2.4.3 Persuasion Theories, System 1, and Cognitive Biases

A systemic attempt to study the phenomenon of persuasion was made by a group of researchers at Yale University, led by Hovland, during the Second World War.<sup>146</sup> Hovland focused on the effect of media on people's minds, adopting an approach based on learning principles. His theory consisted of the idea that, as a person can learn a language, so can learn new behaviours given the proper conditions. Hovland's approach focused on Ethos and Logos. Regarding Ethos, Hovland theorised that the speaker's credibility, expertise, trustworthiness, and liking were crucial in persuasion. As per Logos, his study underlined that a message's structure is directly connected with its persuasive power. Lately, the cognitivist approach to social cognition focused on the recipient (the person to be persuaded), analysing the cognitive styles and the mechanisms involved in response to the persuasive message.<sup>147</sup> In developing Hovland's ideas, McGuire identified a persuasive process divided into different steps: Attention, Understanding of the content, Acceptance, Memorisation, and Behaviour.<sup>148</sup> According to McGuire, the persuasive effect will likely happen if every step is fulfilled.

Many attempted to elaborate further on the theory of persuasion.<sup>149</sup> In 1986, understanding that too many hypotheses had been developed and trying to reconcile them in one unicum, Petty and Cacioppo formulated the Elaboration Likelihood Model (ELM) of persuasion, according to which individuals use two routes to process communications:

- 1) the central route, which gives a conscious evaluation of the message;

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<sup>143</sup> *ibid* 227.

<sup>144</sup> *ibid* 238.

<sup>145</sup> *ibid* 62.

<sup>146</sup> Carl Iver Hovland, Irving Lester Janis and Harold H Kelley, *Communication and Persuasion* (Greenwood Press 1953).

<sup>147</sup> William J McGuire, 'Toward Social Psychology's Second Century' in S Koch and DE Leary (eds), *A Century of Psychology as Science* (McGraw-Hill 1985).

<sup>148</sup> *ibid*.

<sup>149</sup> Ramon J Rhine and Laurence J Severance, 'Ego-involvement, Discrepancy, Source Credibility, And Attitude Change' (1970) 16 *Journal of Personality and Social Psychology* 175; Samuel Himmelfarb and Alice H Eagly, *Readings in Attitude Change* (John Wiley & Sons 1974); Brian Sternthal, Ruby Dholakia and Clark Leavitt, 'The Persuasive Effect of Source Credibility: Tests of Cognitive Response' (1978) 4 *Journal of Consumer Research* 252.

2) the peripheral route, a superficial scan of the message.<sup>150</sup>

The central route is a proper analysis from a logical point of view and consists of deep scrutiny of the argument per se (the Logos). Instead, the peripheral route is more linked with emotions than with the core of the message and its logical analysis (more Pathos).

Therefore, one way to persuade is by focusing on the argument's quality in a persuasive message. Another possibility, however, is that a simple emotional cue in the persuasion context affects attitudes and behaviours without argument processing. Which route (central or peripheral) will prevail depends upon the person's motivation and ability to process the information. Motivation is the inner reason to acquire new information, according to a person's need for cognition, personal relevance of the information, or personal responsibility. The ability, instead, depends on factors such as distraction, repetition, previous knowledge, or message comprehensibility.<sup>151</sup> If motivation and ability are present, a central route is more likely to be followed. If a person lacks motivation and ability, a peripheral route will prevail.

The same concept of a double route has been studied via the Heuristic Systematic Model (HSM), created by Chaiken, which focuses as the ELM on a dual analysis of a piece of information.<sup>152</sup> Systematic processing consists of a careful and deliberative message process, while heuristic processing uses simplified decision rules to assess the message content quickly. Different theories regarding persuasion have been developed over time, such as the Framing theory<sup>153</sup> or the Psychological Reactance theory.<sup>154</sup>

Starting from the research of Stanovich and West,<sup>155</sup> Kahneman then elaborated a broadly used theory, to which this work will refer in the following chapters.<sup>156</sup> According to Kahneman, people have two different decisional systems. One more primordial (System 1) operates instinctually and subconsciously, and a second (System 2), more rational, has access to more cognitive resources. Cialdini also developed a broadly accepted system based on six principles of persuasion, which can briefly be described as follows:

- Reciprocity: people feel compelled to repay a favour they have received.

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<sup>150</sup> Richard E Petty and John T Cacioppo, *The Elaboration Likelihood Model of Persuasion* (Communication and Persuasion, Springer 1986); Richard E Petty and John T Cacioppo, *Communication and Persuasion: Central and Peripheral Routes to Attitude Change* (Science & Business Media, Springer 2012).

<sup>151</sup> Petty and Cacioppo (n 150).

<sup>152</sup> Shelly Chaiken, 'Heuristic Versus Systematic Information Processing and the Use of Source Versus Message Cues in Persuasion' (1980) 39 *Journal of Personality and Social Psychology* 752.

<sup>153</sup> Alexander J Rothman and others, 'The Systematic Influence of Gain-And Loss-Framed Messages on Interest in and Use of Different Types of Health Behavior' (1999) 25 *Personality and Social Psychology Bulletin* 1355.

<sup>154</sup> Sharon S Brehm and Jack W Brehm, *Psychological Reactance: A Theory of Freedom and Control* (Academic Press 2013).

<sup>155</sup> Keith E Stanovich and Richard F West, 'Individual Differences in Rational Thought' (1998) 127 *Journal of Experimental Psychology: General* 161.

<sup>156</sup> Daniel Kahneman, *Thinking, Fast and Slow* (Macmillan 2011).

- Authority: people usually follow the lead of experts in a field.
- Likeability: people are more likely to react positively to what they already know or like (also aesthetically).
- Scarcity: people tend to desire things that are less available or limited in number.
- Commitment: people usually follow their previous actions or beliefs.
- Social Proof: people tend to do as everyone else is doing.<sup>157</sup>

None of the six principles of persuasion refers to the core of the information, to the meaning in a proper sense. They focus on peripheral, heuristic cues and what has been defined as cognitive biases, which consist of shortcuts to System 1.<sup>158</sup> Kellermann and Cole,<sup>159</sup> as well as Cialdini, have identified multiple distinct schemes and strategies to persuade.<sup>160</sup>

Therefore, it can be stated that persuasion can be achieved through System 2, proper reasoning, or System 1, using strategies to reach the primordial brain through cognitive biases. It shall also be considered that, according to the abovementioned theories, an instinctual change based on a peripheral or heuristic cue requires little cognitive effort. Instead, analysing a message properly and understanding its meaning requires a consistent cognitive effort. When the message to be acquired is complex, this mental effort requires strong motivation and considerable ability.<sup>161</sup> If the information to be received is far from individuals, they perceive a significant cognitive dissonance towards it, a sense of discomfort in thinking something inconsistent or too far from their previous ideas.<sup>162</sup> Complex tasks require a high level of motivation.<sup>163</sup>

According to all the above, for a message to be acquired by the target of persuasion, it is necessary to affect the primordial brain (System 1) and (or) to reduce an existing cognitive dissonance and induce the individual to decide using System 2. Giving a message more likely to be understood by reducing mental effort is essential. As it happens in neuromarketing,<sup>164</sup> a personalised persuasive approach can reach peripheral cues, enhancing the possibility of persuading via profiling, a concept addressed in the following section, together with the characteristics of technology-led persuasion.

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<sup>157</sup> Robert B Cialdini, *Influence. The Psychology of Persuasion* (3rd edn, HarperBus 2021).

<sup>158</sup> Daniel Kahneman and Shane Frederick, 'Representativeness Revisited: Attribute Substitution in Intuitive Judgment' in Gilovich T, Griffin D and Kahneman D (eds) *Heuristics and Biases: The Psychology of Intuitive Judgment* (CUP 2002); Martie G Haselton, Daniel Nettle and Paul Andrews, 'The evolution of Cognitive Bias' in David M Buss, *The handbook of Evolutionary Psychology* (John Wiley & Sons, Inc. 2005).

<sup>159</sup> Kathy Kellermann and Tim Cole, 'Classifying Compliance Gaining Messages: Taxonomic Disorder and Strategic Confusion' (1994) 4 *Communication Theory* 3.

<sup>160</sup> Robert B Cialdini and others, 'Managing Social Norms for Persuasive Impact' (2006) 1 *Social Influence* 3.

<sup>161</sup> Petty and Cacioppo (n 150).

<sup>162</sup> Joel Cooper, *Cognitive Dissonance: 50 Years of a Classic Theory* (Sage 2007).

<sup>163</sup> Anthony G Greenwald, 'Cognitive Learning, Cognitive Response to Persuasion, and Attitude Change' (1968) 1968 *Psychological Foundations of Attitudes* 147.

<sup>164</sup> Morin and Renvoisé (n 133).

## 2.5 Human-Computer Persuasion, AI, and Profiling

Given that persuasion has understandable features, having the work of Nass and others as a starting point,<sup>165</sup> persuasion must now be applied to technology. A PT can be compared to a persuasive human.

A distinction must be made to go further in the analysis. As stated by Harjumaa and Oinas-Kukkonen, the differences between interpersonal, computer-mediated, and human-computer persuasion have to be considered.<sup>166</sup> The first occurs between two humans, and it is the persuasion Aristotle was considering: one person trying to convince another. The second uses a computer as a medium. The content that can persuade is delivered via technology, but humans still interact. An example can be found in an email or a blog article. Instead, human-computer persuasion happens directly between a computer and a human. PT operates in this third kind of interaction.

PT persuades like a human. However, PT has advantages in being persuasive compared to a human persuader. It can be more persistent. It does not get tired, feel emotions, or get angry or discouraged, so social cues do not affect it. It has no form or identity; this facilitates anonymous persuasion. If an AI leads, a PT can access vast volumes of data, compare them, go over speech and body language, communicate in multiple languages, and reach millions of people simultaneously. PT can be where individuals cannot be (in private rooms, for example, where individuals bring their smartphones) and even on a person's clothing, such as The Nadi X yoga pants, which have sensors that vibrate to instruct the user on how to move.<sup>167</sup>

Persuasion can be implemented by technology. A system that uses persuasion principles must have four abilities: 1) Identify. It should recognise and identify the user despite how many different devices they use; 2) Representation. Should represent to the user the principles of influence and implement them according to the user; 3) Measurement. Should be able to measure every single user independently from the others; 4) Single inheritance. Should have the ability to link behavioural observations uniquely to single influence principles.<sup>168</sup>

Using these four abilities and computational power, PT (specifically an AI used as PT) can profile the users. It can acquire a vast amount of data via interaction with the user, measure individual differences such as cognitive styles and biases, and simultaneously adapt persuasive messages to every person's specific profile. There are two distinct methods to measure individual differences: explicit and implicit. The first one is the open way to obtain information, and it relies on the

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<sup>165</sup> Clifford Nass and others, 'Can Computer Personalities Be Human Personalities?' (1995) 43 *International Journal of Human-Computer Studies* 223; Peter Slattery, P Finnegan and Richard Vidgen, 'Persuasion: an Analysis and Common Frame of Reference for IS research' (2020) 46 *Communications of the Association for Information Systems* 30.

<sup>166</sup> Marja Harjumaa and Harri Oinas-Kukkonen, *Persuasion Theories and IT Design* (Springer 2007).

<sup>167</sup> 'Wearable X' <[www.wearablex.com](http://www.wearablex.com)> accessed 9 November 2023.

<sup>168</sup> Kaptein and others (n 41) 42.

consensual divulgence of data, as in filling in a questionnaire. The second one, implicit, is instead the result of an unperceived interaction. Salesebrain, for example, is a neuromarketing method. It can analyse eye movements, voice, facial expressions, and other biological elements to profile the user and acquire knowledge regarding how a person makes decisions according to which decisional system (central or peripheral) is used.<sup>169</sup>

An AI can adapt, unnoticed, to the user and modify its answers according to the emerging profile, shaping and morphing according to the user's cognitive style.<sup>170</sup> The user is unaware of this, bringing to what has been called 'surveillance capitalism'.<sup>171</sup> These AI's abilities can lead to a new, unseen level of computational-based persuasion that will be further discussed in Chapter 3. Before proceeding, some examples of PT will be given in the next section.

## 2.6 Applications of PT

Now that the elements of PT have been defined, examples regarding how PT can be applied are needed. Understanding where PT can be found will help identify, starting from Chapter 4, the legal issues arising from its use. As stated in 2.2, the intentional use of interactive technology for a persuasive purpose makes that technology qualified as a PT. Therefore, very different intentional uses of persuasion can be conceived, which can be obtained through simple, smart, or complex technology.

An example of simple PT is the exercise bike in the gym. The display shows the user how many calories are burned and can deliver simple motivational messages (such as 'You almost did it!') to make the user exercise more to achieve the target. In this case, the interaction with the user is minimal.



*Gym Bike*<sup>172</sup>

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<sup>169</sup> Morin and Renvoisé (n 133).

<sup>170</sup> John R Hauser and others, 'Website Morphing' (2009) 28 Marketing Science 202.

<sup>171</sup> Aron Darmody and Detlev Zwick, 'Manipulate to Empower: Hyper-relevance and the Contradictions of Marketing in the Age of Surveillance Capitalism' (2020) 7 Big Data & Society 1; Zuboff (n 26).

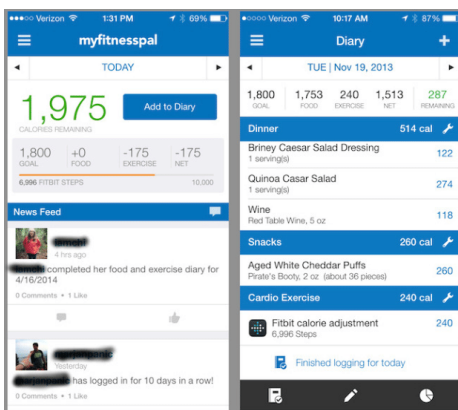
<sup>172</sup> Kseniia Lopyreva, 'Interior-of-gym-with-modern-treadmills' <[www.pexels.com/photo/interior-of-gym-with-modern-treadmills-4959807/](http://www.pexels.com/photo/interior-of-gym-with-modern-treadmills-4959807/)> accessed 9 November 2023.

Some PTs are, then, smart. A 'smart system' has been defined as a system with 'an inherent ability to gather information on its operating environment or history, to process that information in order to draw intelligent inferences from it and to act on those inferences by changing its characteristics in an advantageous manner'.<sup>173</sup> A smart PT interacts more with the users and gives them explicit persuasive messages to achieve a target. Examples of smart PT can be found in health promotion or disease management.<sup>174</sup> HAPIfork is a smart fork that monitors and tracks the users' eating habits and aims to persuade them to eat more slowly.<sup>175</sup>



*HAPIfork*<sup>176</sup>

MyFitnessPal<sup>177</sup> is a calorie counter and diet tracker app that persuades users to eat healthily and exercise more, using persuasive elements such as rewarding users with trophies for receiving specific goals and enabling competition with other users.



*MyFitnessPal*<sup>178</sup>

<sup>173</sup> NDR Goddard, RMJ Kemp and R Lane, 'An Overview of Smart Technology' (1997) 10 *Packaging Technology and Science: An International Journal* 129, 130.

<sup>174</sup> Rita Orji and Karyn Moffatt, 'Persuasive Technology for Health and Wellness: State-Of-The-Art And Emerging Trends' (2018) 24 *Health Informatics Journal* 66.

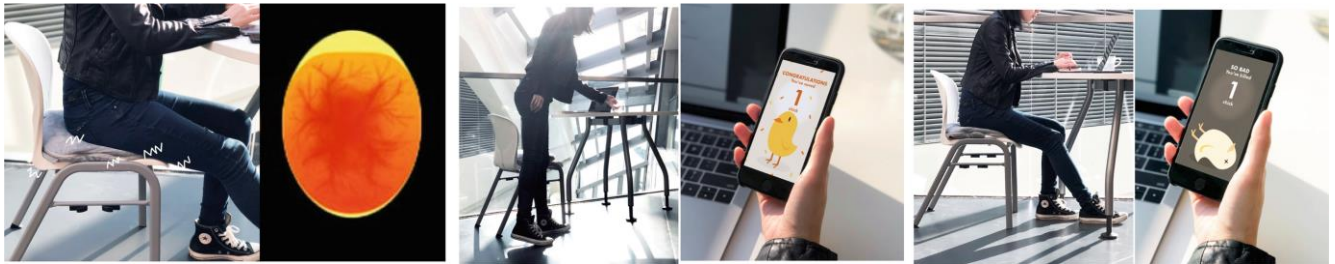
<sup>175</sup> SH Lee and DW Lee, 'An Analysis on u-Healthcare Using Internet of Things in Smart Home Environment' (2017) 23 *Advanced Science Letters* 9671.

<sup>176</sup> HAPIfork, 'HAPIfork Image' <[www.kickstarter.com/projects/1273668931/hapifork-the-smart-fork-that-tracks-your-eating-ha-0](http://www.kickstarter.com/projects/1273668931/hapifork-the-smart-fork-that-tracks-your-eating-ha-0)> accessed 9 November 2023.

<sup>177</sup> Daniel Evans, 'MyFitnessPal' (2017) 51 *British Journal of Sports Medicine* 1101.

<sup>178</sup> MyFitnessPal, 'MyFitnessPal' <<https://blog.myfitnesspal.com/now-you-can-track-your-steps-in-myfitnesspal/>> accessed 9 November 2023.

Sobriety Counter aims to persuade users to stop drinking alcohol.<sup>179</sup> The app makes the user visualise the money saved by not drinking and provides statistics about the user's health and how it improves without alcohol. Sit-Hatch is an app that persuades users to stand up during working hours.<sup>180</sup> The app shows the inside of an egg from its embryonic stage. It is used with a smart pillow on the user's chair. If the user sits too long (more than 60 min), the pillow vibrates, and the app shows a completely formed chick. If the user goes on sitting, the chick suffocates.



*Sit-Hatch*<sup>181</sup>

PT can also apply to objects directly, as with the GlowCap.<sup>182</sup> This persuasive PT consists of a smart pill bottle and cap that flashes an orange light when a user should take medication. PT can then mix an object and a game, as it happens in Hungry Panda 2, a video game that helps children's eating habits with the combined use of a smart fork called Sensing Fork, and a game that aims to persuade the children to eat all the food on their table.<sup>183</sup> Other applications to objects relate to sensitising teenagers towards pregnancy, using a device that acts like a baby.<sup>184</sup>

All the applications mentioned above are related to intentional, open persuasion chosen by the user; they use mostly autogenous motivation. However, the persuasive intent of technology can also be not directly perceivable. The clearest examples of this PT can be found in commonly used apps and social media. Kampik, in his study regarding coercion and deception in PT, analysed some examples of hidden persuasive intents.<sup>185</sup> Duolingo is a language learning software with two main

<sup>179</sup> Sjors Ligthart, Gerben Meynen and Thomas Douglas, 'Persuasive Technologies and The Right To Mental Liberty: The 'smart' Rehabilitation of Criminal Offenders' in Marcello Ienca and others (eds), *Cambridge Handbook of Information Technology, Life Sciences and Human Rights* (CUP 2020) 14.

<sup>180</sup> Kenny KN Chow, *Designing Representations of Behavioral Data with Blended Causality: An Approach to Interventions for Lifestyle Habits* (Springer 2019) 4.3.

<sup>181</sup> 'Sit-Hatch', in Chow (n 180) 4.3.

<sup>182</sup> Eric Becker and others, 'SmartDrawer: RFID-based Smart Medicine Drawer for Assistive Environments' (Petra '09: Proceedings of the 2nd International Conference on Pervasive Technologies Related to Assistive Environments, Corfu, June 2009).

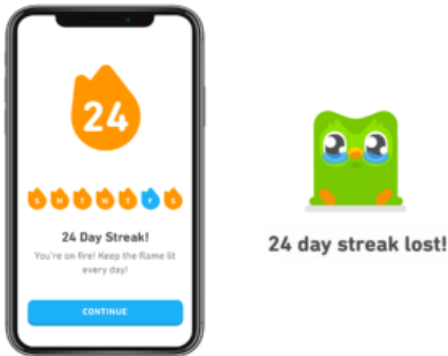
<sup>183</sup> Azusa Kadomura and others, 'Sensing Fork and Persuasive Game for Improving Eating Behavior' 'Sensing Fork and Persuasive Game for Improving Eating Behavior' (Proceedings of the 2013 ACM conference on Pervasive and Ubiquitous Computing Adjunct Publication, Zurich, September 2013) <<https://dl.acm.org/doi/10.1145/2494091.2494112>> accessed 9 November 2023.

<sup>184</sup> Phillip King, 'The Landscape of Persuasive Technologies' (1999) 42 *Communications of the ACM* 31, 34.

<sup>185</sup> Kampik, Nieves and Lindgren (n 39).



hidden persuasion targets. The first is spending as much time online as possible to maximise the effect of advertisements. The second one is to subscribe to the paid version. Therefore, the software makes the users involved in competitions and sharing achievements.



### *Duolingo Persuasive Method*<sup>186</sup>

PT is used to sell goods or services and the user's attention. As stated by Kampik, Facebook aims to persuade users to spend as much time as possible using the application, clicking, sharing, and watching ads. Also, the users try to persuade other users to accept their opinions, change their political views, or the perception others have of someone's success. The strategy used is to provide social incentives for advertisements, provide data, or spread inaccurate or false information.<sup>187</sup> YouTube is designed to persuade users to remain engaged so that the advertisement system can persuade them to consume third-party products. It provides a constant stream of videos selected from the watching history.<sup>188</sup>

More complex uses of PT are connected with a more complex form of persuasion, opened or hidden. Frischmann and Sallinger, for example, consider the existence of a body GPS, which can give a user almost unperceivable electrical signals to direct the body in the needed direction without looking at the smartphone.<sup>189</sup> Different uses of PT are connected to sales<sup>190</sup> or market manipulation.<sup>191</sup> Salesebrain can analyse eye movements, voice, facial expressions, and other biological elements to adapt the sales to the user's profile.<sup>192</sup> PT has been applied to convey persuasive messages for jihadist

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<sup>186</sup> 'Duolingo Persuasive Method', in Dirk Van Diep, 'Duolingo review – how to apply Gamification smarter' (ludogogy.co.uk, 17 February 2020) <<https://ludogogy.co.uk/article/duolingo-review-how-to-apply-gamification-smarter>> accessed 9 November 2023.

<sup>187</sup> Kampik, Nieves and Lindgren (n 39) 8.

<sup>188</sup> *ibid* 11.

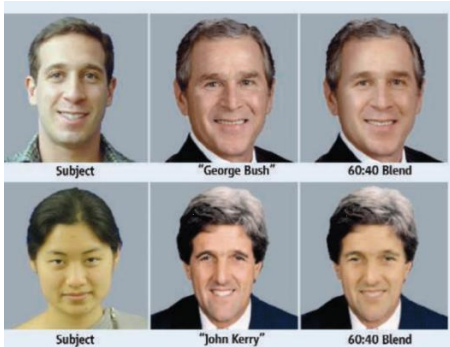
<sup>189</sup> Brett Frischmann and Evan Selinger, *Re-Engineering Humanity* (CUP 2018) 30.

<sup>190</sup> Darmody and Zwick (n 171).

<sup>191</sup> Ryan Calo, 'Digital Market Manipulation' (2013) 82 *Geo Wash LR* 995.

<sup>192</sup> Morin and Renvoisé (n 133).

terrorism.<sup>193</sup> Experiments were then done via Morphing and Virtual Reality.<sup>194</sup> In one experiment, some subjects were interviewed and asked to express their opinion on a political candidate. The candidate's image was morphed to look more like the subject of the interview. The results showed that the subjects were more inclined to like a candidate that looked like them.



*The Art of Visual Persuasion*<sup>195</sup>

Therefore, there are multiple forms of technology, simple or more complex, and different purposes and ways, open or hidden, to use persuasion in a technological form. The next chapter will consider the impact of PT on decision-making processes.

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<sup>193</sup> Kamaldeep Bhui and Yasmin Ibrahim, 'Marketing the "Radical": Symbolic Communication and Persuasive Technologies in Jihadist Websites' (2013) 50 *Transcultural Psychiatry* 216.

<sup>194</sup> Greg Miller, 'The Art of Virtual Persuasion' (2007) 317 *Science* 1343.

<sup>195</sup> Jeremy Bailenson, 'The Art of Virtual Persuasion' in Miller (n 194).

# Chapter 3 CM and Decision-Making Processes

The previous chapter identified the concept of PT. This chapter will discuss the difference between persuasion and similar concepts, investigate how an AI-led system can use manipulation resulting in CM, and identify CM's impact on individuals' decision-making processes.

## 3.1 From Persuasion to Manipulation

Considering all the elements identified in Chapter 2, PT, per se, has no negative implications or negative impact on society. It has if it is used in an unethical way. Fogg considered six 'unique ethical concerns related to persuasive technology'.<sup>196</sup> First, Technology can mask its persuasive intent. Second, computers have a positive reputation as credible and unbiased, and this reputation can be exploited to hide a persuasive purpose. Third, unlike salespeople, computers do not tire; they can reach thousands simultaneously and persistently. Computers also control all interactive possibilities so that the computer decides what happens next and what the user can see or do. Fifth, computers can affect emotions but cannot be affected by them. Finally, computers are not ethical agents in the sense that they cannot take responsibility for an error.<sup>197</sup>

In the unique relationship between the machine and a human, the importance of the unethical use of persuasion arises. Persuasion shall now be parted from similar ideas, precisely deception, coercion, and manipulation. Theoretically, as previously considered, a PT should not use them.<sup>198</sup> However, it can and does.

### 3.1.1 Persuasion, Manipulation, Deception, and Coercion

As stated in the previous chapter, persuasion is connected with cognitive psychology. It is helpful to recall that, according to Kahneman, people have two decisional systems: System 1 and System 2.<sup>199</sup> Persuasion can be based on proper reasoning or strategies to reach the primordial brain.

In order to proceed further in this analysis, it is necessary to part the concept of persuasion from that of *peithenanke*, which, in rhetoric, consists of winning over the audience by using non-transparent methods and potential manipulation and, therefore, unethical use of persuasion.<sup>200</sup>

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<sup>196</sup> Fogg, *Persuasive Technology* (n 92) 213.

<sup>197</sup> *ibid.*

<sup>198</sup> See 2.2.

<sup>199</sup> Kahneman (n 156).

<sup>200</sup> Douglas Ehninger, *Contemporary Rhetoric* (Scott, Foresman & Company 1972); Jørgen Fafner, 'Retorikkens brændpunkt' (1997) 2 *Rhetorica Scandinavica* 7; Sandra Burri Gram-Hansen, 'Family Wearables—What Makes them Persuasive?' (2021) 40 *Behaviour & Information Technology* 385, 386.

According to the Cambridge Dictionary, manipulation means controlling someone or something to someone's advantage, often unfairly or dishonestly.<sup>201</sup> Manipulation is a concept debated primarily in moral philosophy.<sup>202</sup> According to Noggle,<sup>203</sup> one of the earliest sustained philosophical discussions of manipulation appears in *A History and Theory of Informed Consent* (1986).<sup>204</sup> Noggle argues that 'the view that manipulation undermines the validity of consent is widely held among medical ethicists. However, there is far less agreement about how to determine whether a given form of influence is manipulative'.<sup>205</sup> Therefore, manipulation affects consent, and defining it is fundamental to part valid consent from an undermined one.<sup>206</sup> Barnhill has identified a commonly used definition of manipulation:

Manipulation is directly influencing someone's beliefs, desires, or emotions such that she falls short of ideals for belief, desire, or emotion in ways typically not in her self-interest or likely not in her self-interest in the present context.<sup>207</sup>

This definition anchors the concept of manipulation to an influence contrary to a person's interest, as in Kampik and others' delineation of PT's elements.<sup>208</sup> However, it can be argued that an influence in the person's interest should also be considered manipulative, as it affects consent.<sup>209</sup> Accordingly, the focus must be moved to different elements to define manipulation and separate it from persuasion.

Manipulation is characterised by exploiting the manipulatee's cognitive weaknesses and vulnerabilities to steer their decision-making toward the manipulator's ends.<sup>210</sup> It has been considered an influence that bypasses or subverts the rational capacities of the target. In Wilkinson's opinion, manipulating means influencing someone, using methods that pervert the choice.<sup>211</sup> Similarly, Faden and Beauchamp define manipulation as 'any intentional act that successfully influences a person to belief or behaviour by causing changes in mental processes other than those involved in

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<sup>201</sup> Cambridge Dictionary, 'Manipulation' <<https://dictionary.cambridge.org/dictionary/english/manipulation>> accessed 9 November 2023.

<sup>202</sup> Christian Coons and Michael Weber, *Manipulation: Theory and Practice* (OUP 2014).

<sup>203</sup> Robert Noggle, 'The Ethics of Manipulation' in *The Stanford Encyclopedia of Philosophy* (Sum Edn, 2020) 1 <<https://plato.stanford.edu/archives/sum2020/entries/ethics-manipulation/>> accessed 9 November 2023.

<sup>204</sup> Ruth R Faden and Tom L Beauchamp, *A history and theory of informed consent* (OUP 1986).

<sup>205</sup> Noggle, 'The Ethics of Manipulation' (n 203) 1.

<sup>206</sup> See Chapter 6 regarding consent.

<sup>207</sup> Anne Barnhill, 'What is Manipulation' in Christian Coons and Michael Weber (eds) *Manipulation: Theory and Practice* (OUP 2014) 52.

<sup>208</sup> Kampik, Nieves and Lindgren (n 39).

<sup>209</sup> Sunstein, 'Fifty Shades of Manipulation' (n 26).

<sup>210</sup> Daniel Susser, Beate Roessler and Helen Nissenbaum, 'Online Manipulation: Hidden influences in a Digital World' (2018) 4 *Georgetown Law Technology Review* 1.

<sup>211</sup> TM Wilkinson, 'Nudging and Manipulation' (2013) 61 *Political Studies* 341. See also Coons and Weber (n 202) 11.

understanding'.<sup>212</sup> Raz suggests that 'manipulation, unlike coercion, does not interfere with a person's options. Instead it perverts the way that person reaches decisions, forms preferences or adopts goals'.<sup>213</sup> Sunstein has considered the implications of manipulation in the nudges field (which will be analysed further in this thesis).<sup>214</sup> Sunstein reached the following definition: 'A statement or action can be said to be manipulative if it does not sufficiently engage or appeal to people's capacity for reflective and deliberative choice.'<sup>215</sup>

The definition of manipulation is related to the two cognitive systems identified by Kahneman: System 1 (the intuitive, heuristic system) and System 2 (the reflective system).<sup>216</sup> Manipulation targets System 1, undermining or bypassing System 2. An example, taken from Sunstein, can be helpful:

Suppose that public officials try to persuade people to engage in certain behaviour with the help of relative risk information: "If you do not do X, your chances of death from heart disease will triple!" But suppose that for the relevant population, the chance of death from heart disease is very small – say, one in 100,000 – and that people are far more influenced by the idea of "tripling the risk" than they would be if they learned that if they do not do X, they could increase a 1/100,000 risk to a 3/100,000 risk (to say the least, a modest increase). The relative risk frame is far more attention grabbing than the absolute risk frame; a tripling of a risk sounds alarming, but if the increase is by merely 2/100,000, people might not be much concerned. It is certainly reasonable to take the choice of the relative risk frame (which suggests a large impact on health) is an effort to frighten people and thus to manipulate them (at least in a mild sense).<sup>217</sup>

In this example, it is clear that how the information is proposed to the subject to be persuaded can enhance or exclude the possibilities for that information to be adequately analysed through reasoning. If properly formed, the reasoning (System 2) does not threaten a person's decisional autonomy. Instead, targeting System 1 endangers an individual's autonomy and self-determination.<sup>218</sup> Therefore, according to Sunstein, manipulation consists of not sufficiently appealing to an

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<sup>212</sup> Faden and Beauchamp (n 204) 355.

<sup>213</sup> Joseph Raz, *The Morality of Freedom* (Clarendon Press 1986) 377.

<sup>214</sup> See 3.1.2.1.

<sup>215</sup> Sunstein, 'Fifty Shades of Manipulation' (n 26) 1.

<sup>216</sup> Kahneman (n 156).

<sup>217</sup> Sunstein, 'Fifty Shades of Manipulation' (n 26) 14.

<sup>218</sup> See 5.2.

individual's capacity for a reflective and deliberative choice. To manipulate a person can be compared to controlling that person as a puppet, pulling strings.<sup>219</sup>

Separating persuasion from coercion and manipulation is relevant in analysing the difference between manipulation and similar concepts. As stated by Susser, persuasion can have different meanings.<sup>220</sup> In a broad sense, it can be intended with the connotation of changing someone's mind. This meaning of persuasion contains significantly divergent forms of influence, from proper rational argumentation to violence. Instead, persuasion, in a narrow sense, means changing someone's mind by giving reasons they can reason about.<sup>221</sup> According to Susser, there are two ways to influence another person's decision-making process. The first one is to change the options available to the other person. The second one consists of changing how the other person understands the options.<sup>222</sup> Both methods appeal to people's capacity for conscious deliberation and choice and are based on alternatives. They engage System 2.

Coercing someone, instead, means eliminating all of the acceptable alternatives.<sup>223</sup> Even if coercing deprives someone of their options, it does not undermine individuals' decision-making faculties. It simply makes the coercer's way the only acceptable one.<sup>224</sup> It is experienced, for example, during the use of a device, in subtle form, as the impossibility to access certain information without giving personal data or to complete a setup without installing a different, third-party app.

Manipulation, differently from persuasion and coercion, deprives people of their capacity for self-government and, more specifically, of the decision-making process. This deprivation could be brought about differently, and different ideas of what manipulation consists of have been theorised. According to Baron, manipulation can happen via lies, false promises, applying pressure, and playing on people's emotions.<sup>225</sup> According to Wood, it may happen by encouraging false assumptions, fostering self-deception, and appealing to character flaws.<sup>226</sup> According to Noggle, manipulation is obtained by causing an individual's beliefs, desires, or emotions to deviate from certain ideals.<sup>227</sup> In Noggle's opinion, manipulating someone is based on corrupting decision-making processes, adjusting an individual's internal psychological levers away from their ideal setting.<sup>228</sup> Therefore,

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<sup>219</sup> Sunstein, 'Fifty Shades of Manipulation' (n 26).

<sup>220</sup> Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210) 14.

<sup>221</sup> *ibid.*

<sup>222</sup> *ibid.*

<sup>223</sup> Allen W Wood, 'Coercion, Manipulation, Exploitation' in Christian Coons and Michael Weber (eds) *Manipulation: Theory and Practice* (OUP 2014).

<sup>224</sup> Coons and Weber (n 202).

<sup>225</sup> Marcia Baron, 'Manipulativeness' (2003) 77 *Proceedings and Addresses of the American Philosophical Association* 37.

<sup>226</sup> Wood (n 223).

<sup>227</sup> Robert Noggle, 'Manipulative Actions: a Conceptual and Moral Analysis' (1996) 33 *American Philosophical Quarterly* 43.

<sup>228</sup> *Ibid.* See also Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210).

individuals can be brought to have false beliefs, can be tempted (creating a desire), or can be incited, causing an inappropriate emotional response.<sup>229</sup> According to Susser and others, however, manipulation seems not to be reducible to causing someone to make less-ideal decisions. It is possible to manipulate an individual to make more ideal decisions. Therefore, in their opinion, the hiddenness of manipulative influence shall be considered as characterising the manipulation concept.<sup>230</sup>

According to Goodin, a deceptive influence should be put at the centre of the manipulation theory. In their opinion, one person manipulates another when they deceptively influence that person, causing the other to act contrary to their presumptive will.<sup>231</sup> Ware expresses a similar concept. In his opinion, for an individual to manipulate another, the manipulatee shall not know of or not understand how the manipulator affects their choices.<sup>232</sup>

Manipulation is related to deception, which exploits specifically the lack of information.<sup>233</sup> Deception is one way to manipulate, which can be identified as Manipulation 1 (M1). However, a more subtle and dangerous way, which can be identified as Manipulation 2 (M2), consists of searching willingly for heuristic forms of reasoning that affect System 1. According to Kahneman and Tversky, individuals are often influenced by irrelevant information (so-called ‘anchoring effects’) and give more weight to elements they can easily recall (the ‘availability heuristic’).<sup>234</sup> People, then, draw different conclusions from the same information depending on how it is presented (‘framing effects’).<sup>235</sup> Therefore, manipulation is not necessarily linked to deception, which exploits just one kind of vulnerability, specifically the lack of correct information. Manipulation can also happen via accurate data but presented in such a way as to affect System 1 (M2).

According to all the above, Susser identifies manipulation as ‘imposing a hidden or covert influence on another person’s decision-making’.<sup>236</sup> Therefore, two different dimensions of manipulation can be considered. The first is manipulation as unawareness of influence,<sup>237</sup> while the second is manipulation as the impossibility of rational choice.<sup>238</sup> According to Susser, this hidden influence must be intentional.<sup>239</sup>

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<sup>229</sup> Noggle, 'Manipulative Actions' (n 227).

<sup>230</sup> Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210) 3.

<sup>231</sup> Robert E Goodin, 'Manipulatory politics' (1980) 75 *American Political Science Review* 477.

<sup>232</sup> Alan Ware, 'The Concept of Manipulation: Its Relation to Democracy and Power' (1981) 11 *British Journal of Political Science* 163.

<sup>233</sup> Kampik, Nieves and Lindgren (n 39); Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210).

<sup>234</sup> Amos Tversky and Daniel Kahneman, 'Judgment Under Uncertainty: Heuristics and Biases' (1974) 185 *Science* 1124.

<sup>235</sup> Amos Tversky and Daniel Kahneman, 'Rational Choice and the Framing of Decisions' in Birsen Karpak and Stanley Zionts (eds), *Multiple Criteria Decision Making and Risk Analysis Using Microcomputers* (Springer 1989).

<sup>236</sup> Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210) 26.

<sup>237</sup> *ibid.*

<sup>238</sup> Coons and Weber (n 202); Wood (n 223).

<sup>239</sup> Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210) 26.

Accordingly, and linking the definition of manipulation to the field of PT, manipulation can be considered, using Sussers' words, as the 'applications of information technology that imposes hidden influences on users by targeting and exploiting decision-making vulnerabilities'.<sup>240</sup>

### 3.1.2 The Nudge

According to all the above, a PT can persuade and use manipulation. The manipulative ability of PT, being hidden and targeting System 1, affects individuals' autonomy in decision-making. Autonomy can be endangered by unawareness of the influence<sup>241</sup> and making rational choice impossible.<sup>242</sup> The concept of manipulation has been analysed recently in social media. As Susser stated, individuals are getting used to phones, social media, and computers; they are part of our lives, and individuals may not expect them to be a threat.<sup>243</sup> Therefore, while using technological tools, people may not expect to be analysed and profiled to be influenced in their decisions.<sup>244</sup> People, thus, may not have any reason to adjust their behaviour to possible unperceived manipulations.

It is relevant to link the ability of PT to use persuasion and *peithenanke* with the understanding of how this use may happen via the unawareness of the influence and making the rational choice impossible. In order to make this link, it has to be considered that PT can use a nudge, which can be described as a choice architecture that modifies an individual's behaviour predictably.<sup>245</sup> The modification happens without forbidding options or significantly changing an individual's economic incentives.<sup>246</sup>

A nudge can be imagined as a configuration that shapes reality. In this sense, a nudge is a piece of architecture that can be built. A nudge consists of positioning elements to make one choice more likely to happen between the possible choices. The decisional choice context can be intentionally designed to influence human decision-making towards particular, pre-chosen directions systematically.<sup>247</sup> An example of this architecture can be found in the cafeteria owner who positions the salad before a dessert in a public health campaign to nudge individuals to eat healthy food.

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<sup>240</sup> *ibid*, 29. See also Shaun B Spencer, 'The problem of Online Manipulation' (2020) U Ill LR 959. Contra see Fleur Jongepier and Michael Klenk, *The Philosophy of Online Manipulation* (Taylor & Francis 2022). However, the authors recognise that manipulation can be hidden. See Michael Klenk, '(Online) Manipulation: Sometimes Hidden, Always Careless' (2022) 80 *Review of Social Economy* 85.

<sup>241</sup> Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210).

<sup>242</sup> Coons and Weber (n 202); Wood (n 223).

<sup>243</sup> Susser, Roessler and Nissenbaum, 'Technology, Autonomy, and Manipulation' (n 20).

<sup>244</sup> *ibid*; Sunstein, 'Fifty shades of manipulation' (n 26).

<sup>245</sup> Thaler and Sunstein, *Nudge* (n 23); Stephanie Mertens and others, 'The Effectiveness of Nudging: A Meta-Analysis of Choice Architecture Interventions Across Behavioral Domains' (2022) 119 *PNAS* 1.

<sup>246</sup> See references in n 44.

<sup>247</sup> Yeung, 'Hypernudge' (n 48) 2.2.



To fully understand the following reasoning, it shall be considered that the configuration of this intentional design (the architecture) requires knowledge. Therefore, the designer shall have specific knowledge concerning the existence of cognitive shortcuts to people's cognitive biases. Additionally, the designer must understand how these shortcuts can be triggered to modify people's behaviour in a chosen, predictable way.

It is crucial to give examples of possible nudges to understand, later in this analysis, how nudges can, if led by an AI, bring to a new and unprecedented level of manipulation: CM.

### 3.1.2.1 *Examples of nudges*

Hansen and Jespersen distinguish nudges into four categories based on two variables.<sup>248</sup> The first variable is the kind of thinking engaged, which can be automatic (System 1) or reflective (System 2).<sup>249</sup> The second variable is the transparency of a nudge, which means that the user can perceive the intentions behind the nudge or not. Accordingly, the nudges can be parted into the following macro-categories:

- 1) Nudges that aim to influence behaviour appeal to System 1 and are transparent, as happens in changing the default option.



*Default Settings*<sup>250</sup>

- 2) Nudges that aim to induce a reflective choice appeal to System 2 and are transparent, such as the 'look right' sign on the streets.

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<sup>248</sup> Hansen and Jespersen' (n 44).

<sup>249</sup> Kahneman (n 82).

<sup>250</sup> Lisa Fotios, 'Iphone-setting-on-screen' <[www.pexels.com/photo/iphone-setting-on-screen-15760170](https://www.pexels.com/photo/iphone-setting-on-screen-15760170/)> accessed 9 November 2023.



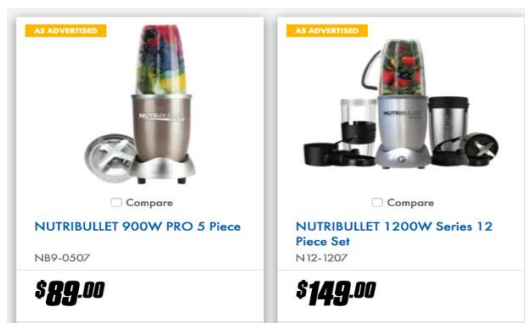
*Look Right*<sup>251</sup>

- 3) Nudges that aim to manipulate a behaviour: they appeal to System 1 and are not transparent, as happens when putting the salad in front of unhealthy food.



*Buffer*<sup>252</sup>

- 4) Nudges that aim to manipulate a choice appeal to System 2 but are not transparent, as happens when adding alternatives to the possible options to increase the value of one of them.



*Decoy Effect*<sup>253</sup>

<sup>251</sup> Gustavo Vizart, 'Warning-on-pedestrian-crossing' <[www.pexels.com/photo/warning-on-pedestrian-crossing-16180362/](http://www.pexels.com/photo/warning-on-pedestrian-crossing-16180362/)> accessed 9 November 2023.

<sup>252</sup> Naim Benjelloun, 'Close-up-photo-of-vegetable-salad' <[www.pexels.com/photo/close-up-photo-of-vegetable-salad-2291344/](http://www.pexels.com/photo/close-up-photo-of-vegetable-salad-2291344/)> accessed 9 November 2023.

<sup>253</sup> 'Decoy Effect', in Gary Mortimer, 'The Decoy Effect: How You Are Influenced to Choose Without Really Knowing It' (theconversation.com, 17 February 2019) <<https://theconversation.com/the-decoy-effect-how-you-are-influenced-to-choose-without-really-knowing-it-111259>> accessed 9 November 2023.

According to Caraban and others, 23 different ways to nudge can be considered, divided into six categories.<sup>254</sup> They are: facilitate, confront, deceive, social influence, fear, and reinforce.

### 3.1.2.1.1 Facilitate

This category of nudges bases its action on diminishing physical or mental effort, facilitating decision-making. They exploit individuals' tendency to resist change and follow the easier path. They rely on the status quo bias.<sup>255</sup> This bias leads individuals to maintain choices already made because searching for a better alternative requires effort and time.<sup>256</sup> The facilitate nudges can operate in different ways:

- 1) Default options: for example, replacing the default printer option with 'double-sided print'.
- 2) Opt-out policies: for example, giving an automated password, which the user can change (opt-out).
- 3) Positioning: this nudge involves altering the visual arrangement of the options provided to the user, as it happens when putting products in a shop in certain positions (at eye level) or using colours.



*Retail Shop*<sup>257</sup>

- 4) Hiding: makes undesirable options (such as the unsubscribe option from Facebook) more challenging to reach.

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<sup>254</sup> Ana Caraban and others, '23 Ways to Nudge: A Review of Technology-Mediated Nudging in Human-Computer Interaction' (Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems, Glasgow, May 2019) <<https://dl.acm.org/doi/10.1145/3290605.3300733>> accessed 9 November 2023.

<sup>255</sup> Ilana Ritov and Jonathan Baron, 'Status-quo and Omission Biases' (1992) 5 *Journal Of Risk and Uncertainty* 49.

<sup>256</sup> Daniel Kahneman, Jack L Knetsch and Richard H Thaler, 'Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias' (1991) 5 *Journal of Economic Perspectives* 193; Thaler and Sunstein, *Nudge* (n 23).

<sup>257</sup> Pixabay, 'Booth-branding-business-buy' <[www.pexels.com/photo/booth-branding-business-buy-264636/](http://www.pexels.com/photo/booth-branding-business-buy-264636/)> accessed 9 November 2023.

- 5) Suggesting alternatives: the term is self-explanatory. An example could be offering alternatives to the products the user selects when selling on a website.

### 3.1.2.1.2 Confront

Confront nudges aim to instil doubt, trying to stop an undesirable action from the user. This kind of nudge relies on the regret aversion bias.<sup>258</sup> According to this bias, people tend to evaluate their decisions better if they perceive a certain level of risk.<sup>259</sup> The confront nudges can be obtained in different ways:

- 1) Throttling mindless activity: for example, via a countdown, giving the user 10 seconds before posting a photo or a comment to give time to think.
- 2) Reminding the consequences: according to the availability heuristic, individuals judge an event's probability based on how easily the event can be recalled.<sup>260</sup> For example, this nudge can be obtained by reminding users that an app can see and delete photos or that smoking kills.



*Smoking Kills*<sup>261</sup>

- 3) Creating friction: this nudge is similar to the precedent but indirectly affects the users. It can be obtained, for example, via a reading lamp that decreases its intensity over time to nudge the user to think if the light is still needed.
- 4) Providing multiple viewpoints: this nudge relies on confirmation bias, an individual's tendency to seek information that matches their beliefs, rejecting the information that does not confirm their hypothesis.<sup>262</sup> Giving more points of view helps to reason.

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<sup>258</sup> Samuelson and Zeckhauser (n 110).

<sup>259</sup> Caraban and others (n 259).

<sup>260</sup> Tversky and Kahneman, 'Judgment Under Uncertainty' (n 234).

<sup>261</sup> FocalPoint, 'Smoking kills' <[https://commons.wikimedia.org/wiki/File:Smoking\\_kills.png](https://commons.wikimedia.org/wiki/File:Smoking_kills.png)> accessed 9 November 2023.

<sup>262</sup> Raymond S Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises' (1998) 2 Review of General Psychology 175.

### 3.1.2.1.3 Deceive

Nudges in this category use deception. They induce someone to believe something that is not true, affecting the perception of the alternatives or one experience to promote particular options. They can be obtained:

- 1) Adding inferior alternatives: according to the decoy effect, individuals prefer an option when an inferior alternative (decoy) is added to the original set.<sup>263</sup> For example, the nudge can be obtained on an online shopping site by displaying the item that needs to be sold next to two other similar: one of considerably higher price and one of lower quality and comparable price.
- 2) Biasing the memories of past experiences: an individual's ability to recall past experiences is shaped by their most intense pick and the last episode.<sup>264</sup> Individuals could be affected regarding how they remember events by changing their endings. A game, for example, can make a user win at the very end, even if they do not deserve it, to make the user play again.
- 3) Placebo: an element that does not affect the individual's condition or environment and can improve their mental or physical response due to its perceived effect. An example can be to give a saline solution instead of medicine. A more complex placebo nudge could be obtained in a racing game, giving the perception that the game is moving slower, altering the speed of the background while the game maintains the same speed.
- 4) Deceptive visualisations: The salience bias refers to the fact that individuals are more likely to focus on items or information that are more prominent and ignore those that are less so.<sup>265</sup> For example, adjusting the size of bar graphs to make players in a game think they achieved higher scores than they did.

### 3.1.2.1.4 Social Influence

Social influence nudges rely on the tendency of people to conform and comply with what is expected from them. They can be obtained:

- 1) Invoking feelings of reciprocity: people tend to return with a reciprocal action what has been given to them, according to the reciprocal bias.<sup>266</sup> An example of this nudge is offering a free computer program or product sample.

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<sup>263</sup> Ian J Bateman, Alistair Munro and Gregory L Poe, 'Decoy Effects in Choice Experiments and Contingent Valuation: Asymmetric Dominance' (2008) 84 *Land Economics* 115.

<sup>264</sup> Andy Cockburn, Philip Quinn and Carl Gutwin, 'Examining The Peak-End Effects of Subjective Experience' (Proceedings of the 33rd Annual ACM Conference On Human Factors In Computing Systems, Seoul, April 2018) <<https://dl.acm.org/doi/10.1145/2702123.2702139>> accessed 9 November 2023.

<sup>265</sup> Tversky and Kahneman, 'Judgment Under Uncertainty' (n 234).

<sup>266</sup> Cialdini, *Influence* (n 157).

- 2) Leveraging public commitment: this nudge relies on the commitment bias, the tendency to commit to what has already been decided.<sup>267</sup> An example is to add a commitment button on an online assignment to be pushed when the work begins.
- 3) Raising the visibility of users' actions: this kind of nudge leverages the spotlight effect, according to which individuals overestimate how their actions and decisions are noticeable to others.<sup>268</sup> A simple example is an electronic board that makes one's real-time speed public.



*Radar Speed*<sup>269</sup>

- 4) Enabling social comparison: herd instinct bias refers to people's tendency to replicate others' actions, even if this implies acting against their beliefs.<sup>270</sup> People tend to pay attention to others' conduct and search for social proof when they cannot determine the appropriate conduct.

#### 3.1.2.1.5 Fear

Fear nudges induce feelings of fear, loss or uncertainty. They can be obtained in different ways:

- 1) Make resources scarce: this happens by reducing the perceived availability. The scarcity bias refers to individuals' tendency to attribute more value to an object because they believe it will be more challenging to acquire in the future.<sup>271</sup> An example can be found on a booking or selling website, showing how many items are left.

<sup>267</sup> Barry M Staw, 'The Escalation of Commitment to a Course Of Action' (1981) 6 *Academy of Management Review* 577.

<sup>268</sup> Thomas Gilovich, Victoria Husted Medvec and Kenneth Savitsky, 'The Spotlight Effect in Social Judgment: an Egocentric Bias in Estimates of the Saliency of One's Own Actions and Appearance' (2000) 78 *Journal of Personality and Social Psychology* 211.

<sup>269</sup> Wikipedia, 'Radar Speed Sign' <[https://en.wikipedia.org/wiki/Radar\\_speed\\_sign](https://en.wikipedia.org/wiki/Radar_speed_sign)> accessed 9 November 2023.

<sup>270</sup> Cialdini, *Influence* (n 157).

<sup>271</sup> *ibid.*

- 2) Reducing the distance: individuals often fail to engage in self-beneficial activities when the outcomes are distant in time or hypothetical. Nudges in this category act by reducing these forms of psychological distance.<sup>272</sup> This nudge can be obtained by making people perceive something more vividly, like a fire experience and the consequences, to induce them to subscribe to an insurance policy.

#### 3.1.2.1.6 Reinforce

Nudges in this category attempt to reinforce behaviours by increasing their presence in individuals' thinking:

- 1) Just-in-time prompts: this kind of nudge brings the user's attention towards a specific behaviour at the most convenient time. For example, it can be obtained by sending a reminder of an offer by an online home delivery application around lunchtime.
- 2) Ambient feedback: these nudges attempt to reinforce particular behaviours. For example, interactive sculptures that mimic office workers' postures can be imagined to break prolonged sedentary activity.
- 3) Instigating empathy: this nudge relies on the affect heuristic.<sup>273</sup> Empathy nudges use emotionally charged representations to provoke compassion. An example can be found in showing pictures of babies to induce a donation.



*Donate for Africa*<sup>274</sup>

- 4) Subliminal priming: this last kind of nudge reinforces behaviours by priming behavioural concepts subliminally, below levels of consciousness.<sup>275</sup> The prolonged exposure to a

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<sup>272</sup> Yaacov Trope and Nira Liberman, 'Construal-level Theory of Psychological Distance' (2010) 117 *Psychological Review* 440.

<sup>273</sup> Paul Slovic and others, 'The Affect Heuristic' (2007) 177 *European Journal of Operational Research* 1333.

<sup>274</sup> Pennyappeal, 'South-African-orphan-with-food' <<https://pennyappeal.org/appeal/feed-our-world/donate-food-south-africa>> accessed 9 November 2023.

<sup>275</sup> Erin J Strahan, Steven J Spencer and Mark P Zanna, 'Subliminal Priming and Persuasion: Striking While the Iron is Hot' (2002) 38 *Journal of Experimental Social Psychology* 556.

stimulus, as the word ‘active’, is assumed to be sufficient for increasing a predisposition towards a specific linked action, unconsciously activating behavioural goals.<sup>276</sup>

Therefore, a nudge can affect System 1, System 2, or both, and the presence of a nudge can be perceived or unperceived. Following Susser’s definition, if a nudge affects System 1 and its presence is not perceived, it can be considered manipulative.

### 3.2 The Extent of PT’s Impact on Decision-Making Processes

As considered above, a nudge is a piece of architecture, a structure. To configure it, the designer must have knowledge concerning the existence of cognitive shortcuts and, therefore, of people’s cognitive biases and cognitive styles. Additionally, the designer must understand how these shortcuts can be triggered to modify people’s behaviour in a chosen, predictable way.

Nudges can occur in the digital context as much as in the analogue world. In the digital context, nudges evolved and became more powerful. According to the Eurostat data, the number of individuals who ordered or bought goods or services for private use online increased during the past ten years.<sup>277</sup> The increased use of online services has brought correspondent knowledge on possible peripheral routes to System 1 and the success of specific nudges regarding the users. This knowledge is acquired and used to persuade in the digital context. The same knowledge, however, can be used aiming not at persuading but manipulating the users via dark patterns, which will be addressed in the following section.

#### 3.2.1 Dark Patterns

Dark patterns are ‘practices in digital interfaces that steer, deceive, coerce, or manipulate consumers into making choices that often are not in their best interests’.<sup>278</sup> They are nudges based on *peithenanke* that operate online. These practices are the object of recent studies, and the knowledge regarding them is increasing with digital transformation.<sup>279</sup> According to a study released by the European Innovation Council and SMEs Executive Agency (EISMEA), the design of online interfaces brings a new capability to persuasion, different from human-human interaction. This capability shapes the

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<sup>276</sup> Charlie Pinder et al, 'Subliminal Priming of Nonconscious Goals on Smartphones' (Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct, Copenhagen, August 2015) <<https://dl.acm.org/doi/10.1145/2786567.2793707>> accessed 9 November 2023.

<sup>277</sup> ‘Eurostat 2023’ <[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics)> accessed 9 November 2023.

<sup>278</sup> EISMEA (n 46) 20.

<sup>279</sup> Christoph Bösch and others, 'Tales from the Dark Side: Privacy Dark Strategies and Privacy Dark Patterns' (2016) 2016 Proceedings on Privacy Enhancing Technologies 237; Arunesh Mathur and others, 'Dark Patterns at Scale: Findings from a Crawl of 11K Shopping Websites' (2019) 3 Proceedings of the ACM on Human-Computer Interaction 1.



possible actions available to individuals through applying persuasion via computation.<sup>280</sup> A dark pattern embeds knowledge about heuristics and biases in the technology to neutralise cognitive responses and defences to attempted persuasion. According to the EISMEA, how people react to persuasion attempts has already been studied via what has been called the Persuasion Knowledge Model, or PKM.<sup>281</sup> The mentioned Model studied the capacity of consumers to understand that they are the object of an attempt at persuasion and their ability to activate defensive mechanisms. However, according to the EISMEA, the PKM has been developed concerning traditional media, and it does not consider the interactive nature of the online experience. Online interaction absorbs a part of an individual's cognitive resources, leaving consumers in a flow state. In this state, individuals are entirely absorbed when an experience is genuinely satisfying. Their persuasion knowledge is neutralised.<sup>282</sup> In other words, while individuals would be able to activate defensive mechanisms during a face-to-face persuasion attempt, during the online experience, they are not.

The study gave a complete analysis of existent taxonomies of dark patterns, starting from the work of Brignull<sup>283</sup> and moving to the classification of Bösch.<sup>284</sup> The study analysed the work of Mathur, which identified 1818 dark patterns representing 15 types within seven broader categories,<sup>285</sup> and the work of Luguri and Strahilevitz, which simplified the taxonomy by concentrating on manipulation techniques.<sup>286</sup> The study also described Leiser and Yang's attempt, which proposed a four-level hierarchical taxonomy.<sup>287</sup>

The study identifies a new taxonomy of dark patterns based on a distinction between the component of the choice architecture affected by the unfair commercial practice and the component of the decision-making process that practice targets to promote behavioural change.<sup>288</sup> For what is relevant to this analysis, despite the possible taxonomy, it is helpful to report some of the identified dark patterns:

- **Nagging:** the repeated requests to do something via pop-ups or similar.

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<sup>280</sup> EISMEA (n 46) 20.

<sup>281</sup> M. Friestad and P. Wright, 'The Persuasion Knowledge Model: How People Cope with Persuasion Attempts' (1994) 21 *The Journal of Consumer Research* 1.

<sup>282</sup> EISMEA (n 46) 22.

<sup>283</sup> 'Deceptive Patterns' <[www.deceptive.design/](http://www.deceptive.design/)> accessed 9 November 2023.

<sup>284</sup> Bösch and others (n 279).

<sup>285</sup> Mathur and others (n 279).

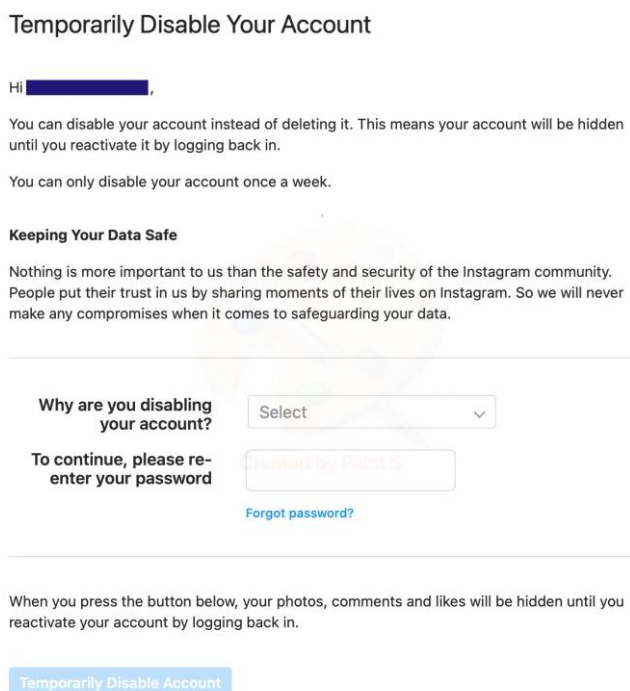
<sup>286</sup> Jamie Luguri and Lior Jacob Strahilevitz, 'Shining a Light on Dark Patterns' (2021) 13 *The Journal of Legal Analysis* 43.

<sup>287</sup> Mark Leiser and Wen-Ting Yang, 'Illuminating Manipulative Design: From 'Dark Patterns' to Information Asymmetry and the Repression of Free Choice Under the Unfair Commercial Practices Directive' (12 November 2022) <[osf.io/preprints/socarxiv/7dwuq](https://osf.io/preprints/socarxiv/7dwuq)> accessed 9 November 2023.

<sup>288</sup> EISMEA (n 46) 39.

- **Social Proof:** misleading notice about other consumers' actions or misleading statements from consumers.

- **Obstruction:** Roach Motel (an asymmetry between signing up and cancelling), price comparison prevention, using an intermediate currency (making available purchases in virtual currencies to obscure costs). Hereinafter is an example of Roach Motel taken from Instagram:



*Obstruction. Instagram*<sup>289</sup>

- **Sneaking:** put into basket items that consumers did not click on, costs obscured or disclosed late in the transaction, hidden subscription or unanticipated or undesired automatic renewal, or Bait and Switch (users are sold something different from what is advertised initially). Hereinafter, an example of sneaking taken from Ikea:

<sup>289</sup> 'Obstruction. Instagram' in *ibid*, 51.

Subtotal €126<sup>95</sup>

✓ Part of your order qualifies for FREE Delivery. [Learn more](#)

Proceed to checkout (5 items)

Add gift options



VASAGLE Standing Shelf, Bookshelves, 4 Tier Ladder Shelf, Sturdy...

€39<sup>99</sup>

In stock

Sent from: Songmics

Colour Name: Haselnussbraun + Schwarz

1

Delete

Save for later

[See more like this](#)



ERGO 2 years furniture protection from €30.00 to €39.99

€7<sup>49</sup>

In stock

Sent from: ERGO Direkt Versicherung AG

Qty: 1

Delete

*Sneaking. Ikea<sup>290</sup>*

- **Interface interference:** Hidden information / False hierarchy (important information visually obscured or ordered in a way to promote a specific option), Preselection (preselected default option), Toying with emotion (emotionally manipulative framing of the design), Trick questions (intentional or apparent ambiguity to confuse the user), Disguised Ad (Consumer induced to click on something that is not clearly an advertisement), Confirmshaming (choice framed in a way that seems dishonest/stupid for the consumer not to be chosen). Hereinafter is an example of Confirmshaming and Toying with emotions taken from Expedia:

Select Yes or No to continue booking\*

Yes, I want to add the Flight Protection Plan to my flight to Guarulhos.

\$45.21  
per person

No, I'm willing to risk my \$695.50 flight. I understand by declining this coverage that I may be responsible for cancellation fees and delay expenses personally or through alternate coverage.

Mary got \$468 back when she cancelled her flight to care for her sick husband.

“ I didn't know I would get a refund, thought I would get a credit with the same airline. It will make booking the trip easier, when my husband gets better. ”

-Mary C., Gloucester, VA

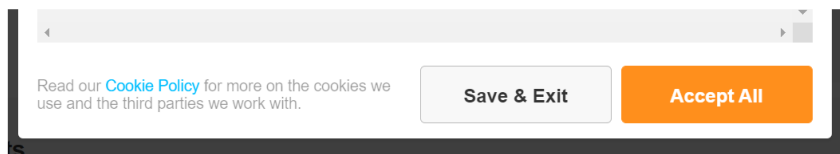
[Read less](#)

*Interface interference. Expedia<sup>291</sup>*

Hereinafter is an example of a false hierarchy:

<sup>290</sup> 'Sneaking. Ikea' in ibid 49.

<sup>291</sup> 'Interface Interference. Expedia' in ibid 54.



*False hierarchy*<sup>292</sup>

- **Forced action:** Consumers are tricked into thinking registration is necessary.
- **Urgency:** Low stock / high demand message (users falsely informed of limited quantities), Countdown timer / Limited time message (opportunity ends soon with false visual information). Hereinafter is an example of a countdown timer:



*Urgency. Shein*<sup>293</sup>

Therefore, a dark pattern consists of using nudges in the online world, with different techniques, to deceive, coerce, or manipulate individuals into making choices and to interfere in the decision-making processes of individuals using *peithenanke*, the unlawful use of persuasion.

### 3.2.2 Second Generation Dark Patterns. The Hypernudge

As stated above, a nudge and its online correspondent dark pattern rely on cognitive psychology, identifying the individual's shortcuts to System 1 and using them against the user. As previously considered, individuals make decisions with the pervasive use of cognitive shortcuts, which can be studied for a nudging purpose in the material world or online.<sup>294</sup>

A human being can have a certain amount of knowledge, which human nature limits. A human being can know what might direct individuals towards a particular choice, an awareness based on a general understanding of existing cognitive biases referred to the population in general. However, the cafeteria owner of the previous example knows that positioning a salad in front of a dessert will not affect all the customers, but just some of them. Not all individuals are triggered by that specific cognitive bias that makes some choose the easiest option. Therefore, a general nudge has limits,

<sup>292</sup> 'False Hierarchy' in *ibid* 57.

<sup>293</sup> 'Urgency. Shein' in *ibid* 47.

<sup>294</sup> Kahneman (n 156).

targeting the general population. In the example mentioned above, the cafeteria owner does not target a single individual to nudge them to eat healthy food, but everyone who enters the cafeteria.

However, what would happen if the cafeteria owner knew which cognitive biases trigger every customer and if the same owner adapted the environment accordingly in real-time should be considered. The nudge would be much more effective. A human being cannot have this knowledge and capacity to adapt. Instead, an AI has this ability.

Consequently, when the nudges are applied and used by an AI, the power of the nudges increases, bringing to what Yeung defines as hypernudges.<sup>295</sup> Yeung's work focuses on Big Data decision-making technologies, which are able to collect a vast amount of data on single users and find links between data items not otherwise observable. By using the knowledge acquired, these technologies can channel the user's response and decisions in directions chosen by the 'choice architect',<sup>296</sup> according to and adapting to the users' profile.

Yeung states that two different processes should be considered to understand how Big Data analytic techniques utilise nudges. The first kind of process is automated. It automatically issues a decision without human intervention (besides inputting some data from the user). In Yeung's opinion, it constitutes a form of action-forcing design. An example can be found in the ticket dispensing machines or in more complicated software, like those used by financial institutions to grant a loan.<sup>297</sup> The second kind of process is the 'Digital decision-guidance process'.<sup>298</sup> The individual, not the machine, makes the final decision. The algorithm identifies a decision-making process as optimal. After the identification, the algorithm offers suggestions to push the user towards a decision preferred and chosen by the choice architect. Even if the first kind of process can raise serious concerns, the type of processes on which Yeung and this analysis focus are the second.

To better understand the concept of hypernudge, various examples can be made. Yeung considers how Internet search engines operate. The user makes a query and, in response, Big Data analytic techniques mine millions of web pages in less than a second, evaluating their relevance for the user and ranking the results. Paying advertisements are ranked first. Google shows thousands of results; theoretically, the user can analyse every result. In reality, an individual is predisposed to visit the results shown on the first or second page (or screen after scrolling down).<sup>299</sup> What has just been stated is common knowledge. However, the mechanism has a more complex cognitive explanation. Google's algorithm exploits a cognitive bias, the priming effect.<sup>300</sup> The choice architecture, aware of

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<sup>295</sup> Yeung, 'Hypernudge' (n 48) 122.

<sup>296</sup> *ibid* 119.

<sup>297</sup> *ibid* 121.

<sup>298</sup> *ibid*.

<sup>299</sup> *ibid*; Frank Pasquale, 'Rankings, Reductionism, and Responsibility' (2006) 54 *Clev St LR* 115.

<sup>300</sup> Strahan, Spencer and Zanna (n 275).

this cognitive bias, seeks to nudge the user's behaviour towards a particular direction. For example, in the case of a Google search, showing the sponsored advertising space first in the research, Google aims to drive web traffic to certain advertisements instead of others.

According to Yeung, the result is significantly different when the nudge is used with the help of Big Data-driven technology. To better understand this difference, Yeung compares a simple nudge, such as a speed bump, to a Big Data-driven nudge, like Google Maps. While interacting with any of them, the driver is not forced to act according to the choice wanted by the choice architect. The driver can speed in the presence of a bump, and they can follow another route in the case of Google Maps. The difference between the two nudges resides in Google Maps' ability to change, find a new path, adapt to the user's choice, and nudge a new desired route. Degli Esposti considered that hypernudges allow nudges to operate dynamically via real-time data feeds used to personalise the outputs according to the user's actions.<sup>301</sup> This mechanism is a continuous feedback loop. The output feeds the input, constantly reconfiguring the choice architecture in real-time, according to the users' actions and following their interactions.

The hypernudge continuously moves and, according to Yeung, does it in three directions. Firstly, it refines the choice environment in response to changes in the user's behaviour and the environment in which the user operates, constantly expanding the user's profile. Then, the data feedback is collected to feed the application again. Thirdly, considering the population-wide Big Data, the target's environment is constantly monitored and refined.<sup>302</sup>

The hypernudge, therefore, even if based on a nudging process, collects its real power from the ability to determine algorithmically correlations between data that would not be observable through human cognition. Using this power (this ability that just an AI can have), the AI can continuously configure the user's environment, changing and constantly evolving and matching the user's data with statistical data based on the population, configuring the possible choices of the user to influence their decisions. Understandably, this power and ability will increase as the Internet of Things (IoT) devices take part in every area of daily life.<sup>303</sup> Not being confined to the screen of a computer, the AI will increasingly be able to collect data from any object connected to the internet, better profiling the users and feeding the machine learning to better hypernudge the users. Then, it must be considered that a hypernudge has another substantial difference from a simple nudge. While

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<sup>301</sup> Sara Degli Esposti, 'When Big Data Meets Dataveillance: The Hidden Side of Analytics' (2014) 12 *Surveillance & Society* 209.

<sup>302</sup> Yeung, 'Hypernudge' (n 48) 122.

<sup>303</sup> Scott R Peppet, 'Regulating the Internet of Things: First Steps toward Managing Discrimination, Privacy, Security and Consent' (2014) 93 *Tex LR* 85.

a speed bump can affect one or two vehicles simultaneously, an AI-driven hypernudge can affect millions of people simultaneously and without any territorial or language limitation.

At this point, comparing practical examples of nudge and hypernudge is helpful. A nudge can be found in labelling healthy food packages, setting fruits and vegetables nearer to a person in the buffet corner, and providing information about the amount of sodium or sugar. A hypernudge, instead, may consist of recommending purchasing healthier, lower sodium and sugar food based on the user's purchase history and health condition in the following shopping visit. A nudge can be found on a web shopping site that recommends storing the customer's credit card number to avoid entering the details again at the following shopping visit. Instead, a hypernudge can be found on the web shopping site recommending to the customer which of their credit cards they should use in this specific shopping. The nudge will give a general message in any of these examples, not using specific customised data. The hypernudge, instead, will provide customised recommendations or predictive messages based on personal information and Big Data.

Considering all the above, the EISMEA distinguishes between first-generation dark patterns and second-generation ones, following a distinction made by a report produced by the Service Research Center of the Karlstad University to the Swedish Consumers Agency.<sup>304</sup> The difference resides in the ability of the second generation dark patterns, via the use of Big Data and AI, to target group and individual preferences, connecting a set of dark patterns to personalisation.

A further distinction has to be made between segmentation and personalisation. Segmentation implies grouping individuals based on a given characteristic, such as age, gender, or location. Instead, personalisation involves tailoring an experience based on data on an individual, which may have been obtained through prior segmentation.<sup>305</sup> The same distinction can be found in the Report from the BEUC in 2022, which describes categorisations of personalisation techniques.<sup>306</sup>

According to all the above, the hypernudge, a second-generation dark pattern able to use segmentation and personalisation to connect dark patterns to a single individual, can empower the dark patterns exponentially. An AI can observe and exploit cognitive biases, using them to change and shape the desired behaviour chosen by the choice architecture in an unprecedented way, consistently different from a simple nudge.

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<sup>304</sup> Karlstad University, Service Research Center (CTF) 'Underlagsrapport 2021:1 Barriers to a well-functioning digital market Effects of visual design and information disclosures on consumer detriment' (2021) <<https://medvetenkonsumtion.se/wp-content/uploads/2021/05/Konsumentverket-underlagsrapport-barriers-digital-market.pdf>> accessed 9 November 2023.

<sup>305</sup> EISMEA (n 278) 33.

<sup>306</sup> Bureau Européen Des Unions De Consommateurs Aisbl, "'Dark Patterns" And The Eu Consumer Law Acquis - Recommendations for Better Enforcement and Reform' (07 February 2022) BEUC-X-2022-013.

### 3.2.3 Computational Manipulation and Decision-Making Processes

It has to be considered now which impact this unprecedented ability may have on individuals' decision-making processes. Even if individuals cannot be assumed to make a rational or the best choice,<sup>307</sup> a choice should be considered a choice only if it can be justified and explained by reference to reason.<sup>308</sup> A hypernudge aims to undermine the decision-making processes with a constant lack of transparency on the existence of the hypernudging and the mechanism's functioning.<sup>309</sup> Even if a nudge relies on some opacity, second-generation dark patterns such as hypernudges are, in their nature, made of complex algorithms, multiplying the opacity and the possibility of abuse.<sup>310</sup>

How a hypernudge operates differs significantly from any other nudging mechanism. An example will help a better understanding. When individuals interact with a salesperson, they usually first identify a possible seller using parameters like skills, qualifications, capacity, or reliability. Then, the buyer usually sets a list of requirements. Those requirements can reflect the client's taste or the population's trends. Instead, an algorithm that aims at selling interferes with the user's preferences, creating and shaping them, offering search engine results, video, audio or posts to induce or fit some interests that the AI has identified via a computational prediction. This mechanism operates before the user has identified a service or product, often even without the user asking for it. In the case of in-person selling, the clients communicate their needs, and then the seller tries to convince the client. In the case of hypernudge, the service (or product) is pushed automatically without the individual stating any preference but being those preferences predicted. The system, then, can continuously reconfigure itself in real-time to adapt to the interaction with the user, using the knowledge acquired regarding the user to identify their cognitive biases and styles and use them to hypernudge again. The algorithmic analysis of the user constantly expands the profile in a continuous acquiring information and nudging loop, tirelessly pushing towards the result chosen by the choice architect.

The question that should be asked is if the users are aware of the described mechanism. In front of a salesperson, a client is conscious of the salesperson's existence. With an algorithm, this might not be true. As Susser stated, adaptive choice architectures can subtly guide individuals towards certain ends in a way that can be defined as 'transparent'.<sup>311</sup> Susser uses the term not to mean that a user can see every part of the process but that the users cannot identify the existence of a hypernudge, seeing literally through it. Once individuals are used to technology, they no longer look at it as a tool to reach a purpose. Still, they look through it, solely seeing the information and activities behind the

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<sup>307</sup> Eliza Mik, 'The erosion of autonomy in online consumer transactions' (2016) 8 *Law, Innovation and Technology* 1, 6.

<sup>308</sup> Yeung, 'Hypernudge' (n 48) 124; Isaiah Berlin, *Four Essays on Liberty* (OUP 1969).

<sup>309</sup> Oren Bracha and Frank Pasquale, 'Federal Search Commission-Access, Fairness, and Accountability in the Law of Search' (2007) 93 *Cornell LR* 1149; Pasquale (n 196).

<sup>310</sup> Yeung, 'Hypernudge' (n 48) 123.

<sup>311</sup> Susser (n 19) 403.



technology. Therefore, technology becomes invisible, and a threat resides with this kind of transparency.<sup>312</sup> Not seeing that the interaction is mediated, users are exposed to manipulation. Susser explains this concept with a representative example. In the classic nudge theory, questions may arise, such as the following: shouldn't the cafeteria food items be positioned in a way that nudges individuals to select healthy food? Susser, instead, changes the perspective. In the hypernudge world, a different question should be asked: 'What if the cafeteria were arranged differently for every person who walked in the door?'.<sup>313</sup> This is not a question that can be asked in the physical world. Instead, changing a site's configuration according to the user is commonplace in the digital world. It is possible to change the options available to the single user, the digital environment in which the user operates, and constantly change it and frame it, producing different architectures for different users and for the same user in different moments. This phenomenon is well known as adaptive user interfaces.<sup>314</sup> Instruments such as ChatGPT will increasingly be able to create the perfect website, with perfect music, images and words according to the individual's cognitive profile.

The hypernudge relies on the technical possibility of a highly personalised choice environment that adapts to an individual's cognitive style. A hypernudge is far from a nudge and is characterised by what has been called *aggravating factors* of manipulation.<sup>315</sup> Following the previous example, according to the user's profile, an algorithm can determine which food will be in the cafeteria and what the cafeteria should look like. Algorithms, therefore, choose the options available and how those options are presented to individuals. This capability would not cause, per se, any harm. However, the damage is caused when the influence is hidden and transparent in the meaning underlined by Susser.<sup>316</sup> Zarsky, Calo and others described the possible use of data to provide tailored, manipulative content.<sup>317</sup> Following their thoughts, Susser considered the possible manipulative use of mobile health apps. These apps constantly gain data about users' physical activity, physiological metrics (heart rate, etc), and sleep patterns. Then they offer suggestions to improve healthy habits. However, this is not usually the sole purpose of the apps, and they attempt to nudge users to buy health-related goods or services.<sup>318</sup> Susser brings the Garmin Connect app as an example, which can detect how many steps

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<sup>312</sup> *ibid* 406.

<sup>313</sup> *ibid* 404.

<sup>314</sup> Dermot Browne, *Adaptive User Interfaces* (Elsevier 2016).

<sup>315</sup> Fleur Jongepier and Michael Klenk, *The Philosophy of Online Manipulation* (Taylor & Francis 2022).

<sup>316</sup> Susser (n 19) 406.

<sup>317</sup> Tal Z Zarsky, 'Privacy and Manipulation in the Digital Age' (2019) 20 *Theoretical Inquiries in Law* 157; Calo, (n 191); Gerhard Wagner and Horst Eidenmuller, 'Down by Algorithms: Siphoning Rents, Exploiting Biases, and Shaping Preferences: Regulating the Dark Side of Personalized Transactions' (2019) 86 *U Chi LR* 581; Jeannie Marie Paterson and others, 'The Hidden Harms of Targeted Advertising by Algorithm and Interventions from the Consumer Protection Toolkit' (2021) 9 *IJCLP* 1.

<sup>318</sup> Marijn Sax, Natali Helberger and Nadine Bol, 'Health as a Means Towards Profitable Ends: mHealth Apps, User Autonomy, and Unfair Commercial Practices' (2018) 41 *Journal of Consumer Policy* 103.

the user made during the day. If the app recognises the user has taken a few steps, it will show suggestions on healthy habits and graphics regarding an individual's health.<sup>319</sup> The manipulation issue arises when one of those suggestions is to buy a specific sleep program (because the user does not sleep enough) or a weight loss program. In this case, the users find themselves in front of a commercial embedded in health content, without knowledge of it, via a hypernudge obtained by analysing their health data.

The manipulative capability of a hypernudge can be better understood moving from the field of a simple app. This complex and unprecedented power is well described in the Cambridge Analytica scandal,<sup>320</sup> where personalised messages, obtained via profiling and based on user biases, have allegedly been delivered to US voters. Cambridge Analytica reportedly used data collected from hundreds of thousands of Facebook users. The data have been analysed and combined with data purchased from third-party data collectors. Personality profiles have been allegedly created on voters in several states, including the United States, the United Kingdom, France, Germany, and Kenya.<sup>321</sup> The use of Big Data, personalisation and profiling allegedly allowed politicians to deliver messages that hypernudge the users, according to their cognitive profile, towards the decision preferred by the choice architect. The message changed according to every single user's profile.

Another example of the unprecedented manipulative capabilities of the hypernudge can be found in the Cornell University Facebook experiment on the manipulation of emotions.<sup>322</sup> In this experiment, nearly 700000 unaware users were shown content on the news feed to test whether emotional exposure could lead people to change their posting behaviours. Some users were shown a preponderance of happy and positive words on the news feed for one week, while others were shown negative and sad content. At the end of the week, the manipulated users were more likely to post positive or negative content, according to those they had been previously exposed to, in a sort of emotional contagion.<sup>323</sup> As previously considered, emotions are Pathos, one of the elements of persuasion.<sup>324</sup>

Therefore, algorithmic-driven manipulation techniques differ from any form of manipulation individuals could have experienced. There are at least four differences between nudges and algorithmic-driven nudges. The first one can be found in web tracking technologies, like cookies, for example. They enable a large-scale collection of behavioural and cognitive data regarding single

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<sup>319</sup> Susser (n 19).

<sup>320</sup> Cadwalladr and Graham-Harrison (n 26); Zuboff (n 26) 130.

<sup>321</sup> Susser (n 19) 406.

<sup>322</sup> Frischmann and Selinger (n 189) 117.

<sup>323</sup> Adam DI Kramer, Jamie E Guillory and Jeffrey T Hancock, 'Experimental Evidence of Massive-Scale Emotional Contagion Through Social Networks' (2014) 111 Proceedings of the National Academy of Sciences 8788.

<sup>324</sup> See 2.4.2.

users, such as which sites they visit, when, for how long, how they interact and their preferences. A second difference consists of the ability of algorithm-driven architectures to target individuals or groups. This targeting may happen via different elements, such as location, demographic, psychometric, and behavioural characteristics. Moreover, algorithmic persuasion architectures can be adaptive. The last difference is that the reasons a specific message is delivered to a specific user cannot be precisely identified due to the algorithm's complexity behind the choice.<sup>325</sup>

Thus, algorithmic-driven manipulative techniques are different from any previous form of manipulation. Some complex software is under development, such as individual-like avatars<sup>326</sup> or software able to suggest the best words and content choices according to the cognitive profile of who will receive the message (eg, the app Crystal).<sup>327</sup> A generative AI such as ChatGPT can create text, images, music, video and entire websites adaptable to a single individual's profile. The abilities described above can create an AI persona tailored to a specific individual, their cognitive biases and style, unperceived and able to affect System 1, acting in, but even against, the user's interests at an unprecedented level.

Manipulation involves applying 'information technology that imposes hidden influences on users by targeting and exploiting decision-making vulnerabilities'.<sup>328</sup> A hypernudge matches this definition, consisting of a hidden infrastructure that can apply a hidden influence and aims to exploit decision-making vulnerabilities. Therefore, a hypernudge is powerful, unprecedented, possibly manipulative and transparent (in the meaning of non-seeable). The power of a hypernudge can interfere with the choices of individuals, which are shaped by an algorithm in decisions hypernudged for them, according to their cognitive profile. An AI-driven manipulative system can exploit individuals' cognitive biases and undermine their decision-making processes. Arguably, this can substantially negate an individual's right to self-determine their thoughts. This kind of manipulation, computational manipulation (CM), differs from any manipulation humans might have experienced. The legal perspective on CM will be addressed in the second macro section of this thesis, starting from the next chapter.

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<sup>325</sup> See references n 49.

<sup>326</sup> Ao Guo and others, 'A Personal Character Model of Affect, Behavior and Cognition for Individual-Like Research' (2020) 81 Computers & Electrical Engineering 106544.

<sup>327</sup> 'Crystal' <[www.crystalknows.com](http://www.crystalknows.com)> accessed 9 November 2023.

<sup>328</sup> Susser, Roessler and Nissenbaum, 'Online Manipulation' (n 210) 26.

# Chapter 4 Existing Legal Concerns and Legislation on CM

## 4.1 Introduction

According to what was stated in the previous chapter, an AI-driven system can profoundly affect individuals' decision-making processes using second-generation dark patterns, such as the hypernudge.<sup>329</sup> What will be discussed in this chapter is that the described ability to affect individuals' decision-making processes to manipulate the users has already been recognised as existing and considered relevant from a legal perspective. This analysis will consider the current legal concerns regarding CM and the consequences of its use. Multiple bodies considered CM, raising similar concerns about its use and impact on individuals.

Chapter 5 will then consider a common theoretical foundation in the concerns already expressed by multiple institutions, identifiable in the possible risk to the right to autonomy and similar, derived and overlapping rights. Chapters 6 and 7 will discuss if consent and contract law could be a possible defence in the field of CM, considering if existing doctrines related to consent and those related to a vitiated consent could be useful to protect the individuals' fundamental rights addressed in Chapter 5.

## 4.2 An Overview of the Existing Legal Concerns and Legislation Regarding CM

Multiple international, regional and local institutions have expressed concerns regarding emerging technologies using Big Data and AI-driven systems to manipulate human behaviours. It is helpful to identify what was already considered relevant at different levels to state that the issue of CM is recognised as existing and that its existence leads to the possible infringement of the right to autonomy and other related and overlapping rights discussed in Chapter 5. The following overview will provide the perspectives of the institutions that expressed significant thoughts regarding CM at an international, European, and national level. The following analysis is divided into four sections: UN (4.2.1), OECD (4.2.2), Europe (4.2.3), and National (4.2.4).

### 4.2.1 UN

Multiple UN-related bodies considered CM and recognised its capability of putting fundamental rights at risk.

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<sup>329</sup> See Chapter 3.

The United Nations Office of the High Commissioner for Human Rights (OHCHR) identified a link between the manipulation of human behaviour and the combined use of Big Data and AI. The OHCHR described AI's ability to use manipulation as unprecedented.<sup>330</sup> CM is depicted as a challenge capable of putting human dignity, autonomy and privacy at risk.<sup>331</sup>

According to the UN Secretary-General, using AI and its manipulative ability, including personalisation, profiling and targeting, endangers autonomy.<sup>332</sup> It interferes with knowledge, choice and control. It can supplant, manipulate or interfere with the ability of an individual to form and hold opinions, access ideas, or express them.<sup>333</sup> The UN Secretary-General's High-level Panel on Digital Cooperation report states that algorithms could manipulate choices.<sup>334</sup>

A Guide released by the United Nations Department of Economic and Social Affairs (UNDESA) considers the practice used by companies to acquire data of individuals for a specific purpose, profile them and tailor news feeds and advertisements.<sup>335</sup> The Guide identifies personalisation and profiling as possible instruments to trap individuals in an information bubble, causing different effects. One is echo chambers.<sup>336</sup> According to the Guide, AI algorithms can study individuals' interests and expose them repetitively to the same kind of content, reinforcing and shaping users' interests. Then, the Guide underlines a second effect called the filter bubbles.<sup>337</sup> An AI can narrow the scope of content users are exposed to. Users, therefore, will be exposed only to information and opinions that conform to and reinforce their beliefs without perception or exposure to different ideas. According to the Guide, filter bubbles and echo chambers impact fundamental rights. They may limit a person's right to obtain trustworthy information and freely form opinions, which are necessary for individuals to exercise freedom of expression.<sup>338</sup>

Similarly, the United Nations Educational, Scientific and Cultural Organization (UNESCO) stated that 'special attention should be paid to the possibility of using AI to manipulate and abuse human cognitive biases'.<sup>339</sup> The AI Advisory Body appointed by the UN referred to manipulation and nudging as risks related to human dignity, value and agency.<sup>340</sup>

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<sup>330</sup> OHCHR 'Report on the Right to Privacy in the Digital Age' (3 August 2018) UN Doc A/HRC/39/29, 2.

<sup>331</sup> *ibid* 2.

<sup>332</sup> UNGA 'Promotion and protection of the Right to Freedom of Opinion and Expression: Note by the Secretary-General' (29 August 2018) UN Doc A/73/348.

<sup>333</sup> *ibid* 19.

<sup>334</sup> UN Secretary-General's High-level Panel on Digital Cooperation 'The Age of Digital Interdependence' (June 2019) 17.

<sup>335</sup> UNDESA 'Resource Guide on Artificial Intelligence (AI) Strategies' (June 2021).

<sup>336</sup> *ibid* 7.

<sup>337</sup> *ibid*; Eli Pariser, *The Filter Bubble: What the Internet is Hiding from You* (Penguin 2011).

<sup>338</sup> UNDESA (n 335) 7.

<sup>339</sup> UNESCO 'Recommendation on the Ethics of Artificial Intelligence' (23 November 2021) SHS/BIO/PI/2021/1, Art. 125.

<sup>340</sup> UN Secretary-General's AI Advisory Body 'Governing AI for Humanity' (December 2023) 10.

Therefore, multiple UN-related bodies recognised the existence of manipulative AI and expressed the same concerns; while using AI to analyse the cognitive profiles of the users and manipulate human behaviours, fundamental rights connected to safeguarding human decision-making processes are in danger.

#### 4.2.2 OECD

Like the UN, the Organisation for Economic Co-operation and Development (OECD)<sup>341</sup> considered CM and recognised its capability of putting fundamental rights at risk.

The OECD, approving the Council Recommendation on Artificial Intelligence, adopted its Principles on Artificial Intelligence, which consists of international standards agreed upon by governments for the responsible use of AI.<sup>342</sup> Art. 1.2 of the Recommendation reflects the concerns of different UN bodies,<sup>343</sup> stating that AI actors should respect privacy, dignity, autonomy and freedom. According to Art. 1.3. of the Recommendation, AI actors should make the users perceive that they are interacting with an AI system and understand the outcome to preserve the mentioned fundamental rights.

The OECD mentioned CM, stating that consumer decision-making might be ‘more prone to manipulation through online advertising than other forms of advertising’.<sup>344</sup> The OECD noted that attempts to manipulate individuals have always existed.<sup>345</sup> In the OECD’s opinion, the difference between the past and the newly emerged technology can be identified in the quantity of information and the possibility of targeting a consumer in real-time. As stated by the OHCHR, the issue resides with the unprecedented degree of the AI’s abilities more than with the abilities themselves.<sup>346</sup>

The OECD expressed similar concepts and concerns in the ‘Roundtable on Dark Commercial Patterns Online’.<sup>347</sup> The mentioned document recognised the existence of dark patterns, stating a difference between dark patterns that are able to deceive and coerce and those that are able to manipulate the users.<sup>348</sup>

The OECD also proposed a definition of dark patterns that refers directly to autonomy and decision-making:

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<sup>341</sup> The OECD is an intergovernmental organisation. It works on international standards and solutions to social, economic and environmental challenges. ‘OECD’ <[www.oecd.org/about/](http://www.oecd.org/about/)> accessed 9 November 2023.

<sup>342</sup> OECD ‘Council Recommendation on Artificial Intelligence’ (22 May 2019) C/MIN(2019)3/FINAL 2.

<sup>343</sup> See 4.2.1.

<sup>344</sup> OECD ‘Online Advertising. Trends, Benefits and Risks for Consumers’ (January 2019) DSTI/CP(2018)5/FINAL, 6.

<sup>345</sup> *ibid* 28. See also Calo (n 191).

<sup>346</sup> See 4.2.1.

<sup>347</sup> OECD ‘Roundtable on Dark Commercial Patterns Online’ (19 February 2021) DSTI/CP(2020)23/FINAL.

<sup>348</sup> *ibid* 4. See also OECD ‘Consumer vulnerability in the digital age’ (3 July 2023) DSTI/CP(2021)7/FINAL.

Dark commercial patterns are business practices employing elements of digital choice architecture, in particular in online user interfaces, that subvert or impair consumer autonomy, decision-making or choice. They often deceive, coerce or manipulate consumers and are likely to cause direct or indirect consumer detriment in various ways, though it may be difficult or impossible to measure such detriment in many instances.<sup>349</sup>

Therefore, the UCPD, like the UN-related bodies mentioned above, recognises the existence of technologies able to manipulate users at an unprecedented degree, stating their capability of putting fundamental rights at risk and explicitly referring to the ability of dark patterns to subvert autonomy and decision-making.

### 4.2.3 Europe

In 2018, the EU released a strategy to regulate the use of AI centred on trust and protecting fundamental rights.<sup>350</sup> Since then, multiple European bodies have considered AI and PT-related issues, recognising the existence of manipulative PT and expressing similar concerns to those considered above.<sup>351</sup>

According to the European Group on Ethics in Science and New Technologies (EGE),<sup>352</sup> citizens are taken advantage of by using advanced nudging techniques, profiling, micro-targeting, tailoring and manipulation of choice architectures.<sup>353</sup>

Concerns regarding targeted advertising and nudging via AI are stated in the Briefing requested by the Internal Market and Consumer Protection Committee (IMCO)<sup>354</sup> for the European Parliament.<sup>355</sup> According to the IMCO, the combined capabilities of AI and Big Data can restrict the options available to individuals, influence opinions and manipulate individuals into making choices. In the IMCO's opinion, citizens are the object of a set of micro-decisions, not relevant individually

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<sup>349</sup> OECD 'Dark Commercial Patterns. OECD Digital Economy Papers n. 366' (October 2022) DSTI/CP(2021)12/FINAL, 16.

<sup>350</sup> Commission, 'Artificial Intelligence for Europe' (Communication) COM (2018) 237 final.

<sup>351</sup> See 4.2.1; Viktorija Morozovaite, 'Hyper nudging in the Changing European Regulatory Landscape for Digital Markets' (2022) Policy & Internet <<https://onlinelibrary.wiley.com/doi/10.1002/poi3.329>> accessed 8 November 2023.

<sup>352</sup> The EGE is an independent body appointed by the President of the European Commission, which advises on technology-related issues. 'EGE' <[https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/scientific-support-eu-policies/european-group-ethics\\_en#:~:text=European%20Group%20on%20Ethics%20in,of%20science%20and%20new%20technologies](https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/scientific-support-eu-policies/european-group-ethics_en#:~:text=European%20Group%20on%20Ethics%20in,of%20science%20and%20new%20technologies)> accessed 9 November 2023.

<sup>353</sup> European Group on Ethics in Science and New Technologies, *Statement on Artificial Intelligence, Robotics and 'Autonomous' Systems* (Publications Office 2018) 8.

<sup>354</sup> The IMCO is a committee of the European Parliament responsible for the legislative oversight of EU rules on the single market. 'IMCO' <[www.europarl.europa.eu/committees/en/imco/about](http://www.europarl.europa.eu/committees/en/imco/about)> accessed 9 November 2023.

<sup>355</sup> European Parliament, 'Artificial Intelligence: Challenges for EU Citizens and Consumers' (PE631.043, 2019).

but which, considered as a whole, may substantially impact society.<sup>356</sup> As already considered by the UNDESA,<sup>357</sup> according to the IMCO, filter bubbles and echo chambers can endanger the right to form an opinion.<sup>358</sup> In the IMCO's view, via the use of PT and nudging, there will increasingly be the possibility of triggering irrationality or vulnerability in consumers, possibly leading to actual harm.<sup>359</sup>

Similarly to the OECD, the MSI-AUT Study for the Council of Europe stated that the capacity to engage in manipulative practices has always existed; the recent emergence of powerful AI applications has exacerbated it.<sup>360</sup> The Study identifies some abilities of an AI used as PT (reliance on large datasets; capacity to generate insight from merging datasets; capacity to imitate human traits; capacity to personalise and configure individual choice environments; capacity to generate problems of collective action).<sup>361</sup> According to the MSI-AUT, these abilities have a relevant impact on the possibility of highly effective subtle manipulation with severe consequences for autonomy, cognitive sovereignty and freedom of expression and information.<sup>362</sup> Persuasive digital technologies 'can be used to manipulate and deceive individuals thus interfering with both informational and decisional privacy'.<sup>363</sup>

The Committee of Ministers also considered the manipulative capabilities of algorithmic processes via AI and recognised the relevance of Machine Learning.<sup>364</sup> The Committee stated that AI can predict choices, influence emotions and thoughts, and alter an anticipated course of action. This influence can happen subliminally.<sup>365</sup> Consequently, in the Committee's opinion, PT impacts cognitive autonomy and the right to make decisions.<sup>366</sup> References to manipulation and fundamental rights challenges can also be found in a Recommendation of the Committee of Ministers in 2020.<sup>367</sup>

According to the European High-Level Expert Group on AI, an independent expert group set up by the European Commission, PT impacts individuals' freedom to make decisions for themselves.<sup>368</sup>

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<sup>356</sup> *ibid* 5.

<sup>357</sup> See 4.2.1.

<sup>358</sup> *ibid*. See also Cadwalladr and Graham-Harrison (n 320).

<sup>359</sup> European Parliament, 'Artificial Intelligence' (n 355) 6.

<sup>360</sup> Council, 'A Study of the Implications of Advanced Digital Technologies (Including AI Systems) for the Concept of Responsibility Within a Human Rights Framework' (DGI (2019) 05, 2019) 35. The MSI-AUT is an interdisciplinary Committee of the Council of Europe. MSI-AUT <[www.coe.int/en/web/freedom-expression/msi-aut](http://www.coe.int/en/web/freedom-expression/msi-aut)> accessed 9 November 2023.

<sup>361</sup> *ibid* 21-25.

<sup>362</sup> *ibid* 8, 35.

<sup>363</sup> *ibid* 35.

<sup>364</sup> Committee of Ministers, 'Declaration by the Committee of Ministers on the Manipulative Capabilities of Algorithmic Processes' (Decl (13/02/2019) 1).

<sup>365</sup> *ibid* 8.

<sup>366</sup> *ibid* 9.

<sup>367</sup> Committee of Ministers, 'Recommendation CM/Rec(2020)1 of the Committee of Ministers to Member States on the Human Rights Impacts of Algorithmic Systems' (Recommendation) CM/Rec(2020)1, 4.

<sup>368</sup> High-Level Expert Group on Artificial Intelligence, 'Ethics Guidelines For Trustworthy AI' (8 April 2019) 10.



The Experts refer to manipulation as a threat to individual autonomy, self-determination, freedom of thought and privacy.<sup>369</sup>

The European Data Protection Board (EDPB)<sup>370</sup> published guidelines on dark patterns, aiming to provide recommendations and guidance for designing the interfaces of social media platforms to protect users.<sup>371</sup> The guidelines contain a list of dark patterns, defined in the document as ‘interfaces and user experiences implemented on social media platforms that lead users into making unintended, unwilling and potentially harmful decisions regarding processing their personal data’.<sup>372</sup> In the opinion of the EDPB, ‘dark patterns aim to influence users’ behaviour and can hinder their ability to protect their personal data and make conscious choices’ effectively.<sup>373</sup>

Finally, the behavioural study released by the EISMEA<sup>374</sup> for the European Commission contains a detailed history of dark patterns and their taxonomy.<sup>375</sup> According to the study, Dark patterns and manipulative personalisation can lead to financial harm, loss of autonomy and privacy, cognitive burdens, and mental harm.<sup>376</sup>

Therefore, as multiple UN-related bodies and the OECD did, multiple EU-related bodies recognised the existence of CM and its impact on the decision-making processes of individuals, stating its capability to put fundamental rights such as individual autonomy, self-determination, freedom of thought and privacy at risk.

#### 4.2.4 National Level

Similar concerns and conclusions to those expressed at international and European levels have also been represented at a national level.

The concept of dark pattern was considered by the Netherlands Authority for Consumers & Markets (ACM).<sup>377</sup> The ACM released a document regarding online persuasion techniques, including

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<sup>369</sup> *ibid* 12, 16.

<sup>370</sup> The European Data Protection Board (EDPB) is an independent European body established by the GDPR. ‘EDPB’ <[https://edpb.europa.eu/about-edpb/about-edpb/who-we-are\\_en](https://edpb.europa.eu/about-edpb/about-edpb/who-we-are_en)> accessed 9 November 2023.

<sup>371</sup> EDPB ‘Guidelines 3/2022 on Dark Patterns in Social Media Platform Interfaces: How to Recognise and Avoid Them’ (14 March 2022).

<sup>372</sup> *ibid* 2.

<sup>373</sup> *ibid*.

<sup>374</sup> The EISMEA is the Agency responsible for developing and implementing the European Innovation Council in the fields of SME.

European Commission, ‘European Innovation Council and SMEs Executive Agency (EISMEA)’ <[https://eisma.ec.europa.eu/index\\_en#:~:text=the%20single%20market,About%20EISMEA,policy%20and%20interregional%20innovation%20investments.](https://eisma.ec.europa.eu/index_en#:~:text=the%20single%20market,About%20EISMEA,policy%20and%20interregional%20innovation%20investments.)> accessed 9 November 2023.

<sup>375</sup> EISMEA (n 46).

<sup>376</sup> *ibid* 6.

<sup>377</sup> The ACM contributes to realising a healthy economy. ‘ACM’ <<https://www.acm.nl/en/authority-consumers-and-markets>> accessed 9 November 2023.

dark commercial patterns.<sup>378</sup> The Norwegian Consumer Council<sup>379</sup> referred to dark patterns and manipulation in a document concerning online advertising, recognising online manipulation and its impact on autonomy.<sup>380</sup>

In the UK, a Select Committee on Artificial Intelligence<sup>381</sup> released a document named ‘AI in the UK: ready, willing and able?’ for the House of Lords.<sup>382</sup> The paper is based on the report released by The Leverhulme Centre for the Future of Intelligence.<sup>383</sup> The report highlighted the risk that ‘sophisticated algorithms could be used to deliver tailored messages to large numbers of individuals to a degree impossible for traditional advertisers’.<sup>384</sup> According to The Leverhulme Centre, ‘such systems will increasingly blur the lines between offering, persuading and manipulating’.<sup>385</sup> In the Committee’s opinion, as stated by the OHCHR<sup>386</sup> and the OECD,<sup>387</sup> the issue concerning AI and possible manipulation is a matter of degree, defined as impossible to reach for traditional advertisers, being the AI able to blur the line between persuasion and manipulation. The Competition Market Authority (CMA)<sup>388</sup> has also considered dark patterns in two papers published in 2022.<sup>389</sup> As stated by the CMA, dark patterns can be particularly harmful since they can reduce consumers’ autonomy.<sup>390</sup> The UK also released on 29/03/2023 a white paper called ‘A pro-innovation approach to AI regulation’, which acknowledges, in the references in points 4 and 22, the risks of CM for autonomy

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<sup>378</sup> Netherlands Authority for Consumers & Markets ‘ACM Guidelines on the Protection of the Online Consumer – Boundaries of Online Persuasion’ (15 March 2023) <[www.acm.nl/en/publications/information-for-companies/acm-guideline/guidelines-protection-online-consumer](http://www.acm.nl/en/publications/information-for-companies/acm-guideline/guidelines-protection-online-consumer)> accessed 9 November 2023.

<sup>379</sup> The Norwegian Consumer Council is an independent interest body that assists consumers. ‘Norwegian Consumer Council’ <[www.consumersinternational.org/members/members/norwegian-consumer-council/](http://www.consumersinternational.org/members/members/norwegian-consumer-council/)> accessed 9 November 2023.

<sup>380</sup> Norwegian Consumer Council ‘Out of Control: How Consumers are Exploited by the Online Advertising Industry’, (24 January 2020) <<https://fil.forbrukerradet.no/wp-content/uploads/2020/01/2020-01-14-out-of-control-final-version.pdf>> 12, accessed 9 November 2023.

<sup>381</sup> The Select Committee on Artificial Intelligence was appointed by the House of Lords on 29 June 2017 ‘to consider the economic, ethical and social implications of advances in artificial intelligence’. ‘Select Committee on Artificial Intelligence for the House of Lords’ <<https://publications.parliament.uk/pa/ld201719/ldselect/ldai/100/10001.htm>> accessed 9 November 2023.

<sup>382</sup> Select Committee on Artificial Intelligence, ‘AI in the UK: Ready, Willing and Able?’ (HL 2017–19, 100).

<sup>383</sup> LCFI, ‘Written evidence (AIC0182). AI, Ethics and Governance’, (6 September 2017) <<https://data.parliament.uk/writtenevidence/committeeevidence/svc/evidencedocument/artificial-intelligence-committee/artificial-intelligence/written/69702.html>> Ib, accessed 9 November 2023. The written evidence refers to Michal Kosinski, David Stillwell and Thore Graepel, ‘Private Traits and Attributes are Predictable from Digital Records of Human Behavior’ (2013) 110 PNAS 5802 and to Wu Youyou, Michal Kosinski and David Stillwell, ‘Computer-based personality judgments are more accurate than those made by humans’ (2015) 112 PNAS 1036.

<sup>384</sup> *ibid* 81.

<sup>385</sup> *ibid*.

<sup>386</sup> See 4.2.1.

<sup>387</sup> See 4.2.2.

<sup>388</sup> The CMA is an Authority which helps promoting competitive markets and tackling unfair behaviour. ‘CMA’ <[www.gov.uk/government/organisations/competition-and-markets-authority/about](http://www.gov.uk/government/organisations/competition-and-markets-authority/about)> accessed 9 November 2023.

<sup>389</sup> CMA, ‘Online Choice Architecture: How Digital Design Can Harm Competition and Consumers’ (CMA 155, 2022); CMA, ‘Evidence Review of Online Choice Architecture and Consumer and Competition Harm’ (CMA 157, 2022).

<sup>390</sup> CMA, ‘Online Choice Architecture (n 389) 3.11

and decision-making processes of individuals.<sup>391</sup> The AI Safety Summit hosted in the UK in November 2023 also references CM and its unprecedented power.<sup>392</sup>

In Italy, on 23/02/2023, the GPD (the Italian Authority for the Protection of Personal Data) recognised the existence of dark patterns, fining a company for their use and recognising that they impact consent.<sup>393</sup>

Therefore, at a national level, different bodies recognised the existence of CM and its possible impact on an individual's autonomy, in line with what was expressed by the abovementioned international and EU bodies.

### 4.3 Existing and future EU legislation on PT and CM

The previous sections have considered multiple sources from different institutions, which recognised the existence of CM and stated its capability to put fundamental rights, such as individual autonomy, self-determination, freedom of thought, and privacy, at risk.

To assess the legal issues already identified in the field, it is worth considering in more detail the steps moved by the EU. The EU took the lead in discussing AI-related topics and regulating AI by adopting legislation and releasing the proposal for the so-called Artificial Intelligence Act (AIA).<sup>394</sup> As discussed in the following sections, the proposed AIA expressly refers to manipulation via AI in Art. 5.<sup>395</sup> The AIA also states that the existing data protection, consumer protection, and digital service legislation could cover other manipulative practices not addressed in the AIA.<sup>396</sup> EU legislation applies to the Italian system, and the AIA refers to EU legislation in the fields of data protection and consumer protection that is still present in the English System.<sup>397</sup> Analysing the EU approach to CM will help identify the current legal concerns in this field and the possible protection against CM.

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<sup>391</sup> Secretary of State for Science, Innovation and Technology (n 117).

<sup>392</sup> Department for Science, Innovation & Technology, 'Capabilities and Risks from Frontier AI. A Discussion Paper on the Need for Further Research into AI Risk' (October 2023) <<https://www.gov.uk/government/publications/frontier-ai-capabilities-and-risks-discussion-paper#:~:text=The%20UK%20government%20believes%20more,and%20reviews%20some%20key%20risks>> accessed 9 November 2023.

<sup>393</sup> GPD, Decision 51 February 2023.

<sup>394</sup> Commission, Proposal For A Regulation Of The European Parliament And Of The Council Laying Down Harmonised Rules On Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts (Proposal) COM (2021) 206 final.

<sup>395</sup> See 4.3.3.1.2.

<sup>396</sup> AIA 13.

<sup>397</sup> The UK took a different approach, choosing not to legislate in the field, as stated in: Secretary of State for Digital, Culture, Media and Sport, 'National AI Strategy' (Cmd 525).

Chapter 5 will then discuss the theoretical foundation of the need for protection against CM, as apparent from the legal concerns expressed at the international, regional and local levels described above (4.2) and the EU legislative approach described here (4.3).

### 4.3.1 The GDPR

As clearly expressed in the AIA,<sup>398</sup> which will be analysed further,<sup>399</sup> the first resource against CM is, in the eye of the EU, the General Data Protection Regulation, known as the GDPR, the EU legislation in data protection.<sup>400</sup>

The EDPB, aware of the theoretical relevance of the GDPR against CM, released a Guidance on Dark Patterns in 2022.<sup>401</sup> The Guidance considers Art. 5 GDPR (containing the principles relating to processing data) and different Dark Patterns and aims to guide the design of online platforms.<sup>402</sup>

The AIA states that the GDPR can be relevant against manipulation, specifically in the data acquisition phase.<sup>403</sup> CM relies on Big Data. In the absence of Big Data, CM would not be possible.<sup>404</sup> Therefore, the GDPR, which imposes rules on the acquisition and use of data, as well as the information that shall be given to the user, is a first protection against the use of data for CM purposes. Multiple provisions in the GDPR can be considered relevant. According to Art. 6 (1) a), the data subject should consent to process their personal data, and the purpose of the processing should be identified. According to Art. 13 (1) c), the user should be informed of the purposes of the processing for which the personal data are intended and the legal basis for the processing. Moreover, according to Art. 13 (2) f), the user should be informed of automated decision-making, including profiling.<sup>405</sup> The user should be given meaningful information about the logic involved, the significance, and the consequences of such processing for the data subject. According to Art. 15 h), the user has the right to be informed of the existence of automated decision-making, including profiling, referred to in Articles 22 (1) and (4) and, at least in those cases, meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject. The user shall then consent to the data acquisition in profiling, according to Art. 22 (2) c). Consent,

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<sup>398</sup> AIA 13.

<sup>399</sup> See 4.3.3.1.2.

<sup>400</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L119/1. See Zarsky (n 317).

<sup>401</sup> EDPB (n 371).

<sup>402</sup> *ibid* 6.

<sup>403</sup> Xiuyan Shao and Harri Oinas-Kukkonen, 'How does GDPR (General Data Protection Regulation) affect persuasive system design: design requirements and cost implications' in H. Oinas-Kukkonen and others (eds), *Persuasive Technology: Development of Persuasive and Behavior Change Support Systems. Persuasive 2019. Lecture Notes in Computer Science*, Vol 11433 (Springer 2019).

<sup>404</sup> See 3.2.2.

<sup>405</sup> Profiling is defined in Art. 4.4.

according to Art. 7 and Recital 32, should be given by ‘a clear affirmative act establishing a freely given, specific, informed and unambiguous indication of the data subject's agreement to the processing of personal data relating to him or her, such as by a written statement, including by electronic means, or an oral statement’. Consent<sup>406</sup> must meet the standards of being explicit, informed and specific. It should not regard just the data acquisition but should specifically concern the aim of the data acquisition and how this aim is to be achieved.<sup>407</sup> Therefore, the GDPR contains provisions theoretically able to ensure that the user is informed regarding the existence of CM and gives their consent.

However, profiling, and therefore the grounds of CM, will be allowed if consent is formally given under Art. 22 (2) c) GDPR.<sup>408</sup> The problem that may arise is that the users are often uninformed about the data acquisition process and the purpose of the acquisition.<sup>409</sup> The number of privacy-related information given daily renders it not probable, and maybe even impossible, for a user to read and understand every piece of information received. Sharing information with the consumer can be inefficient.<sup>410</sup> Therefore, the given consent can result in a formal agreement, an annihilation of an agreement deprived of actual consent.<sup>411</sup> It shall also be taken into account that, as considered by Ebers, if the GDPR might help against exploiting individuals' cognitive biases, it does not address remedies.<sup>412</sup>

Consequently, even if, as stated in the AIA, the GDPR may bring as a consequence that natural persons are appropriately informed and have the free choice not to be subject to profiling or other practices that might affect their behaviour,<sup>413</sup> the GDPR is still a not entirely effective remedy against CM used to induce an individual to enter into a contract. For what is relevant to this analysis, once a contract resulting from CM is entered into following a formal consent to the data acquisition, the user will be left with no remedy according to the GDPR. Moreover, if the data utilised for CM were acquired in violation of the GDPR and a contract signed after the illegitimate acquisition, that contract

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<sup>406</sup> For the concept of consent, see Chapter 6.

<sup>407</sup> EDPS, A Preliminary Opinion on Data Protection and Scientific Research (6 January 2020) 18.

<sup>408</sup> Federico Galli, 'Online Behavioural Advertising and Unfair Manipulation Between the GDPR and the UCPD' in Martin Ebers and Marta Cantero Gamito (eds), *Algorithmic Governance and Governance of Algorithms*, vol 1 (Springer 2020).

<sup>409</sup> Article 29 Data Protection Working Party, 'Opinion 15/2011 on the Definition of Consent' (13 July 2011) 18-19; Christine Utz and others, '(Un) informed Consent: Studying GDPR Consent Notices in the Field' (Proceedings of the 2019 ACM SIGSAC Conference on Computer And Communications Security) <<https://dl.acm.org/doi/10.1145/3319535.3354212>> accessed 9 November 2023; Midas Nouwens and others, 'Dark Patterns After the GDPR: Scraping Consent Pop-Ups and Demonstrating their Influence' (Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems, Honolulu 2020) <<https://dl.acm.org/doi/10.1145/3313831.3376321>> accessed 9 November 2023.

<sup>410</sup> Omri Ben-Shahar and Carl E Schneider, *More Than You Wanted to Know* (Princeton University Press 2014)

<sup>411</sup> Zuboff (n 26) 219. The relevance of consent and the issues connected with its notion and the objective test will be analysed in Chapter 6. Chapter 8 will discuss the relationship between consent, the GDPR and CM.

<sup>412</sup> Martin Ebers, *Contracting and Contract Law in the Age of Artificial Intelligence* (Hart Publishing 2022) 27.

<sup>413</sup> AIA 13.

would still be valid from a contract law perspective, leaving the manipulated party without a contractual remedy.<sup>414</sup>

In any case, the EU does not rely solely on the GDPR against CM but considers other legislation, as discussed in the following sections.

### **4.3.2 The UCPD and its Guidance**

In line with the abovementioned concerns regarding dark patterns and CM expressed at international, regional and local levels,<sup>415</sup> the EU reconsidered existing legislation and directly addressed CM in the field of consumer law.<sup>416</sup>

Section 4.3.2.1 will analyse the EU background in consumer protection to state that the EU legislation has taken into account the possible interference with the decision-making processes of individuals in the field of consumers, attempting to ensure that consent based on information, awareness and understanding is given.

Then, section 4.3.2.2 will analyse the recently released Guidance on the Interpretation of the Unfair Commercial Practice Directive (the UCPD, which regulates unfair business practices in EU law).<sup>417</sup> As it will be discussed further, the Guidance directly addresses CM and dark patterns, confirming the EU's willingness to consider the possible interference with the decision-making processes of individuals in the consumer field. However, the UCPD and its Guidance have limits, which will be addressed in section 4.3.2.3.

#### *4.3.2.1 The EU's Legal Background in the Field of Consumer Protection*

There are long-standing concerns in Europe about aggressive doorstep sales tactics, telemarketing, and other situations in which consumers are vulnerable, which reflect on correspondent EU policies such as:

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<sup>414</sup> See also Regulation of The European Parliament And Of The Council on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act) [2023] PE 49 2023 INIT. The Data Act, which is not yet in force, prohibits, at Art. 6, the use of dark patterns and manipulation to induce the users to limit their rights in sharing data. However, the same article refers only to the decision of data sharing with third parties, allows profiling if necessary for the service provided, and allows data sharing if the user consents to it. Moreover, the Data Act is without prejudice to contract law, according to Recital 9. For a possible role of the GDPR against CM, see 8.2.2.

<sup>415</sup> See 4.2.

<sup>416</sup> Consumer law provides protection to the consumer against issues like fraud or mis-selling when they purchase a product or service.

<sup>417</sup> Commission Notice – Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market [2021] OJ C526/1; Council Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council ('Unfair Commercial Practices Directive') [2005] OJ L149/22.

- 1) Unfair Commercial Practice Directive (UCPD).<sup>418</sup>
- 2) Consumer Rights Directive (CRD).<sup>419</sup>
- 3) Guidance on the interpretation and application of Article 6a of Directive 98/6/EC, c.<sup>420</sup>
- 4) Guidance on the interpretation and application of Council Directive 93/13/EEC, Unfair Contract Terms Directive.<sup>421</sup>

In the mentioned legislation and guidances, the EU considered the possible disbalance between a company and a consumer and the consequent need to protect consumers from being exploited in their cognitive biases.<sup>422</sup> The EU legislation obliges the company to give information regarding the products and the transaction, believing that, in some circumstances, the consumer's consent could be inadequately formed and that more information is needed to make a proper decision,<sup>423</sup> even if it has already been considered that such information might not be an adequate remedy.<sup>424</sup>

Moreover, the EU believes that consent could result from aggressive techniques and attempts to avoid it. For example, according to the UCPD, Articles 5, 6, 7, 8 and 9, a company should abstain from unfair commercial practices (perpetrated via misleading actions or omissions) and aggressive commercial practices.<sup>425</sup> Moreover, the EU believes that, in some circumstances, consumers need time to analyse contracts and think about their content to understand them properly.<sup>426</sup> The result is that according to Art. 6 of the CRD, the consumer shall have a period of 14 days to withdraw from a distance or off-premises contract without giving any reason.

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<sup>418</sup> *ibid.*

<sup>419</sup> Council Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council [2011] OJ L304/64.

<sup>420</sup> Commission Notice – Guidance on the interpretation and application of Article 6a of Directive 98/6/EC of the European Parliament and of the Council on consumer protection in the indication of the prices of products offered to consumers [2021] OJ C526/130.

<sup>421</sup> Commission notice — Guidance on the interpretation and application of Council Directive 93/13/EEC on unfair terms in consumer contracts [2019] OJ C323/4.

<sup>422</sup> According to Art. 2(a) of the UCPD, a ‘consumer’ means any natural person who, in commercial practices covered by the UCPD, is acting for purposes outside his trade, business, craft or profession. See Rossella Incardona and Cristina Poncibo, ‘The Average Consumer, The Unfair Commercial Practices Directive, and the Cognitive Revolution’ (2007) 30 *Journal of Consumer Policy* 21, 31; Jon D Hanson and Douglas A Kysar, ‘Taking Behavioralism Seriously: The problem of Market Manipulation’ (1999) 74 *NYUL Rev* 630; Anne-Lise Sibony and Geneviève Helleringer, ‘EU Consumer Protection and Behavioural Sciences’ in Fabrizio Esposito (ed), *Nudge and the Law: A European Perspective* (Hart Publishing 2015).

<sup>423</sup> Sibony and Helleringer (n 422); Incardona and Poncibo (n 422); Omri Ben-Shahar and Eric A Posner, ‘The right to withdraw in contract law’ (2011) 40 *The Journal of Legal Studies* 115; Omri Ben-Shahar, ‘The Myth of the ‘Opportunity to Read’ in Contract Law’ (2009) 5 *European Review of Contract Law* 1.

<sup>424</sup> Ben-Shahar and Schneider (n 410); Incardona and Poncibo (n 422).

<sup>425</sup> The content of the UCPD concerning PT will also be addressed in 4.3.2.2 and 4.3.2.3.

<sup>426</sup> Christian Twigg-Flesner, Reiner Schulze and Jonathon Watson, ‘Protecting Rational Choice: Information and the Right of Withdrawal’ in Geraint Howells, Iain Ramsay, and Thomas Wilhelmsson (eds), *Handbook of Research on International Consumer Law*, (2nd edn, Edward Elgar Publishing 2018) 111.

Therefore, in the mentioned legislation, the EU considered the information given to the consumer and the company's relationship with the consumer, trying to ensure that consent based on information, awareness and understanding is given.

The EU also tried to adapt to newly emerged commercial practices, constantly modifying its legislation. After the Communication 'A New Deal for Consumers', Directive (EU) 2019/2161 of the European Parliament and of the Council was published. This Directive amends the Unfair Contract Terms Directive and Price Indication Directive, UCPD and CRD.<sup>427</sup> The Directive (EU) 2019/2161, in Art. 49, expressly refers to techniques identifiable as dark patterns, such as fake reviews and endorsements.

Therefore, the EU legislation in the consumers' field took into account the possible interference with the decision-making processes of individuals, relying on consent based on information, awareness and understanding. Moreover, the EU aims at adapting existing legislation to newly emerging practices, as done with Directive (EU) 2019/2161, mentioned above, and via the Guidance on the application of the UCPD, which will be considered in the following section.

However, as it will be discussed further, the aim cannot be considered wholly reached, and the protection against CM leaves blind spots.

#### 4.3.2.2 *The Guidance on the interpretation and application of the UCPD*

In the previous section, it was considered the background in the field of consumers. It shall be noted that the abovementioned legislation on consumers assumes the possible interference with the decision-making processes of individuals but does not use the term manipulation. Instead, the European Commission, in 2021, published a Guidance on the interpretation and application of the UCPD, which considers data-driven practices and dark patterns and expressly refers to manipulation.<sup>428</sup>

In line with the abovementioned international, regional and local bodies,<sup>429</sup> the Commission recognised that persuading consumers has always existed and is essential to commercial practice. However, according to the Commission, the digital environment has changed the perspective, resulting in a new, unprecedented power connected to Big Data, AI and the ability to modify dynamically in real-time.<sup>430</sup>

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<sup>427</sup> Council Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules [2019] OJ L328/7.

<sup>428</sup> See n 417.

<sup>429</sup> See 4.2.

<sup>430</sup> Guidance on the UCPD 4.2.7.



The Commission defines the knowledge resulting from the newly emerged technological reality as superior, based on aggregated data about consumer behaviour and preferences and on the possibility of adjusting in real-time, continuously testing the effects of the practices on consumers to learn more about their behaviour.<sup>431</sup>

The Commission stated that such practices might often occur without the full knowledge of the consumer and makes a distinction between highly persuasive advertising or sales techniques and commercial practices that may be manipulative.<sup>432</sup>

The perspective from which the Commission addressed the problem of manipulation is that of an average or vulnerable consumer (or, if the practice is highly personalised, that of a single person who was subject to the specific personalisation). The Guidance focuses on vulnerable consumers and undue influence over them, resulting in an aggressive commercial practice prohibited under Art. 8 and Art. 9 of the UCPD.<sup>433</sup> The Commission considered exploiting a specific misfortune or circumstance of such gravity to impair the consumer's judgment, which the trader is aware of. Three examples are made in Guidance:

- A trader can identify that a teenager is in a vulnerable mood due to events in their personal life. This information is subsequently used to target the teenager with emotion-based advertisements at a specific time.
- A trader is aware of a consumer's history with financial services and that a credit institution has banned them due to the inability to pay. The consumer is subsequently targeted with specific offers by a credit institution to exploit their financial situation.
- A trader is aware of a consumer's purchase history concerning games of chance and random content in a video game. The consumer is subsequently targeted with personalised commercial communications that feature similar elements to exploit their higher likelihood of engaging with such products.<sup>434</sup>

The Guidance also generally addresses dark patterns.<sup>435</sup> The document underlines that the UCPD can be used to challenge the fairness of such practices, in addition to other instruments in the EU legal framework, such as the GDPR, and states that:

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<sup>431</sup> *ibid.*

<sup>432</sup> *ibid.*

<sup>433</sup> According to UCPD, Article 2 (j), undue influence means 'exploiting a position of power in relation to the consumer so as to apply pressure, even without using or threatening to use physical force, in a way which significantly limits the consumer's ability to make an informed decision'.

<sup>434</sup> Guidance on the UCPD 4.2.7.

<sup>435</sup> See 3.2.1 and 3.2.2.

any manipulative practice that materially distorts or is likely to distort the economic behaviour of an average or vulnerable consumer could breach the trader's professional diligence requirements (Art. 5), amount to a misleading practice (Art. 6-7) or an aggressive practice (Art. 8-9), depending on the specific dark pattern applied.<sup>436</sup>

According to the professional diligence referred to in Art. 5 UCPD, the Commission considered that traders should ensure that the design does not distort individuals' decisions. Some examples are then made in the Guidance of possible dark patterns relevant under UCPD Art. 6 and Art. 7 (such as visually obscuring important information or ordering it in a way to promote a specific option, or using trick questions and ambiguous language such as double negatives), or under Art. 8 (such as confirmshaming the consumer into feeling guilty).<sup>437</sup> A specific example of a dark pattern able to generate confusion is made in the document as follows:

During the ordering process in an online marketplace, the consumer is asked several times to choose 'yes' and 'no': 'Would you like to be kept informed about similar offers? Would you like to subscribe to the newsletter? Can we use your details to personalise our offer?' Halfway through the click sequence, the buttons 'yes' and 'no' are reversed intentionally. The consumer has clicked 'no' several times, but now clicks 'yes' and accidentally subscribed to a newsletter.<sup>438</sup>

The Commission also addressed default interface settings, such as pre-ticked boxes, including the charge for additional services. According to the Commission, such practices can also breach the UCPD and data protection and privacy rules.

The Guidance states then that practices labelled as dark patterns are already expressly prohibited and indicated in Annex I to the UCPD:

- 'Bait and switch' (5 and 6 Annex I);
- Fake countdowns (7 Annex I).
- Fake scarcity of the product (No 18 Annex I);
- Fake prizes (No 19 and 31 Annex I);

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<sup>436</sup> Guidance on the UCPD 4.2.7.

<sup>437</sup> See 3.2.1.

<sup>438</sup> Guidance on the UCPD 4.2.7.

- Fake free products (No 20 Annex I);
- Nagging (No 26 Annex I) (368);
- Misleading free trials and subscription traps.<sup>439</sup>

The Commission also considered the possible difficulty in unsubscribing in the following example, possibly in breach of Art. 7 and Art. 9 (d) UCPD:

In order to unsubscribe from a digital service, the consumer is forced to take numerous non-intuitive steps in order to arrive at the cancellation link. These steps include 'confirmshaming', whereby the consumer is prompted, without reasoned justification, to reconsider their choice through emotional messages several times ('We're sorry to see you go', 'Here are the benefits you will lose') and 'visual interference', such as prominent images that encourage the user to continue with the subscription instead of cancelling.<sup>440</sup>

Therefore, in the Guidance, in line with what was stated by multiple institutions referred to above, the concepts of CM and dark pattern are recognised, addressed, and regarded as possibly covered by the UCPD.<sup>441</sup> However, as discussed in the following section, the possible protection of the users is insufficient, as the UCPD cannot address every aspect of CM.

#### 4.3.2.3 *Some limits of the UCPD and the Guidance in addressing CM*

The UCPD, even as interpreted by the Guidelines, has relevant limits.

First of all, the UCPD is a Directive and not a Regulation. Directives require EU countries to achieve a specific result but leave them free to choose how to do so, resulting in the possible different formulation and content of concepts.<sup>442</sup> For example, Italy has received the UCPD via the so-called 'Codice del Consumo'.<sup>443</sup> Art. 20 (2) of Codice del Consumo should correspond to Art. 5 UCPD. However, in describing which commercial practices should be considered unfair, the Italian version of Art. 5 UCPD inserts a word in the article stating that the commercial practice should be regarded

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<sup>439</sup> *ibid.*

<sup>440</sup> *ibid.*

<sup>441</sup> See also Eli, *EU Consumer Law and Automated Decision-Making (ADM): Is EU Consumer Law Ready for ADM?* (ELI 2023), on manipulation through digital assistants and the UCPD.

<sup>442</sup> European Commission, 'Primary Versus Secondary Law' <[https://ec.europa.eu/info/law/law-making-process/types-eu-law\\_en](https://ec.europa.eu/info/law/law-making-process/types-eu-law_en)> accessed 9 November 2023. See also Consolidated version of the Treaty on European Union [2012] OJ C326/13.

<sup>443</sup> Decreto Legislativo 6 settembre 2005, n 206.

as unfair if it is contrary to professional diligence and is false. Art. 5 UCPD requires a material distortion of the consumer's behaviour, a concept not corresponding to the meaning of false.

The second issue is that even if the Guidance addresses dark patterns and CM, it is not binding.

Then, the UCPD applies to transactions involving a consumer, leaving outside of its scope transactions in which the other party is not a consumer. According to Art. 2 (a) of the UCPD, a 'consumer' means any natural person who, in commercial practices covered by the UCPD, acts for purposes outside his trade, business, craft or profession. Therefore, whenever a manipulative PT is used against an individual acting for purposes inside their trade, business, craft or profession, the UCPD will not apply. For example, a sole practitioner, such as a solicitor, who buys a computer for their firm will not be protected by the UCPD. Similarly, a manipulative PT used by a company against another company or by a professional against another professional will fall out of the scope of the UCPD.

Moreover, even if the UCPD seems to be able to address some forms of intentional manipulation, personalised CM practices that affect System 1 without deception remain outside the UCPD's provisions. From now on, this kind of CM will be referred to as CM of the second kind: CM2.

The UCPD focuses more on false statements, coercion and aggressive practices than CM2. The provisions in Arts 6–9 UCPD protect consumers against misleading actions, omissions, and aggressive practices, which rely on omitting information, deception or undue influence. Art. 8 UCPD, then, prohibits aggressive commercial practices that 'significantly impairs or is likely to significantly impair the average consumer's freedom of choice or conduct with regard to the product and thereby causes him or is likely to cause him to take a transactional decision that he would not have taken otherwise'. The description of the prohibited commercial practices seems similar to the manipulation concept identified in this analysis.<sup>444</sup> However, Art. 8 UCPD considers the use of harassment, coercion (including physical force) and undue influence, but not manipulation. Then, the UCPD in Annex 1 provides a list of presumed unfair activities. However, none of the currently listed activities adhere to CM2, ML-based personalised cognitive or emotional manipulation able to affect System 1 without deception or taking advantage of particular circumstances or minors.

Moreover, in its practical examples of manipulation and dark patterns reported above, the UCPD Guidance focuses on omitting information, deception or exploiting severe circumstances, such as age, non-access to credit or addiction to gambling.<sup>445</sup> However, as discussed above, CM does not necessarily rely on the absence of information, does not necessarily require deception nor the

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<sup>444</sup> See 3.1.1.

<sup>445</sup> See 4.3.2.2.

exploitation of severe circumstances, and may not even constitute pressure as required by Art. 2 UCPD (j).<sup>446</sup>

A possible scenario of CM2 is the following, which implies using an information bubble and combining Big Data, profiling, and manipulation. Party A, which sells e-cigarettes, acquired Big Data on Party B, which struggled with quitting smoking. The data were acquired in compliance with the GDPR with multiple privacy policies regularly signed. Party A analysed the data and profiled Party B at a segmentation level and, via interaction, at a personalisation level.<sup>447</sup> Party B constantly wears a watch that analyses the heartbeat and can geolocalise who is wearing it. Party A discovered that Party B is sensitive to some specific cognitive biases and found that arguing with their father triggers an emotional reaction in Party B, resulting in shopping.<sup>448</sup> Party A, for several months, showed Party B content on different platforms regarding Party A's e-cigarette, showed Party B's friends using it on social media and also content concerning the Government Health Policy<sup>449</sup> on quitting smoking via the use of e-cigarettes, shaping and reinforcing in an information bubble the need for an e-cigarette according to Party B's cognitive biases. One day, Party B argues with their father and writes about the arguing in a post on social media. Party B then goes for a walk, still in an emotional state, even if the circumstances are not severe. The heartbeat is higher than average, and the watch collects the data, including the geolocalisation. When Party B is near an e-cigarette shop, a suggestion is pushed on Party B's phone, which shows the e-cigarette sold by Party A and represents an existing commercial showing a famous influencer followed by Party B, who fights and then relaxes smoking the e-cigarette. Party B enters the e-cigarette shop and buys the e-cigarette sold by Party A.

Borrowing Mik's words and applying them to this scenario, CM2 looks like a cat, even if it is genetically modified and more similar to a lion, having computational power on its side.<sup>450</sup> In this scenario, Party A, using the knowledge and ability that just an AI-driven system can have, deliberately designed and presented the options available to Party B to exploit decision-making biases to nudge the counterparty to the option preferred by the choice architect, encouraging Party B to enter into a contract 'by identifying the potential needs to be met by the contract'<sup>451</sup> and hypernudging a pre-chosen result. Party B chose the predicted option and agreed. Being based on personalised CM practices that affect System 1 without deception, the scenario described here remains outside the UCPD's provisions.

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<sup>446</sup> See 3.1 and 3.2.

<sup>447</sup> See 3.2.2 for segmentation and personalisation.

<sup>448</sup> See 2.4 and Chapter 3.

<sup>449</sup> UK Government, 'E-cigarettes and vaping policy' <[www.gov.uk/government/collections/e-cigarettes-and-vaping-policy-regulation-and-guidance#england%E2%80%99s-policy-on-e-cigarettes](http://www.gov.uk/government/collections/e-cigarettes-and-vaping-policy-regulation-and-guidance#england%E2%80%99s-policy-on-e-cigarettes)> accessed 9 November 2023.

<sup>450</sup> Eliza Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (2016) 8 *Law Innovation & Tech* 1, 23, referring also to Lawrence Lessig, 'The Law of the Horse: What Cyberlaw Might Teach' (1999) 113 *HLR* 501.

<sup>451</sup> Ebers (n 412) vi preface.

The general clause in Art. 5 UCPD might open the possibility of including CM2.<sup>452</sup> However, it shall be underlined that Art. 5 requires two elements:

- a breach of professional diligence (Section 3.2.1), and
- a material distortion of consumer decision-making (Section 3.2.2).

According to art. 2 (h) UCPD, professional diligence means ‘the standard of special skill and care that a trader may reasonably be expected to exercise towards consumers, commensurate with honest market practice and/or the general principle of good faith in the trader's field of activity’.

Determining what constitutes professional diligence in practice could be problematic, considering that every seller will be expected to try to persuade a customer. Indeed, it has been stated that the intentional targeting of cognitive biases should be considered a violation of professional diligence.<sup>453</sup> However, it is questionable if a seller should inform the customer of the specific cognitive biases affecting their decision.

Moreover, a violation of professional diligence could be erased by an expression of consent to targeting, profiling and persuasion, which could happen during the data acquisition phase and following the rules of the GDPR.<sup>454</sup> It shall be underlined that, as considered above, profiling and CM will be allowed if consent is formally given under the GDPR.<sup>455</sup> Therefore, as considered above,<sup>456</sup> the GDPR's stats as an effective solution against manipulative PT is questionable, and Art 5's applicability is reduced, possibly completely.

It shall then be considered that Art. 5 UCPD requires a material distortion, as described in Art. 2 (e) UCPD. A material distortion is described in the Article as an impairment of the ability to make an informed decision. The impairment causes the consumer to make a decision that they would not have made otherwise. Regarding this second requirement, it should be considered that standard marketing practices use cognitive and emotional effects as part of advertisers' attempts to push consumers toward a specific purchase decision, such as using images of children, attractive features, stories or music to sell products.<sup>457</sup> As previously considered in this analysis, nudges are well-known in the literature.<sup>458</sup> Therefore, understanding when the threshold to material distortion is passed could

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<sup>452</sup> Philipp Hacker, 'Manipulation by Algorithms. Exploring the Triangle of Unfair Commercial Practice, Data Protection, and Privacy Law' (2021) *European Law Journal* 1.

<sup>453</sup> Jan Trzaskowski, 'Behavioural Innovations in Marketing Law' in Hans-W Micklitz, Anne-Lise Sibony and Fabrizio Esposito (eds), *Research Methods in Consumer Law* (Edward Elgar Publishing 2018); Hacker (n 452).

<sup>454</sup> Hacker (n 452) 16.

<sup>455</sup> Galli (n 408).

<sup>456</sup> See 4.3.1.

<sup>457</sup> Regarding marketing practices and the impact on consumers, see Trzaskowski (n 453); Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450); Hanson and Kysar (n 422); Reka Pusztahelyi, 'Emotional AI and its Challenges in the Viewpoint of Online Marketing' (2020) 81 *Curentul Juridic, The Juridical Current, Le Courant Juridique* 13.

<sup>458</sup> See 3.1.2.1.

be complex.<sup>459</sup> On the one hand, marketing is a necessary part of the economy. Conversely, a limit to what is acceptable in persuading consumers should be settled. Considering what was stated in Chapters 2 and 3 of this analysis, a material distortion could be regarded as present if System 2 (the rational system) is completely overridden by System 1 (the primordial system). According to the Guidance,<sup>460</sup> however, this threshold is considered in the UCPD not from the perspective of the specific consumer part of the manipulative process but from the perspective of an average consumer, a reasonably well-informed, reasonably observant, and circumspect person.<sup>461</sup> As acknowledged in *Teekanne*, the average consumer of EU law may be prone to ignore or misunderstand important information.<sup>462</sup>

The concept of the average consumer considered by the UCPD appears adequate concerning commercial practices directed to the average public at a segmentation level. When a company uses statistics to understand the possible weaknesses of the general public and tries to persuade the general public, considering a statistically average individual as a parameter to define which practice is unfair is appropriate. Instead, the perspective of an average consumer does not seem reasonable at a personalisation level.<sup>463</sup> Contrasting granularity and individualisation with statistics is not an efficient action. If the company does not rely on statistics but on the personalised profile of a single individual, and if the company does not target the general public but a specific individual, the concept of an average consumer ceases to be efficient in contrasting possibly unfair practices. Personalised commercial manipulations should be considered from a personalised, not average, perspective. The unfair commercial practice should be analysed from the perspective of the single targeted individual.

Moreover, it shall be taken into account that, in the presence of expressed written consent, the threshold of an average person will not be considered as passed under an objective test, which will be discussed in Chapter 6.<sup>464</sup>

Consequently, the UCPD and its Guidance are not a complete shield against CM2.

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<sup>459</sup> Galli (n 408) 88; Natali Helberger, 'Profiling and Targeting Consumers in the Internet of Things-A New Challenge for Consumer Law' (Digital Revolution: challenges for contract law in practice Conference, Munster 2016) <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2728717](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2728717)> accessed 9 November 2023.

<sup>460</sup> Guidance on the UCPD 4.2.7.

<sup>461</sup> Hacker (n 452) 19 referring to Case C-210/96, *Gut Springenheide and Tusky* [1998] ECR I-04657, para 31.

<sup>462</sup> Case C-195/14, *Bundesverband der Verbraucherzentralen und Verbraucherverbände - Verbraucherzentrale Bundesverband e.V. v Teekanne GmbH & Co. KG*. [2015] OJ C236/16, para. 36–41. On the average consumer, see Galli (n 408); Incardona and Poncibo (n 422); Helberger (n 459).

<sup>463</sup> See EISMEA (n 46) 33.

<sup>464</sup> See 6.3.1.3 and 6.4.

#### 4.3.2.4 *Final observations regarding the UCPD and the Guidance*

According to all the above, the EU, in line with what was stated by international, regional, and local bodies,<sup>465</sup> has recognised the existence of CM and has attempted to protect the users not just with the GDPR<sup>466</sup> but also with the legislation regarding consumers and its interpretation.

As considered above, EU legislation in the consumer field considers possible interference with the decision-making processes of individuals, relying on consent based on information, awareness, and understanding.<sup>467</sup> Moreover, the EU aims to adapt existing legislation to newly emerging practices.<sup>468</sup>

As discussed above, some applications of PT and manipulative PT could be considered relevant under the UCPD, with the abovementioned limits.<sup>469</sup> Consequently, in the single member states that received the UCPD, consumers will find local remedies against a PT that operates with coercion or deception or exploits severe circumstances. However, non-consumers and some applications of CM, specifically CM2, remain out of the scope of the UCPD, as in the example of the e-cigarette.

In order to proceed with this analysis, it shall now be considered that, as mentioned above,<sup>470</sup> in the field of CM, the EU released the AIA, which states that the existing data protection, consumer protection, and digital service legislation could cover other manipulative practices not addressed in the AIA.<sup>471</sup> Data protection and consumer protection legislation have been considered above.<sup>472</sup> The following section will consider the digital service legislation and the AIA provisions in the CM field. From the analysis, it will be apparent that the EU recognised the existence of CM as interfering with individuals' decision-making processes. Moreover, the EU's scheme in protecting against CM and the limits of existing EU legislation in protecting individuals from CM will be apparent.

Chapter 5 will consider the common theoretical foundation in the concerns already expressed by multiple international, regional (EU) and local entities. Then, Chapter 6 will discuss whether consent and contract law could be a viable defence against CM, as it appears the EU has already been considering releasing the Guidance on the UCPD analysed above.

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<sup>465</sup> See 4.2.

<sup>466</sup> See 4.3.1.

<sup>467</sup> See 4.3.2.1.

<sup>468</sup> See 4.3.2.1 and 4.3.2.2.

<sup>469</sup> See 4.3.2.3.

<sup>470</sup> See 4.1.

<sup>471</sup> AIA 13.

<sup>472</sup> See 4.3.1 and 4.3.2.



### 4.3.3 DSA, DMA, and AIA.

In line with the concerns underlined above but willing to encourage AI development, in February 2020, the Commission published a White Paper on AI, aiming to achieve a trustworthy use of AI to protect individuals' rights.<sup>473</sup> In its strategy, the EU considers the Collingridge dilemma, according to which the potential benefits of new technology are accepted before knowing its potential risks.<sup>474</sup> However, as soon as enough is known about them, interests in the success of technology are so fortified that any regulatory effort will be resisted.<sup>475</sup> Therefore, the EU aims to expose the possible harms related to AI and regulate them, preserving trust. As stated in the White Paper, while AI can help protect citizens' security and enable them to enjoy their fundamental rights, it can have unintended effects or be used for malicious purposes, resulting in possible harm. According to the White Paper, this harm might be material (safety and health of individuals, property damage) and immaterial (loss of privacy, limitations to the right of freedom of expression, discrimination) and can relate to various risks.<sup>476</sup> As considered above, similar concerns about the possible consequences of using AI have been expressed by multiple bodies with specific reference to CM.<sup>477</sup>

Following the release of the White Paper, different pieces of legislation were released, namely the Digital Services Act (DSA)<sup>478</sup> and the Digital Markets Act (DMA),<sup>479</sup> together with the abovementioned proposal for the AIA. The content of the DSA, the DMA and the AIA that refers to CM will be discussed in this section.

Even if admirable, the EU's attempt to legislate results in numerous shortcomings in protecting individuals against CM, as will be considered in the following sections.

#### 4.3.3.1.1 DSA and DMA

To regulate the possible impacts of AI on fundamental rights, the EU published the DSA and the DMA. These two acts aim to ensure that recommendation algorithms can be considered safe and transparent, in line with the need for trust in AI underlined in the White Paper. Both acts expressly

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<sup>473</sup> Commission, 'White Paper on Artificial Intelligence - A European Approach to Excellence and Trust' COM (2020) 65 Final.

<sup>474</sup> David Collingridge, *The Social Control of Technology* (Frances Pinter 1980).

<sup>475</sup> Morag Goodwin, Bert-Jaap Koops and Ronald Leenes, *Dimensions of Technology Regulation* (Wolf Legal Publishers 2010) 2.

<sup>476</sup> Commission, 'White Paper on Artificial Intelligence' (n 473) 10.

<sup>477</sup> See 4.2.

<sup>478</sup> Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act) [2022] OJ L277/1.

<sup>479</sup> Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] OJ L265/1.

refer to CM, recognise dark patterns and state that they can subvert or impair user autonomy, decision-making, or choice.

#### 4.3.3.1.1.1 DSA

The DSA entered into force on the 1<sup>st</sup> of November 2022 and will be applied from 17 February 2024, with a first partial application in August 2023. The DSA focuses on online social networks and platforms that allow consumers to conclude distance contracts with traders and, as stated in Recital 1, are used by individuals daily. The DSA aims to ensure a safe, predictable, and trustworthy online environment, as indicated in Recital 12, taking information and online content specifically into account.

The DSA takes directly into account dark patterns in Art. 25, stating that ‘providers of online platforms shall not design, organise or operate their online interfaces in a way that deceives, manipulates or otherwise materially distorts or impairs the ability of recipients of their service to make free and informed decisions’.

However, as stated in Recital 67, Art. 25 should not be understood as preventing providers from interacting directly with service recipients and offering new or additional services to them. Advertising compliant with EU law should not be regarded as constituting dark patterns.

Art. 25, consequently, should be interpreted as covering prohibited practices falling within the scope of the DSA, and it shall be considered that this provision refers to and applies solely to platforms: for example, social networks, content-sharing platforms, app stores, and online travel and accommodation platforms. An online platform is defined in Art. 2 (i) as

a hosting service that, at the request of a recipient of the service, stores and disseminates information to the public unless that activity is a minor and purely ancillary feature of another service or a minor functionality of the principal service and, for objective and technical reasons, cannot be used without that other service, and the integration of the feature or functionality into the other service is not a means to circumvent the applicability (...)

of the DSA. In other terms, it is questionable if the DSA considers under Art. 25 the websites of sellers or intermediary services.

Furthermore, in Art. 25, there are exemplified dark patterns (such as nagging and complex unsubscribing), which are not manipulative second-generation dark patterns in the meaning referred to above of being hidden and able to affect System 1: CM2.

Then, Art. 25 (2) states that the prohibition in paragraph 1 shall not apply to practices covered by the UCPD or the GDPR. Therefore, it is a subsidiary provision. With this regard, it shall be taken into account that, as considered above, the UCPD refers just to consumers and does not address dark patterns, addressed by the abovementioned Guidance, with the limits described above.<sup>480</sup> Similarly, the GDPR does not consider dark patterns and has the mentioned shortcomings.<sup>481</sup> Therefore, CM2 does not fall under the shield of the DSA, the GDPR or the UCPD.

The DSA in Art. 26 then imposes sharing information with the consumer regarding which criteria are used for personalisation, as stated in Recital 70. However, it has already been considered that sharing information with the consumer is inefficient in preventing manipulation.<sup>482</sup>

It shall also be considered that according to Art. 19, Articles 25 and 26 do not apply to providers qualifying as small or micro-enterprises, allowing such enterprises to use dark patterns.

The DSA considers disinformation, imposing ‘very large’ platforms and ‘very large’ search engines to make a risk assessment regarding potential manipulation of the users (Art. 34) by third parties. Even if this provision is relevant to this analysis, its limits are apparent. A risk assessment is not equivalent to a prohibition or obligation to control the use of the platform, and the risk assessment applies uniquely to ‘very large’ platforms and search engines, such as Meta or Google.

In any case, it shall be noted that Recital 67 DSA (following what was considered by the different bodies referred to above)<sup>483</sup> states that nudging can distort or impair the recipients’ ‘autonomy, decision-making, or choice’.

#### 4.3.3.1.1.2 DMA

As stated in Art. 1, the purpose of the DMA is to

(...) contribute to the proper functioning of the internal market by laying down harmonised rules ensuring for all businesses, contestable and fair markets in the digital sector across the Union where gatekeepers are present, to the benefit of business users and end users.

A gatekeeper is defined in Art. 2 (1) as an undertaking providing core platform services, such as intermediation, search engines, virtual assistants, or others identified in Art. 2 (2) designated according to Art. 3.

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<sup>480</sup> See 4.3.2.3.

<sup>481</sup> See 4.3.1.

<sup>482</sup> Incardona and Poncibo (n 422) 24; Ben-Shahar and Schneider (n 410).

<sup>483</sup> See 4.2.

Art. 3 states that an undertaking shall be designated as a gatekeeper if

(...) (a) it has a significant impact on the internal market; (b) it provides a core platform service which is an important gateway for business users to reach end-users; and (c) it enjoys an entrenched and durable position, in its operations, or it is foreseeable that it will enjoy such a position in the near future.

The DMA considers personalised advertising and consent in recital 37, stating rules for ensuring that consent to advertising is freely given.

The DMA refers to the decision-making processes in Recital 70 and Art. 13 (6), in which it is stated that gatekeepers should not engage in behaviour that would undermine the effectiveness of the prohibitions and obligations laid down in the DMA. Specifically, the behaviours not permitted are the design, ‘the presentation of end-user choices in a non-neutral manner, or using the structure, function or manner of operation of a user interface or a part thereof to subvert or impair user autonomy, decision-making, or choice’. It is not clear, however, what the meaning of non-neutral is, and the second part of the provision is limited to the interface and does not consider the content. Therefore, hypernudging via personalised content without modifying the interface is not prohibited, as in the example of the e-cigarette made above.<sup>484</sup> The DMA also considers a dark pattern in Recital 63, stating that gatekeepers should not make it unnecessarily complicated for business users or end users to unsubscribe.

Even if the mentioned provisions help address CM, they refer uniquely to gatekeepers, leaving out of their scope of action every operator not identifiable as a gatekeeper as defined above. As it happened for the DSA, websites are, for example, not considered under this provision. Moreover, small companies are out of the scope of this legislation. Therefore, they can use dark patterns and will not fall under the radar of the DMA.

In any case, it shall be underlined that the DMA, following what was considered by the different bodies referred to above,<sup>485</sup> states in Recital 70 and Art. 13 (6) that an interface can distort or impair the recipients' autonomy, decision-making, or choice.

#### 4.3.3.1.2 AIA

In April 2021, the Artificial Intelligence Act (AIA) was released. The AIA is the first attempt to legislate in the field of AI at the EU level, and it is at the centre of the legal debate regarding the

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<sup>484</sup> See 4.3.2.3.

<sup>485</sup> See 4.2.

possibility of legislating on Artificial Intelligence.<sup>486</sup> It establishes a list of prohibited AIs, following a risk-based approach. The list of banned practices comprises all those AI systems whose use is considered unacceptable because they can violate fundamental rights.

Modifications to the text have been proposed<sup>487</sup> and approved by the European Parliament on 14/06/2023.<sup>488</sup> The Proposal addresses CM in Art. 5 (1)(a) stated in its first version that shall be prohibited:

the placing on the market, the putting into service or the use of an AI system that deploys subliminal techniques beyond a person's consciousness to materially distort a person's behaviour in a manner that causes or is likely to cause that person or another person physical or psychological harm.

The new version of Art. 5 (1) (a) now states that it is prohibited:

the placing on the market, putting into service or use of an AI system that deploys subliminal techniques beyond a person's consciousness or purposefully manipulative or deceptive techniques, with the objective to or the effect of materially distorting a person's or a group of persons behaviour by appreciably impairing the person's ability to make an informed decision, thereby causing the person to take a decision they would not have taken otherwise in a manner that causes or is likely to cause that person, another person or group of persons significant harm.

The Proposal, in the new version, still refers to a particular type of manipulation, the subliminal one. The Impact Assessment made by the Commission justified the choice by stating:

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<sup>486</sup> See for example Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act—Analysing the Good, the Bad, and the Unclear Elements of the Proposed Approach' (2021) 22 *Computer LR International* 97; Nathalie A Smuha and others, 'How the EU Can Achieve Legally Trustworthy AI: a Response to the European Commission's Proposal for an Artificial Intelligence Act' (2021) *Social Science Research Network*, 5 August <<https://dx.doi.org/10.2139/ssrn.3899991>> accessed 9 November 2023.

<sup>487</sup> Committee on the Internal Market and Consumer Protection Committee on Civil Liberties, Justice and Home Affairs, 'Draft Compromise Amendments on the Draft Report Proposal for a regulation of the European Parliament and of the Council on harmonised rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union Legislative Acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD))' (KMB/DA/AS, 2023).

<sup>488</sup> Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD)). Please note that the text after the Trilogue that ended on 9.12.2023 has still not been drafted.

Evidence suggests that AI supported products or services (toys, personal assistants etc.) can be intentionally designed or used in ways that appeal to the subliminal perception of individuals, thus causing them to take decisions that are beyond their cognitive capacities.<sup>489</sup>

Regarding this choice, it shall be underlined that a definition of subliminal technique is not present in the EU legislation. Directive 2007/65/EC stated in Art. 3e (b) that ‘audiovisual commercial communications shall not use subliminal techniques’. However, the mentioned Directive did not define the term.<sup>490</sup> The provision was then reproduced in Directive 2010/13/EU Art. 9 (b), again, without providing a definition, not even in the amended version of 2018, known as the Audiovisual Media Services Directive.<sup>491</sup> There have been multiple attempts to identify subliminal techniques without a significant outcome and in the absence of a definition.<sup>492</sup> Subliminal manipulation could be a concept related to the famous story of James Vicary, who, in 1957, held a press conference, sending subliminal commercials during motion pictures, namely ‘Coca-Cola’ and ‘Eat Popcorn’, which is reported to have led to unusually high sales of Coca Cola and Popcorn.<sup>493</sup>

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<sup>489</sup> Commission Staff, ‘Working Document Impact Assessment Accompanying the Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules On Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts’ (SWD (2021) 85 final, 2021) 17. The document considers as evidence the following sources: U.S. White House Office of Science and Technology Policy, ‘Request for Information on the Future of Artificial Intelligence’ (1 September 2016) <<https://obamawhitehouse.archives.gov/webform/request-information-preparing-future-artificial-intelligence-0>> accessed 9 November 2023; Maurice E Stucke and Ariel Ezrachi, ‘The Subtle Ways Your Digital Assistant Might Manipulate You’ (2016) 29 *Wired* 2016; Judith Shulevitz, ‘Alexa, Should We Trust You’ (2018) *The Atlantic* November Issue <[www.theatlantic.com/magazine/archive/2018/11/alex-how-will-you-change-us/570844/](http://www.theatlantic.com/magazine/archive/2018/11/alex-how-will-you-change-us/570844/)> accessed 9 November 2023.

<sup>490</sup> Directive 2007/65/EC of the European Parliament and of the Council of 11 December 2007 amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities [2007] OJ L332/27.

<sup>491</sup> Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) [2010] OJ L95/1; Directive (EU) 2018/1808 of the European Parliament and of the Council of 14 November 2018 amending Directive 2010/13/EU on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) in view of changing market realities [2018] OJ L303/69.

<sup>492</sup> Randolph J Trappey III, *Brand Choice Revealing Customers’ Unconscious-Automatic and Strategic Thinking Processes* (Springer 2005); Johan C Karremans, Wolfgang Stroebe and Jasper Claus, ‘Beyond Vicary’s fantasies: The Impact of Subliminal Priming and Brand Choice’ (2006) 42 *Journal of Experimental Social Psychology* 792; Samantha J. Brooks and others, ‘Exposure to Subliminal Arousing Stimuli Induces Robust Activation in the Amygdala, Hippocampus, Anterior Cingulate, Insular Cortex and Primary Visual Cortex: A Systematic Meta-Analysis of fMRI Studies’ (2012) 59 *Neuroimage* 2962; Christina Bermeitinger and Benjamin Unger, ‘Subliminal Persuasion: Psychological and Juristic History and Current State of Affairs’ in Daphne Halkias (ed), *Psychology and the Search for Certainty in Everyday Life* (Athens Institute for Education and Research 2013); Strahan, Spencer and Zanna (n 275).

<sup>493</sup> Bermeitinger and Unger (n 492) 152.

However, there is no certainty regarding the concept. The Committee on Legal Affairs of the European Parliament proposed to erase any reference to the concept of subliminal from the AIA.<sup>494</sup> The Committee on the Internal Market and Consumer Protection Committee on Civil Liberties, Justice and Home Affairs proposed instead to define subliminal techniques as ‘techniques that use sensorial stimuli such as images, text, or sounds, that are below or above the threshold of conscious human perception’.<sup>495</sup>

In any case, the negotiation is ongoing, and the concept of subliminal manipulation remains undefined and unclear in the literature.<sup>496</sup> If subliminal manipulation had to be given the meaning of messages embedded for a few fractions of seconds in movies, as it seems stated without a definition in recital 16 in the General Approach adopted by the General Secretariat of Council of the European Union in November 2022,<sup>497</sup> the kind of technology described in this analysis would be largely not covered by this part of the provision. The knowledge and use of personalised cognitive biases described in the first part of this analysis are different from the subliminal concept proposed by the Internal Market and Consumer Protection Committee on Civil Liberties, Justice and Home Affairs. A possible scenario is the one described above concerning e-cigarettes.<sup>498</sup> In that scenario, we are not in the presence of messages embedded for a few fractions of seconds in movies. Not even dark patterns referred to previously in this analysis, based on deception and coercion, such as nagging, social proof, confirmshaming, obstruction, sneaking, or urgency,<sup>499</sup> are comparable to messages embedded for a few fractions of seconds in movies. Consequently, there will be severe issues in determining the presence of subliminal manipulation, especially considering the lack of definition in the newly amended version of the AIA.

The new version of Art. 5 (1) (a) distinguishes without defining them between a subliminal technique, manipulation, and deception. Therefore, CM is no longer linked just to subliminal techniques, and it is recognised that manipulation and subliminal techniques are separate concepts. However, the new version of the Article requires, in between others, three new elements to which

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<sup>494</sup> Committee on Legal Affairs, ‘Draft Opinion of the Committee on Legal Affairs for the Committee on the Internal Market and Consumer Protection and the Committee on Civil Liberties, Justice and Home Affairs on the proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union Legislative Acts’ (2021/0106(COD), 2022) Amendments 62 and 63.

<sup>495</sup> Committee on the Internal Market and Consumer Protection Committee on Civil Liberties, Justice and Home Affairs, ‘Draft Report on the proposal for a regulation of the European Parliament and of the Council on harmonised rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union Legislative Acts (COM2021/0206 – C9-0146/2021 – 2021/0106(COD))’ 2021/0106(COD) (2021/0106(COD), 2022) Amendment 65.

<sup>496</sup> For an analysis of the concept and relative sources, see Rostam J Neuwirth, ‘Law, Artificial Intelligence, and Synaesthesia’ (2022) *AI & Society* 1.

<sup>497</sup> General Secretariat of the Council, ‘Note Interinstitutional File 2021/0106(COD)’ (14336/22, 2022).

<sup>498</sup> See 4.3.2.3

<sup>499</sup> See 3.2.1.

shall be given special attention: 1) the technique used shall impair the ability to make an informed decision; 2) there needs to be a causal link between the requisite expressed in 1 and a decision that the individual would not have taken otherwise; 3) it is needed the presence of significant harm.

The first requisite of the new Art. 5 (1) (a) links the manipulation concept to that of *informed* decision. Therefore, the provision links manipulation to information, implying it should be lacking or distorted. However, according to what was stated in Chapter 2, lacking or distorted information is just one possible way manipulation can operate (M1). In the example made above of the e-cigarette, information is given and is correct. The issue with CM is not whether the decision is informed but whether the decision can be considered as *taken*. It resides with the fact that the AI system covertly exploits shortcuts to System 1. It is not just an informed decision but any decision that can be impaired. The new formulation still does not cover the example of the e-cigarette and CM2.

It shall also be considered that Art. 5 (a) now requires a direct causal link between the manipulation and the decision, which can be difficult, if not impossible, to investigate and prove. Investigating the mind of an individual in order to reconstruct the decision-making process (excluding any other causal factors to the decision) has already been proven to be highly challenging.<sup>500</sup>

Another element in the new formulation of Art. 5 (1) requires further reflection. In the first version, the Article required the AI to cause physical or psychological harm to be considered prohibited, restricting the application of Art. 5 too extensively. The article did not refer to economic harm. The choice made in the AIA is explained by Gabriele Mazzini, who drafted the Proposal, stating that the economic harm is better protected by different EU legislation.<sup>501</sup> Specifically, according to Mazzini, the CRD, the DSA, and the UCPD should protect individuals against manipulative practices not considered under the AIA.<sup>502</sup> However, the CRD and the UCPD refer just to consumers. Moreover, the already-mentioned shortcomings of the UCPD and the DSA should be considered. Consequently, it seems that the EU was missing the chance to regulate the most likely use of CM: the one able to cause economic harm. Furthermore, the concept of psychological harm is unclear. For example, it could be questioned whether the mere fact of being subject to profiling or exposed to a behaviour modification could be considered psychological harm or if an observable medical condition is needed to consider psychological harm as existing.

In the new Article version, the required harm is no longer physical or psychological. However, in the amended Recital 16, there is still a reference just to physical or psychological harm, with the abovementioned shortcomings. Moreover, the modified Art. 5 (1) now requires *significant* harm.

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<sup>500</sup> See the literature regarding the objective test in Chapter 6.

<sup>501</sup> Gabriele Mazzini and Salvatore Scalzo, 'The Proposal for the Artificial Intelligence Act: Considerations around Some Key Concepts' in Carmelina Camardi (ed) *La Via Europea per l'Intelligenza Artificiale* (Cedam 2022) 24.

<sup>502</sup> *ibid.* See 4.3.3.1.2 for CRD, the DSA and the UCPD.



However, it is questionable if the harm that results from CM, if not significant, should be excluded from the provision. Even with little harm from an economic perspective, as in the example of the e-cigarette, the use of CM can impair the right to autonomy and mental self-determination. Therefore, some kinds of CM remain unprotected, those able to affect everyday common transactions, as in the example of the e-cigarette.

Finally, arguably, the most crucial observation is that Art. 5 (1) (a) refers, in between others, to ex-post requisites. Specifically, it refers to the ‘effect’ of distorting a behaviour, the causation of a decision and the presence of significant harm. Considering its formulation and possible scenarios of its application in reality, the Article does not require just a potential presence of the requisites but an actual presence. It is questionable, for example, how the EU intends to determine ex-ante that a manipulative AI can cause not only general harm but *significant* harm. Therefore, if the technology has to be prohibited, it can be identified and scrutinised just *after* the technology has been used, the manipulation occurred, and significant harm is already present. Therefore, the manipulative technology will likely be created and used, with the remote possibility of considering ex-post if manipulation occurred, with all the limits underlined above. It seems that a prohibition should erase the possibility of using AI for manipulation ex-ante and not require waiting for its existence to identify it ex-post. The actual formulation is equivalent to stating that to understand if a gun is prohibited, it should be necessary to wait until it is used to shoot an individual.

In the AIA, the EU considers other AI technologies relevant to CM that must be banned. The first is an AI system that exploits vulnerabilities, materially distorting the behaviours of individuals.<sup>503</sup> In its first version, this provision considered the distortion and manipulation of human behaviours, which happen at a group level, not at an individual level. Thus, the first version of this provision referred to a more complex and structured behavioural change, referring to multiple individuals with similar characteristics. The modified version of this Article prohibits an AI able to exploit the vulnerabilities at an individual and a group level. Therefore, the partition between a single individual and a group is lost in the new formulation, and it shall be considered that a reference to a group is also present in the new possible formulation of Art. 5 (1) (a). The two provisions, therefore, overlap.

Moreover, the new formulation specifies vulnerability to include ‘known or predicted personality traits’ and ‘mental ability’.<sup>504</sup> It is unclear how this provision differs from the previous one regarding manipulation. As considered in Chapter 2, manipulation exploits routes to System 1,

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<sup>503</sup> Art. 5 (1) (b) states that it is prohibited ‘an AI system that exploits any of the vulnerabilities of a person or a specific group of persons, including characteristics of such person’s or a such group’s known or predicted personality traits or social or economic situation age, physical or mental ability with the objective or to the effect of materially distorting the behaviour of that person or a person pertaining to that group in a manner that causes or is likely to cause that person or another person significant harm’.

<sup>504</sup> The previous version considered, instead, mental disability.

which are vulnerabilities in the decision-making process of an individual that affect their behaviour. The two provisions, therefore, refer to the same concept, but the second provision does not use the term manipulation and does not require all the elements of the previous one, including the reference to an informed decision and a causal link. It shall also be considered that CM can rely on different shortcuts to System 1, including personality traits and mental ability. Art. 5 (1) (a) does not define manipulation, and the modified version of Art. 5 (1) (b) does not mention, for example, cognitive biases. Therefore, the difference between the two provisions is unclear and could also be deduced by the formulation of this second provision that CM prohibited under Art. 5 (1) (a) cannot occur if an AI uses vulnerabilities such as personality traits or mental ability to hypernudge a decision.

Moreover, as it happens with Art. 5 (1) (a), the new possible formulation of this provision requires significant harm, with the abovementioned shortcomings. Furthermore, those expressed in Art. 5 (1) (b) are ex-post requisites with the abovementioned consequences.

The new version of Art. 5 introduces further confusion. Art. 5 (1) (b a), newly introduced, prohibits ‘biometric categorisation systems that categorise natural persons according to sensitive or protected attributes or characteristics or based on the inference of those attributes or characteristics’. The new version of the AIA defines biometric-based data, stating in Art. 3 (33 a) that it ‘means data resulting from specific technical processing relating to physical, physiological or behavioural signals of a natural person’.<sup>505</sup> An AI relies on observable data, and shortcuts to decision-making vulnerabilities can be identified through an individual’s behaviour (for example, identifying that an individual tends to do what others do or all the cognitive biases in the example of the e-cigarette), resulting in an individual’s categorisation. Therefore, it could seem that it is prohibited under Art. 5 (1) (b a) to categorise individuals inferring from their biometrics their cognitive filters and cognitive biases and, more generally, their shortcuts to System 1. However, it is unclear if cognitive filters and biases should be considered sensitive or protected attributes or characteristics. The AIA does not define these requisites.

Moreover, the concept of biometric-based data appears in another provision. The new formulation of the AIA, in Art. 5 (1) (d c), prohibits AI from inferring the emotions of a natural person. According to the new version of Art. 3 (1) (34) ‘emotion recognition system’ means ‘an AI system for the purpose of identifying or inferring emotions, thoughts, states of mind or intentions of individuals or groups on the basis of their biometric and biometric-based data’. However, Art. 5 (1) (dc) limits its scope to law enforcement, border management, workplace, and education institutions.

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<sup>505</sup> The notion of biometric data is also considered in Article 4(14) of the GDPR and specified in the new version of Recital 7 AIA as follows: ‘Biometrics-based data are additional data resulting from specific technical processing relating to physical, physiological or behavioural signals of a natural person, such as facial expressions, movements, pulse frequency, voice, key strikes or gait, which may or may not allow or confirm the unique identification of a natural person’.

Therefore, inferring emotions, thoughts, states of mind and intentions of individuals in fields different from these is allowed. In the excluded fields, it is allowed to deduce shortcuts to System 1, which are based on emotions, thoughts, states of mind and intentions. Therefore, it is allowed to identify the basis for CM in commerce, for example.

Consequently, on one side, Art. 5 prohibits some kinds of CM in (1) (a) and (b) (with the confusion in the concepts and the limits already underlined) and possibly biometric categorisation relevant for manipulation in (1) (b a). However, on the other side, the AIA allows the basis of CM in every field different from those indicated in Art. 5 (1) (dc), contradicting Art. 5 (1) (b a).

The new Article 5 (1 a) states that its provisions ‘shall not affect the prohibitions that apply where an artificial intelligence practice infringes another EU law, including EU acquis on data protection, non-discrimination, consumer protection or competition’. Therefore, it is a subsidiary provision with the abovementioned shortcomings of different legislation and an apparent possible overlapping.

Aware of the China social credit system experiment,<sup>506</sup> in which individuals are being scored based on their social media and life behaviour, the AIA aims to erase the possibility of mass manipulation. Art. 5(1)(c) prohibits AI systems from evaluating or classifying the trustworthiness of natural persons based on their social behaviour or known or predicted personal or personality characteristics, which can result in detrimental or unfavourable treatment of individuals or groups of individuals. This kind of prohibition is linked to the possible use by a PT of cognitive biases, specifically social proof.

The AIA, finally, in Art. 52 (2), requires transparency, obliging users of AI systems to disclose the use of ‘emotion recognition systems’ operating through the processing of biometric data (Art. 3 (34) and (33) AIA) to those exposed to them. However (as considered above while analysing the GDPR, the UCPD, the DSA and the DMA), it is questionable whether transparency could be effective against CM.<sup>507</sup>

#### **4.4 Final Considerations**

The AIA contains provisions that complement the GDPR, the UCPD (as recently interpreted), the DSA, and the DMA in protecting individuals against CM. However, the EU’s existing and ongoing legislation leaves out of its scope CM2, which can affect System 1 but is not subliminal and does not

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<sup>506</sup> Zuboff (n 26) 388-394.

<sup>507</sup> For a discussion regarding the AIA shortcomings, see Claire Boine, ‘AI-enabled manipulation and EU law’ (Technologies of Deception Conference, Information Society Project Conference, Yale Law School, March 2022) <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4042321](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4042321)> accessed 9 November 2023 and Smuha and others (n 486). For the limits of providing information, see the notes in 4.3.1, 4.3.2.3 and 4.3.3.1.1.

use deception or false information, undue influence,<sup>508</sup> or that does not cause relevant harm. It shall also be noted that EU legislation applies only in the EU, not in the UK, and consequently not in one of the systems here used as a case study.

For what is relevant to this analysis, it should then be considered that any existing or future legislation in the two systems used as case study leaves or will leave room for contract law. Contracts will be signed even in the presence of legislation prohibiting some kinds of AI, its use in some fields, or in the presence of legislation that disciplines data acquisition or commercial practices. The UCPD, for example, is without prejudice to contract law.

A contract law perspective on CM will be considered starting from Chapter 6. In any case, the DSA, the DMA, and the AIA all recognise the existence of manipulative AI, and the EU states clearly that this technology can distort or impair the recipients' autonomy, decision-making, or choice. The next chapter, therefore, will analyse the impact of CM's ability to impair the decision-making processes on fundamental rights before considering a contract law perspective on CM.

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<sup>508</sup> Hacker (n 452) 38.

# Chapter 5 Theoretical Foundations of the Need for Protection against CM

## 5.1 Introduction

The previous chapter considered the current legal concerns about PT/CM. This chapter will discuss whether a common theoretical foundation, the right to autonomy, is present in the concerns already expressed by multiple entities regarding CM. This chapter will also state the need to recognise the right to mental self-determination, a new fundamental right tailored to address the unprecedented abilities of CM. Chapter 6 will discuss if consent and contract law could be a possible mechanism to defend this right to mental self-determination against CM.

## 5.2 Autonomy and CM

According to what was stated in the previous chapter, the primary issue concerning using an AI for persuasion derives from the combined use of Big Data and AI's computational analysis power, and ability to interact and adapt in real-time to the users' actions. Whilst both humans and AI can acquire data on individuals and covertly find and use routes to affect System 1, and both can use open or unlawful persuasion (coercion, deception, and manipulation), the difference between (lawful or unlawful) human and computational persuasion resides in the computational capacities of an AI-driven system. A PT led by an AI system can use manipulation with unprecedented power, speed, personalisation, and accuracy. A PT can blur the line between persuasion and manipulation<sup>509</sup> to an unparalleled degree and shape thoughts.<sup>510</sup>

The documents mentioned in the previous chapter (consisting of studies, principles, recommendations, soft law, proposals and legislation) link dark patterns and CM to the possible infringement of various fundamental rights. The documents identify these rights in the rights to privacy, informational self-determination, autonomy, freedom of thought, and the right to hold an opinion and express it.<sup>511</sup> In this section, it will be considered that the abovementioned rights, in the field of CM, are an expression of the autonomy of the will, in the Kantian meaning expressed as 'the property of the will by which it is a law to itself'.<sup>512</sup> As discussed further, the connection between the

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<sup>509</sup> OHCHR (n 331) 2.

<sup>510</sup> James Williams, *Stand out of our Light: Freedom and Resistance in the Attention Economy* (CUP 2018), preface, XI and 23.

<sup>511</sup> See 4.2 and 4.3.

<sup>512</sup> Immanuel Kant, *Groundwork of the Metaphysics of Morals* (trans. M. Gregor, CUP 1997) 4:440. See also Louis Henkin, 'Privacy and Autonomy' (1974) 74 *Columbia LR* 1410; Paul Guyer, 'Kant on the Theory and Practice of Autonomy' (2003) 20 *Social Philosophy and Policy* 70.

abovementioned rights in the field of CM is identifiable in the possible threat to the ability of individuals to be or remain in control of their thoughts if, via the use of technology, too much information is known regarding them. Moreover, the threat is enhanced if the information acquired is used with unprecedented power to affect the decision-making processes of individuals in the absence of their awareness.

The link between the power of technology and information and the infringement of fundamental rights has been considered in the past concerning the first of the rights mentioned by the bodies considered above, the right to privacy. It was 1890 when, in an article written by Warren and Brandeis, serious concerns were expressed regarding possible infringements of rights connected to the quantity of information available regarding an individual due to newly emerged technology and the use of such information. These concerns brought to identifying the right to privacy as a fundamental right.<sup>513</sup> The use of AI for manipulation suggests today the need for a newly emerged right, the right to mental self-determination, which will be discussed in this chapter at 5.3.<sup>514</sup>

In their article, Warren and Brandeis underlined issues similar to those later expressed by the bodies mentioned in the previous chapter. The authors expressed concerns about recent inventions, new business models, instantaneous photographs and the pervasive intrusion of the newspapers into the private sphere, which could endanger, quoting Judge Cooley, an individual's 'right to be let alone'.<sup>515</sup>

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<sup>513</sup> Samuel Warren and Louis Brandeis, 'The Right to Privacy' (1890) 4 HLR 193. On the right to privacy in English law, see Alec Samuels, 'Privacy: Statutorily Definable?' (1996) 17 Statute LR 115; Helen Fenwick and Gavin Phillipson, 'Confidence and Privacy: a Re-examination' (1996) 55 CLJ 447; Gerald Dworkin, 'The Younger Committee Report on Privacy' (1973) 36 MLR 399.

As considered by James E Stanley, 'Max Mosley and the English right to privacy' (2011) 10 Wash U Global Stud LR 641, the right to privacy was not immediately recognised in English law as a stand-alone right, being English law more focused on confidentiality. See, eg, *Kaye v Robertson* [1991] FSR 62 (CA). A relevant case for the recognition of a stand-alone right to privacy can be found *Mosley v News Group Newspapers* [2008] EWHC 1777 (QB), [2008] EMLR 20. See also *Douglas v Hello! Ltd* [2001] QB 967 (CA) and *Campbell v Mirror Group Newspapers Ltd* [2004] UKHL 22, [2004] 2 AC 457.

Regarding the origin of the right, see Dorothy J Glancy, 'The Invention of the Right to Privacy' (1979) 21 Ariz LR 1. On the right to privacy, see William Prosser, 'The Torts of Privacy' (1960) 383 California LR 392; Judith Jarvis Thomson, 'The right to privacy' (1975) Philosophy & Public Affairs 295; Priscilla M Regan, 'Protecting Privacy and Controlling Bureaucracies: Constraints of British Constitutional Principles' (1990) 3 Governance 33; Paul M Schwartz, 'Internet Privacy and the State' (1999) 32 Conn LR 815; Jon L. Mills, *Privacy: the lost right* (OUP 2008); Colin J Bennett, *The privacy advocates: Resisting the Spread of Surveillance* (Mit Press 2010); Franziska Boehm, *Information Sharing and Data Protection in the Area of Freedom, Security and Justice: Towards Harmonised Data Protection Principles for Information Exchange at EU-level* (Springer Science & Business Media 2011); Lee Andrew Bygrave, *Data Privacy Law: an International Perspective* (OUP 2014); Colin J Bennett, 'Regulating Privacy', *Regulating Privacy* (Cornell University Press 2018).

<sup>514</sup> See Jan-Christoph Bublitz, 'My mind is mine!/? Cognitive Liberty as a Legal Concept' in Elisabeth Hildt and Andreas G. Franke (ed), *Cognitive Enhancement* (Springer 2013); Jan Christoph Bublitz and Reinhard Merkel, 'Crimes Against Minds: On Mental Manipulations, Harms and a human Right to Mental Self-Determination' (2014) 8 Criminal Law and Philosophy 51; Wrye Sententia, 'Neuroethical Considerations: Cognitive Liberty and Converging Technologies for Improving Human Cognition' (2004) 1013 Ann NY Acad Sci 221.

<sup>515</sup> Warren and Brandeis (n 513) 195.

Warren and Brandeis recognised that when information regarding an individual is made available to others, the mere fact that the information is revealed can influence and injure an individual's personality.<sup>516</sup> Therefore, in their view, the right to privacy protects from one side a physical sphere, a personal bubble in which others are not allowed to enter and acquire information (such as the house or the correspondence), and from another side, the psychological integrity of an individual and their thoughts.<sup>517</sup> For Warren and Brandeis, 'the common law secures to each individual the right of determining, ordinarily, to what extent his thoughts, sentiments, and emotions shall be communicated to others'.<sup>518</sup> This sentence expresses the link between the right to privacy and the need to protect individualism.<sup>519</sup> The right to privacy consists not solely of the right to be let alone in a personal bubble in which other people are not allowed, but it is also an expression of the right to decide for oneself and to form an individual personality.<sup>520</sup> Therefore, the right to privacy has a psychological dimension.

The right to privacy was recognised as a human right and protected under Art. 12 of The Universal Declaration of Human Rights (UDHR).<sup>521</sup> The formulation of Art. 12 is as follows: 'No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.'

The right to privacy can be found in the International Covenant on Civil and Political Rights (ICCPR), Art. 17,<sup>522</sup> whose formulation is almost identical to that of the UDHR.<sup>523</sup> In Europe, the right to privacy was recognised as a fundamental human right under Art. 8 of the European Convention on Human Rights.<sup>524</sup> Art. 8, specifically, safeguards the right to respect one's private and family life, home, and correspondence. The same article was received in the UK in the Human Rights Act 1998.<sup>525</sup>

In these formulations of the right to privacy, a partition can be noticed corresponding to the original 1890 conception of this right: a physical sphere (referenced to in the home and the

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<sup>516</sup> Ibid 205, 207.

<sup>517</sup> Glancy (n 513) 2.

<sup>518</sup> Warren and Brandeis (n 513) 198.

<sup>519</sup> For a general discussion on individualism, see Lorenzo Infantino, *Individualism in Modern Thought: From Adam Smith to Hayek* (Routledge 2014). See also John Stuart Mill, *On Liberty* (Appleton-Century-Crofts 1859).

<sup>520</sup> Glancy (n 513) 21-22.

<sup>521</sup> Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A(III) (UDHR).

<sup>522</sup> International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR).

<sup>523</sup> Paul M. Taylor, 'Article 17: Privacy, Home, Correspondence; Honour and Reputation' in *A Commentary on the International Covenant on Civil and Political Rights: The UN Human Rights Committee's Monitoring of ICCPR Rights* (CUP 2020).

<sup>524</sup> Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) DSTI/CP(2020)23/FINAL.

<sup>525</sup> Human Rights Act 1998, Art 8.

correspondence) and a psychological sphere (expressed in concepts as privacy, private life, family, honour and reputation). The European Court of Human Rights has interpreted Art. 8 ECHR as protecting, besides house and correspondence between others, a psychological sphere consisting of what the Court refers to as psychological dignity, the right to develop a personality, the right to self-determination, and the right to psychological integrity.<sup>526</sup>

Following the development of new technology, the right to privacy was extended to include the right to informational self-determination, another right the bodies considered in the previous chapter refer to. The German Federal Constitutional Court identified this right in December of 1983 as expressing the right to self-determination.<sup>527</sup> The right can be defined as ‘the authority of the individual to decide himself, on the basis of the idea of self-determination, when and within what limits information about his private life should be communicated to others’.<sup>528</sup>

The right of informational self-determination has two sides. The first side is the right of an individual to receive information regarding possible intrusions in their private sphere. The other side is the authority of the individual to decide, following the ideas of Warren and Brandeis, when and within what limits information about their private life (including their thoughts) should be communicated to others.<sup>529</sup>

The right to informational self-determination was referred to in multiple documents at the European level concerning the use of AI. For example, in 2018, during the International Conference of Data Protection and Privacy Commissioners (ICDPPC), it was stated that while using an AI, the right to informational self-determination should be guaranteed by ensuring ‘that individuals are always informed appropriately when they are interacting directly with an artificial intelligence system

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<sup>526</sup> ECHR, ‘Guide on Article 8 of the European Convention on Human Rights’ (30 April 2022) 28. Not all the aspects mentioned by the Court have a definition. The Court referred to psychological dignity in *Beizaras and Levickas v Lithuania* App no 41288/15 (ECtHR, 14 January 2020) § 117, to the right to develop a personality in *Von Hannover v Germany* (no. 2) App nos 40660/08 and 60641/08 (ECtHR, 7 February 2012) § 95, to the right to self-determination in *Pretty v the United Kingdom* App no 2346/02 (ECtHR, 29 April 2002) § 61, and to psychological integrity in *Vavřička and Others v the Czech Republic* App no 47621/13 (ECtHR, 8 April 2021) § 261.

<sup>527</sup> 1BVerfGE 65, 1 – Volkszählung Urteil des Ersten Senats vom 15. Dezember 1983 auf die mündliche Verhandlung vom 18. und 19. Oktober 1983 - 1 BvR 209, 269, 362, 420, 440, 484/83 in den Verfahren über die Verfassungsbeschwerden.

<sup>528</sup> Antoinette Rouvroy and Yves Poulet, ‘The Right to Informational Self-Determination and the Value of Self-Development: Reassessing the Importance of Privacy for Democracy’ in Serge Gutwirth (ed), *Reinventing Data Protection?* (Springer 2009) 3.

<sup>529</sup> Rupert Emerson, ‘Self-determination’ (1971) 65 AJIL 459; Eric Kolodner, ‘The Future of the Right to Self-Determination’ (1994) 10 Conn J Int’l L 153; Hurst Hannum, ‘The right of Self-determination in the Twenty-First Century’ (1998) 55 Wash & Lee LR 773; Helen Quane, ‘The United Nations and the Evolving Right to Self-Determination’ (1998) 47 ICLQ 537; Simone Fischer-Hübner and others, ‘Online Privacy: Towards Informational Self-Determination on the Internet’ (2011) 1 Dagstuhl Manifestos 1; Rouvroy and Poulet (n 528); Brendan Van Alsenoy, Eleni Kosta and Jos Dumortier, ‘Privacy Notices Versus Informational Self-determination: Minding the Gap’ (2014) 28 International Review of Law, Computers & Technology 185.



or when they provide personal data to be processed by such systems’.<sup>530</sup> In 2019, the Council of Europe stated:

The development, training, testing and use of AI systems that rely on the processing of personal data must fully secure a person’s right to respect for private and family life under Article 8 of the European Convention on Human Rights, including the “right to a form of informational self-determination” in relation to their data.<sup>531</sup>

Recommendation CM/Rec(2020)1 of the Committee of Ministers, regarding the right to informational self-determination, stated that ‘individuals should be informed in advance about the related data processing’ and should be able to ‘control their data, including through interoperability’. The same Recommendation states that the right for individuals to make themselves, their physical environment, or their activities illegible to automation or other forms of machine reading or manipulation, including through obfuscation, is an expression of informational self-determination.<sup>532</sup>

The first concept at the root of the privacy-derived right to informational self-determination is that knowledge of meaningful information (such as interaction with an AI or data processing) is a pillar of self-determination. The second concept is that if an individual is observed or surveilled (possibly without their knowledge), or if information not to be shared is known to others, the self-determination process might be endangered. The right to choose freely might be inhibited.<sup>533</sup>

What shall be underlined is that both the right to privacy and the privacy-derived right to informational self-determination have been identified and developed following the introduction of new technology or new uses of existing technologies. Moreover, both rights refer to preserving an inner psychological sphere.

The two rights have another common element. The concept of privacy and the privacy-derived notion of informational self-determination used in the field of AI are an expression of the autonomy of the will, in the Kantian meaning of ‘the property of the will by which it is a law to itself’.<sup>534</sup>

Autonomy is one of the rights referred to by the bodies considered in the previous chapter and consists of the capacity of individuals to legislate for themselves.<sup>535</sup> Autonomy has been defined as

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<sup>530</sup> CNIL, EDPS, GDPR, ‘Declaration On Ethics And Data Protection In Artificial Intelligence’ (40th International Conference of Data Protection and Privacy Commissioners, Brussels, October 2018) 4.

<sup>531</sup> Council of Europe, ‘Unboxing Artificial Intelligence: 10 Steps to Protect Human Rights’ (May 2019) 11.

<sup>532</sup> Committee of Ministers, ‘Recommendation of the Committee of Ministers to Member States on the Human Rights Impacts of Algorithmic Systems’ (CM/Rec(2020)1) 2.1 2.

<sup>533</sup> Rouvroy and Poullet (n 528) 9, referring to 1BVerfGE 65 (n 527).

<sup>534</sup> See n 512.

<sup>535</sup> European Group on Ethics in Science and New Technologies, *Statement on Artificial Intelligence, Robotics and ‘Autonomous’ Systems* (Publications Office 2018) 9.

the ‘personal rule of the self by adequate understanding while remaining free from controlling interferences by others and from personal limitations that prevent choice’.<sup>536</sup> Autonomy, like the right to informational self-determination, is therefore based on understanding (via receiving information such as the interaction with an AI and the data processing) and freedom from interference (having the right to exclude others from the private sphere).<sup>537</sup>

Informational self-determination has been considered an expression of Kantian autonomy, connected to the right to self-develop a personality<sup>538</sup> via receiving information, holding thoughts and opinions, expressing them<sup>539</sup> and dissenting from the opinion of others<sup>540</sup> (the other rights mentioned by the international and European bodies referred to in the previous chapter). In expressing their right to informational self-determination, individuals exercise the right to autonomy and to participate in deliberative processes self-determinedly, without interference.<sup>541</sup> Autonomy has been considered related to ‘privacy, voluntariness, self-mastery, choosing freely, the freedom to choose, choosing one's own moral position and accepting responsibility for one's choices’.<sup>542</sup> In the field analysed in this thesis, Williams considers PT to have implications for users’ autonomy and addresses the fundamental right of freedom of thought as a dimension of autonomy,<sup>543</sup> with awareness<sup>544</sup> and reflection.<sup>545</sup>

According to all the above, in the field of CM, the rights mentioned by the UN, the OECD and the other bodies considered above, specifically autonomy, freedom of thought, the right to hold an opinion and to express it, self-determination, privacy, and informational self-determination, are connected and overlapping. All the abovementioned rights have been regarded as ethical principles for AI use.<sup>546</sup> Moreover, in the field of CM, the mentioned rights have been considered as different expressions of the idea that, in interacting with an AI, human beings should have the freedom to

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<sup>536</sup> Faden and Beauchamp (n 204) 8. On autonomy in moral philosophy, see John Christman, ‘Autonomy in Moral and Political Philosophy’ (2008) Stanford Encyclopedia of Philosophy <<https://plato.stanford.edu/entries/autonomy-moral/>> accessed 8 November 2023.

<sup>537</sup> On autonomy, see Mill (n 519); Gerald Dworkin, ‘Autonomy and Informed Consent’ in *President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research Making Health Care Decisions*, vol 3 (CUP 1982); Faden and Beauchamp (n 204); Onora O’Neill, *Autonomy and Trust in Bioethics* (CUP 2002).

<sup>538</sup> Rouvroy and Poullet (n 528) 10. The right is protected under the UDHR, Art. 22.

<sup>539</sup> Protected under Art. 19 of the UDHR.

<sup>540</sup> Cass R Sunstein, *Why Societies Need Dissent*, vol 9 (HUP 2005).

<sup>541</sup> Rouvroy and Poullet (n 528) 4, 8.

<sup>542</sup> Faden and Beauchamp (n 204) 7.

<sup>543</sup> James Williams, ‘Persuasive Technology’ in David Edmonds (ed), *Future Morality* (OUP 2021) 135. Regarding the link between autonomy and CM, see also Kayleen Manwaring, ‘Will Emerging Information Technologies Outpace Consumer Protection Law? The Case of Digital Consumer Manipulation’ (2018) 26 *Competition and Consumer Law Journal*; Paterson and others (n 317).

<sup>544</sup> Williams, ‘Persuasive Technology’ (n 543) 136.

<sup>545</sup> *ibid* 137.

<sup>546</sup> Anna Jobin, Marcello Ienca and Effy Vayena, ‘The Global Landscape of AI Ethics Guidelines’ (2019) 1 *Nature Machine Intelligence* 389, 395.

decide for themselves, free from mental interferences such as coercion, ‘threats to mental autonomy and mental health, unjustified surveillance, deception and unfair manipulation’.<sup>547</sup>

These rights in the field of CM are related and overlapping. They have a common root in a comprehensive concept of Kantian autonomy. Autonomy is intended here as the right to create and be in control of thoughts, analyse information, form opinions, and make decisions accordingly, understanding the information available and excluding interference from the outside in a private mental sphere.

### 5.3 A Right to Mental Self-Determination

The previous section stated that the fundamental rights mentioned by the UN, the OECD, the EU, and other bodies are connected and overlap in the field of CM. It was also stated that the connection between the abovementioned rights in the field of compusuation is to be identified in the possible threat to the ability of individuals to be or remain in control of their thoughts if, via the use of technology, too much information is known regarding them and used with unprecedented power for manipulation. As stated above, these rights are related to a comprehensive concept of autonomy.

In 1890, the right to privacy was identified following the concerns for the use of technology (instantaneous photography and the pervasive use of newspapers) and then extended to the right to informational self-determination following the evolution of technology. In the field of CM, the expression of Kantian autonomy leads to the theorisation of the existence of a new, autonomous right to be protected, the right to mental self-determination.

The possibility of introducing a new right tailored to an AI's peculiarity was considered in 2017 by the Parliamentary Assembly of the Council of Europe (PACE), which suggested that a 'right not to be measured, analysed or coached' might be introduced in the AI field.<sup>548</sup> In a Study for the Council of Europe (released in two versions, one in 2018 and one in 2019), the MSI-AUT's rapporteur, Yeung,<sup>549</sup> expressly stated the possible need for a new human right in the AI field.<sup>550</sup>

The new possible right is identified as the *right to cognitive liberty*, the *right to cognitive sovereignty* or, in a formulation that better reflects the abovementioned evolution of the right to privacy in the right to informational self-determination, the *right to mental self-determination*.<sup>551</sup>

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<sup>547</sup> High-Level Expert Group on Artificial Intelligence, ‘Ethics Guidelines For Trustworthy AI’ (8 April 2019) 10.

<sup>548</sup> PACE ‘Technological convergence, artificial intelligence and human rights’ (10 April 2017) Report Doc 14288, Art 4.

<sup>549</sup> See also 3.2.2 and Yeung, ‘Hypernudge’ (n 48).

<sup>550</sup> Council ‘DGI (2019)’ (n 360) 34; Council, ‘A Study of the Implications of Advanced Digital Technologies (Including AI Systems) for the Concept of Responsibility within a Human Rights Framework’ (MSI-AUT (2018) 05, 2018) Appendix B.

<sup>551</sup> *ibid.*

Sententia conceptualised this right under the name of cognitive liberty.<sup>552</sup> Sententia and Boire defined cognitive liberty as ‘the right of each individual to think independently and autonomously, to use the full power of his or her mind, and to engage in multiple modes of thought’.<sup>553</sup> In the authors’ view, cognitive liberty is seen from a positive perspective, the perspective of an individual who shall be free to enhance their mind through drugs or neurotechnology to expand their cognitive abilities. However, Sententia and Boire also took into account the necessity to avoid intrusions in the mind of individuals, stating that an individual shall be free from intrusion in their mind via the use of drugs (anti-depressant, attention drugs) and direct electrical manipulation and interfacing technologies, preserving autonomy and what they call ‘brain privacy’.<sup>554</sup>

The right was then further theorised by Bublitz, who argued that a new fundamental human right, the right to cognitive liberty or mental self-determination, should be recognised. In his opinion, this right ‘guarantees an individual's sovereignty over their mind’.<sup>555</sup> Similarly to Sententia, Bublitz analysed this right's existence mainly from the perspective of neuroenhancements, which is the pharmaceutical improvement of the mind.<sup>556</sup> He considered that this right should be the central legal principle and guide the regulation of neurotechnologies. In Bublitz's opinion, the right to alter an individual’s mental state with neuro tools and to refuse to modify it should be recognised.<sup>557</sup>

Bublitz, identifying the origin and the theoretical foundation of this right, refers to Kant (as done by this analysis in the previous section) and argues that the law presumes that individuals have free will. According to the author, if individuals are treated by criminal and contract law ‘as self-determined over their actions and antecedent mental states’, and if the law ‘holds them accountable for consequences of mind-states (...) as if they had free will’, then, the law shall grant individuals the powers derived from self-determination.<sup>558</sup> Accordingly, Bublitz describes cognitive liberty as the right to free will, an implicit assumption of any legal order based on individual self-determination and responsibility.<sup>559</sup>

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<sup>552</sup> Sententia, 'Neuroethical Considerations' (n 514); Wrye Sententia, 'Freedom by design: Transhumanist Values and Cognitive Liberty' in in Max More and Natasha Vita-More (eds), *The Transhumanist Reader: Classical And Contemporary Essays On The Science, Technology, And Philosophy Of The Human Future* (Wiley 2013).

<sup>553</sup> This definition can be found on the website of the two authors ‘CCLE’ <[https://web.archive.org/web/20120206215115/http://www.cognitiveliberty.org/faqs/faq\\_general.htm](https://web.archive.org/web/20120206215115/http://www.cognitiveliberty.org/faqs/faq_general.htm)> accessed 9 November 2023.

<sup>554</sup> Sententia, 'Freedom by Design' (n 552) 358.

<sup>555</sup> Bublitz, 'My Mind is Mine!?' (n 514); Bublitz and Merkel (n 514). See also Marcello Ienca and Roberto Andorno, 'Towards New Human Rights in the Age of Neuroscience and Neurotechnology' (2017) 13 *Life Sciences, Society and Policy* 1; Alan Weissenbacher, 'Defending Cognitive Liberty in an Age of Moral Engineering' (2018) 16 *Theology and Science* 288; Paolo Sommaggio and Marco Mazzocca, 'Cognitive Liberty and Human Rights' in Antonio D'Aloia and Maria Chiara Errigo (eds), *Neuroscience and Law* (Springer 2020); Marcello Ienca, 'On Artificial Intelligence and Manipulation' (2023) 42 *Topoi* 833.

<sup>556</sup> Bublitz refers to Thorsten Galert and others, 'Das optimierte Gehirn' (2009) 11 *Gehirn und Geist* 40.

<sup>557</sup> Bublitz, 'My mind is mine!?' (n 514) 2.

<sup>558</sup> *ibid* 12.

<sup>559</sup> *ibid*.

As previously done by Sententia, Bublitz connects the right to cognitive liberty to the concept of privacy, to the right to develop a personality and to the right to mental integrity or mental health, stating that ‘some rights are closely related to the idea of cognitive liberty’.<sup>560</sup> However, these rights cannot protect the particularities of interferences with the mind. He affirms that ‘legal theory has yet to develop more fine-grained doctrines dealing with the mind and mental states’.<sup>561</sup> Therefore, Bublitz identified some aspects of the right to cognitive liberty, or mental self-determination. The first aspect is the liberty to change one's mind. The second aspect of the right is to shield individuals from intrusions into their minds and preserve their mental integrity.<sup>562</sup> This second aspect is the one that is more relevant concerning CM2.

This right has been taken into account by McCarthy-Jones, who considers it also from the perspective that thoughts shall not be manipulated.<sup>563</sup> McCarthy-Jones underlines how the US courts have already considered the principle that thoughts shall not be manipulated.<sup>564</sup> The author also considered that the mentioned principle could be connected to the right to mental integrity as identified by the 2009 Charter of Fundamental Rights of the European Union<sup>565</sup> Art. 3.1 and supports some European Court of Human Rights decisions.<sup>566</sup> McCarthy-Jones argues that the right to mental self-determination secures mental autonomy, which shall be protected by prohibiting the manipulation of thoughts.<sup>567</sup>

Douglas underlined that given that many states recognise ‘a right against significant, nonconsensual interference with one’s body’, an equal legal right to mental integrity should be recognised against interferences with the mind.<sup>568</sup> Douglas referred explicitly to the concept of nudge, considered mental interferences against which protection should be received.<sup>569</sup>

The emerging literature on Bublitz's thoughts analyses the terms cognitive liberty, cognitive sovereignty, and mental self-determination.<sup>570</sup> The literature has considered the possible existence of

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<sup>560</sup> *ibid* 14.

<sup>561</sup> *ibid* 17.

<sup>562</sup> *ibid* 19.

<sup>563</sup> Simon McCarthy-Jones, 'The Autonomous Mind: The Right to Freedom of Thought in the Twenty-First Century' (2019) 2 *Frontiers in Artificial Intelligence* 19.

<sup>564</sup> The author cites at 10 *Rennie v Klein* 653 F2d 836 (3d Cir 1981), *Stanley v Georgia* 394 US 557 (1969), and *Ashcroft v Free Speech Coalition* 535 US 234 (2002).

<sup>565</sup> Charter of Fundamental Rights of the European Union (adopted 26 October 2012) 2012/C 326/02.

<sup>566</sup> The author cites, at 10, *Larissis and Others v Greece* (1998) 27 EHRR 329, regarding high-ranking officers who tried to convert lower-rank soldiers to Jehova’s Witnesses and *Kokkinakis v Greece* (1994) 17 EHRR 397, which refers to the so-called brainwashing in a religious context.

<sup>567</sup> McCarthy-Jones (n 563) 11.

<sup>568</sup> Thomas Douglas and Lisa Forsberg, 'Three Rationales for a Legal Right to Mental Integrity', in Sjors Ligthart and others, *NeuroLaw* (Springer Nature 2021) 172.

<sup>569</sup> *ibid* 194.

<sup>570</sup> Sabine Michalowski, 'Critical Reflections on the Need for a Right to Mental Self-Determination' in Andreas von Arnould, Kerstin von der Decken and Mart Susi (eds), *The Cambridge Handbook of New Human Rights: Recognition, Novelty, Rhetoric* (CUP 2020).

neuro rights, identifiable as new human rights to protect mental processes and brain data.<sup>571</sup> Ienca and Andorno proposed the introduction of new human rights, distinguishing different aspects of the interference in the human mind and considering the aspects under different rights, such as the right to mental privacy, the right to mental integrity, the right to psychological continuity and a right to cognitive liberty.<sup>572</sup> Instead, Lavazza discusses the possibility of a new right to mental integrity.<sup>573</sup> Farahany also argued in favour of recognising a specific right to cognitive liberty, linking the concept to those of cognitive privacy, freedom of thought and self-determination.<sup>574</sup> The neuro rights have also been considered with a critical approach, like that of Herz, which analysed the work of some of the authors mentioned above and brought back the neuro rights under existing human rights. However, Herz argues that existing human rights should be reinterpreted to make them adhere to the reality of AI.<sup>575</sup>

Following the thoughts described above, the MSI-AUT recognised the possible need for a new human right. According to the MSI-AUT, the new right could provide a more robust and suitable approach to protect individuals against the risks of CM. The MSI-AUT follows Bublitz's thoughts<sup>576</sup> and considers that the new right could guarantee individuals' sovereignty over their minds. In the words of the MSI-AUT, there might be the need for 'a free-standing right to cognitive sovereignty (akin to the rights of data protection) which overlaps with other human rights, including those arising under Articles 8, 9 and 10'.<sup>577</sup> According to the MSI-AUT, while the right to mental self-determination might be a self-standing right, it is also possible that such a right might be recognised as falling within Art. 9(1) ECHR, which establishes the right to freedom of thought, conscience and religion.<sup>578</sup>

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<sup>571</sup> Rafael Yuste and others, 'Four Ethical Priorities for Neurotechnologies and AI' (2017) 551 *Nature* 159.

<sup>572</sup> Ienca and Andorno (n 555).

<sup>573</sup> Andrea Lavazza, 'Freedom of Thought and Mental Integrity: The Moral Requirements for any Neural Prosthesis' (2018) 12 *Frontiers in Neuroscience* 82.

<sup>574</sup> Nita A. Farahany, *The Battle for Your Brain: Defending the Right to Think Freely in the Age of Neurotechnology* (St. Martin's Press 2023).

<sup>575</sup> Nora Hertz, 'Neurorights—Do we Need New Human Rights? A Reconsideration of the Right to Freedom of Thought' (2023) 16 *Neuroethics* 5.

<sup>576</sup> Jan-Christoph Bublitz, 'The Nascent Right to Psychological Integrity and Mental Self-Determination' in Andreas von Arnould, Kerstin von der Decken and Mart Susi (eds), *The Cambridge Handbook of New Human Rights: Recognition, Novelty, Rhetoric* (CUP 2020).

<sup>577</sup> Council 'MSI-AUT(2018)' (n 550) 79.

<sup>578</sup> Council 'DGI (2019)' (n 360) 34 note 102.

#### 5.4 The Right to Mental Self-Determination as a Protection Against CM

According to what was discussed in the previous and in this chapter, CM has been considered relevant by different bodies under overlapping rights such as autonomy, freedom of thought, the right to hold an opinion and to express it, self-determination, privacy, and informational self-determination.<sup>579</sup> In the field of AI and CM, these rights have a common theoretical foundation in the right to autonomy.<sup>580</sup> Given the unprecedented abilities of AI, even if, in the field of CM, protection can be found in the interpretation of different human rights, it is helpful to take into account all the abovementioned rights under a new fundamental right, the right to mental self-determination, tailored to the unique abilities of the unprecedented emerging technology to interfere with the decision-making processes of individuals, and therefore with how thoughts are formed.

Agreeing with the line of reasoning expressed by Sententia, Bublitz and others mainly from the perspective of neuroenhancements and recognised by the MSI-AUT, the right to hold a thought and express it or share it with others should be distinguished from the right to mental self-determination. The latter involves creating a thought, being in control of the decision-making processes, and being free from cognitive interferences operated by newly emerging technology such as an AI-driven system.<sup>581</sup> The right to express a thought is deprived of any validity if that thought is not self-determined.

Moreover, once expressed, it shall be considered that a thought might bring consequences from a legal perspective. It can result, for example, and for what is more relevant to this analysis, in the expression of consent in a contract. As expressed above, if the law regards individuals as self-determined in their actions and considers them accountable for consequences of their state of mind as if they had free will, then the law shall recognise the right to self-determine the thoughts held and expressed. A fundamental right should be recognised against interferences with individuals' minds, such as those perpetrated by CM.

Therefore, in the age of AI, the fundamental right that can be infringed by CM and shall be protected is a right that is implied in and presupposed by other fundamental rights and that should be expressly recognised: the right to mental self-determination. This new right should include not being hypernudged out of mental self-determination into a contract.

A possible way to protect it is to rely on consent and contract law, as discussed in Chapter 6.

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<sup>579</sup> See Chapter 4.

<sup>580</sup> See 5.2.

<sup>581</sup> See 5.3.

# Chapter 6 A Possible Response to CM via Contract Law and Consent

## 6.1 Introduction

This chapter, bearing in mind the legal context described in Chapter 4 and the theoretical foundation defined in Chapter 5 (as well as the context on dark patterns and hypernudge described in Chapters 2 and 3), will start discussing how contract law can protect individuals from second-generation dark patterns able to use manipulation, preserving their autonomy and their right to mental self-determination from manipulation. The reasons for choosing a contract law perspective are stated in Chapter 1 and will be further discussed hereinafter.

## 6.2 Consent in Contract Law as a Possible Protection

Autonomy and (mental) self-determination can be promoted and protected through consent.<sup>582</sup> As considered in Chapter 5, autonomy can be identified as the capacity of individuals to legislate for themselves,<sup>583</sup> and it is based on understanding via receiving information.<sup>584</sup> Consent can be ‘an enabler of the individual’s autonomy and self-determination’,<sup>585</sup> an expression of the autonomy of the will, in the Kantian meaning expressed as ‘the property of the will by which it is a law to itself’.<sup>586</sup> The belief that consent can protect autonomy and self-determination via understanding and information is apparent in some EU legislation considered above. For example, the EU requires transparency and explicit and informed consent in privacy protection.<sup>587</sup> The need for informed consent was already apparent in the ePrivacy Directive<sup>588</sup> and has been clearly stated since 2018 when the EU regulated data through the GDPR. In the privacy field, consent must be present and meet the standards of being explicit, informed, and specific.<sup>589</sup> The same approach, as considered

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<sup>582</sup> Article 29 Data Protection (n 409) 33; Robin West, ‘Authority, Autonomy, and Choice: The Role of Consent in the Moral and Political Visions of Franz Kafka and Richard Posner’ (1985) 99 HLR 384; Sheila A. M. McLean, *Autonomy, Consent and the Law* (Routledge 2009); Dworkin (n 537); Google, ‘Google Principles on AI’ <<https://ai.google/principles/>> 5, accessed 9 November 2023. For a discussion regarding consent with specific reference to contract law, see 6.3.

<sup>583</sup> European Group on Ethics in Science and New Technologies, *Statement on Artificial Intelligence, Robotics and ‘Autonomous’ Systems* (Publications Office 2018) 9.

<sup>584</sup> On the concept of autonomy, see Mill (n 519); O’Neill, *Autonomy and Trust in Bioethics* (n 537); Dworkin (n 537); Faden and Beauchamp (n 204). Refer to the discussion on consent in this and the following sections.

<sup>585</sup> Article 29 Data Protection (n 409) 33.

<sup>586</sup> See n 512.

<sup>587</sup> See 4.3.1.

<sup>588</sup> Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) [2002] OJ L201/37.

<sup>589</sup> EDPS, ‘A Preliminary Opinion on Data Protection and Scientific Research’ (6 January 2020) 18.



above,<sup>590</sup> is stated in the AIA, according to which existing legislation guarantees that natural persons are appropriately informed and have the free choice not to be subject to profiling or other practices that might affect their behaviour.<sup>591</sup> The manipulation concept itself, then, is connected to consent. As expressed in this analysis,<sup>592</sup> according to Noggle,<sup>593</sup> one of the earliest sustained philosophical discussions of manipulation appears in *A History and Theory of Informed Consent*.<sup>594</sup> Noggle argues that ‘the view that manipulation undermines the validity of consent is widely held among medical ethicists’.<sup>595</sup>

Therefore, relying on consent and preserving it can protect an individual’s right to autonomy and mental self-determination from CM. Thus, the following analysis will focus on consent, specifically on consent in contract law as a possible way to protect individuals from manipulation. As discussed in the following section, contract law relies on consent. Consequently, if autonomy and mental self-determination can be protected through consent, and if contract law preserves consent, contract law can theoretically preserve autonomy and mental self-determination against CM through consent.

Consequently, what will be analysed in this chapter and Chapter 7 is whether contract law doctrines related to the presence of consent and those pertaining to its absence can protect individuals from CM, preserving autonomy and mental self-determination. For the reasons stated in Chapter 1, the following analysis will be conducted on the English and Italian legal systems used as case studies.<sup>596</sup>

### **6.3 Consent. A matter of Objectivity**

Before scrutinising if consent in contract law can protect an individual’s autonomy and mental self-determination against CM, it is necessary to identify a notion of consent. Then, a notion of consent in contract law.

In its literal definition, according to the Cambridge dictionary, consent as a noun means ‘Permission or Agreement’.<sup>597</sup> In the legal field, a possible meaning of consent is ‘Agreement by choice, by one who has the freedom and capacity to make that choice’.<sup>598</sup>

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<sup>590</sup> See 4.3.3.1.2.

<sup>591</sup> AIA 13.

<sup>592</sup> See 3.1.1.

<sup>593</sup> Robert Noggle, 'The Ethics of Manipulation' (n 203).

<sup>594</sup> Faden and Beauchamp (n 204).

<sup>595</sup> Noggle, 'The Ethics of Manipulation' (n 203) 1.

<sup>596</sup> See 1.2.

<sup>597</sup> Cambridge Dictionary, ‘Consent’ <<https://dictionary.cambridge.org/dictionary/english/consent>> accessed 9 November 2023.

<sup>598</sup> Jonathan Law, *A Dictionary of Law* (OUP 2022).

Following the concerns underlined above at international, regional, and local levels, what is meaningful regarding the unlawful use of PT is the relevance of understanding and awareness in giving permission or reaching an agreement, expressing the right to autonomy and mental self-determination.<sup>599</sup> These elements are necessary for a specific kind of consent: informed consent.<sup>600</sup> This concept has been analysed in multiple disciplines, such as moral philosophy, health professions, social sciences, and law.<sup>601</sup> Informed consent is an expression of autonomy intended as personal self-governance by ‘adequate understanding while remaining free from controlling interferences by others and from personal limitations that prevent choice’,<sup>602</sup> and it is an expression of self-determination.<sup>603</sup> Some elements that should be present in informed consent have been identified: volition (the power to use one's will), information, and comprehension.<sup>604</sup> The volition element requires conditions free of coercion and undue influence.<sup>605</sup> The following requirement is access to information to evaluate all the options.<sup>606</sup> Then, it must be considered that possessing information without comprehension will not result in consent, and understanding depends on intelligence, rationality, maturity, and language.<sup>607</sup>

Therefore, consenting means, at least in some disciplines and in some areas of the law, reaching a voluntary agreement or giving permission through a mental process based on volition due

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<sup>599</sup> Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450) 5.

<sup>600</sup> Faden and Beauchamp (n 204); Charles W Lidz and others, *Informed consent: A study of Decisionmaking in Psychiatry* (1st edn, The Guilford Press 1984); Marcela G Del Carmen and Steven Joffe, 'Informed Consent for Medical Treatment and Research: a Review' (2005) 10 *The Oncologist* 636; Onora O'Neill, 'Some Limits of Informed Consent' in Martin Lyon Levine (ed), *The Elderly* (Routledge 2017). See also Art 7 and Recital 32 of the GDPR. For an overview, see Nir Eyal, 'Informed Consent' (2019) *Stanford Encyclopedia of Philosophy* <<https://plato.stanford.edu/entries/informed-consent/>> accessed 8 November 2023.

<sup>601</sup> Faden and Beauchamp (n 204) 3.

<sup>602</sup> *ibid* 7; Dworkin (n 537). See also *Montgomery v Lanarkshire Health Board* [2015] UKSC 11, [2015] SCLR 315, which refers to autonomy, eg, at 108.

<sup>603</sup> Faden and Beauchamp (n 204) 28; McLean (n 582); West (n 582).

<sup>604</sup> Chunlin Leonhard, 'The Unbearable Lightness of Consent in Contract Law' (2012) 63 *Case Western Reserve LR* 57, 67. See also Laura Weiss Roberts, 'Informed Consent and the Capacity for Voluntarism' (2002) 159 *American Journal of Psychiatry* 705.

Regarding case law on informed consent, see *Montgomery* (n 602); *Thefaut v Johnston* [2017] EWHC 497 (QB), which requires adequate time and space. See also *Sidaway v Board of Governors of the Bethlem Royal Hospital and the Maudsley Hospital* [1985] 1 All ER 643 (HL); *Pearce v United Bristol Healthcare NHS Trust* [1998] EWCA Civ 865, [1999] PIQR P 53; *Chester v Afshar* [2004] UKHL 41, [2005] 1 AC 134; *Chatterton v Gerson* [1981] QB 432 (QB); *Hills v Potter* [1984] 1 WLR 641 (QB); *Bolam v Friern Barnet Hospital Management Committee* [1957] 2 All ER 118 (QB).

<sup>605</sup> Donald T. Campbell and Joe Shelby Cecil, 'Protection of the Rights and Interests of Human Subjects in the Areas of Program Evaluation, Social Experimentation, Social Indicators, Survey Research, Secondary Analysis of Research Data, and Statistical Analysis of Data From Administrative Records' in *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*, vol 2 (Department of Health, Education, and Welfare, National Commission for the Protection of Human Subjects of Biomedical Behavioral Research 1978) 14; McLean (n 582) 51. For coercion, see 3.1.1. The notion of undue influence in the EU can be found in n 425. See further for references on undue influence in English law.

<sup>606</sup> McLean (n 582) 43.

<sup>607</sup> Cecil (n 605), 12; McLean (n 582) 47; Julia A Pedroni and Kenneth D Pimple, 'A Brief Introduction to Informed Consent in Research With Human Subjects' (2001) *Scientist and Subjects* 1, 5-6. On understanding see also *The Mental Capacity Act 2005* at 7.1.7.

to information and comprehension. Consequently, given this meaning, consent can theoretically protect the rights to autonomy and mental self-determination.

However, in contract law, even if, as stated by Chapman, the words *consensus ad idem* are well known, the concept of consent is more complex to identify in its elements and not necessarily characterised by the same features described above of understanding and awareness, as it will be discussed from now on.<sup>608</sup>

The term consent is similar in contract law to that of intent, promise, or agreement, which, according to Saprai, have been used interchangeably in the work of Atiyah.<sup>609</sup> As stated by Atiyah, the partition between tort law and contract law derives from consent: 'The traditional distinction between contract and tort which is so built into the ways of thought of the modern lawyer, is based on the supposition that contractual duties derive from consent while tort duties are imposed by law'.<sup>610</sup>

The consent approach is embedded in contract theory and dominates the analyses of the theoretical foundations of modern contract law.<sup>611</sup> Consent has solid emotional appeal in society because individuals pride themselves on the central idea of controlling their destiny.<sup>612</sup> It protects and is the expression of autonomy and freedom of contract.<sup>613</sup> As recently stated by Ebers, analysing the impact of AI in contracts and contracting:

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<sup>608</sup> Matthew Chapman, 'Common Law Contract and Consent: Signature and Objectivity' (1998) 49 N Ir Legal Q 363 363. Chapman (366) argues that the difficulties in defining consent are the consequence of the debate on objectivity and subjectivity, which will be addressed further in this analysis, and that informed consent requirements should be recognised as essential in contract law.

<sup>609</sup> Prince Saprai, 'In Defence of Consent in Contract Law' (2007) 18 King's Law Journal 361, 361 referring to Patrick S Atiyah, *Promises, Morals, and Law* (Clarendon Press 1981) 178, 180.

<sup>610</sup> Patrick S Atiyah, 'Misrepresentation, Warranty and Estoppel' (1969) Alberta LR 347, 353. However, this partition may not apply to tortious duties which are based on assumptions of responsibility. See Stathis Banakas, 'Voluntary Assumption of Tort Liability in English Law: a Paradox?' (2009) 4 InDret 1. Moreover, the partition may not apply to concurrent liability. For the notion of concurrent liability, see Hugh G Beale (ed), *Chitty on contracts* (34th edn, Sweet & Maxwell 2008) 29-007.

<sup>611</sup> Regarding the foundation of contract in Roman Law and the *summa divisio* in the *Institutiones* of Gaius, see Arangio-Ruiz (n 62). Regarding consent in contract law, see Randy E Barnett, 'A Consent Theory of Contract' (1986) 86 Columbia LR 269; Geri I Bigliuzzi and others, *Diritto Civile. Obbligazioni e Contratti* (Il Sistema Giuridico Italiano 1989); C Massimo Bianca, *Diritto Civile. Il contratto*, vol 3 (Giuffrè 2000); Deryck Beyleveld and Roger Brownsword, *Consent in the Law* (Bloomsbury Publishing 2007); Brian Bix, 'Consent in Contract Law' in Franklin Miller and Alan Wertheimer (ed), *The Ethics of Consent - Theory and Practice* (OUP 2010); Larry A Di Matteo, *Commercial Contract Law: Transatlantic Perspectives* (CUP 2013); Orit Gan, 'The Many Faces of Contractual Consent' (2017) 65 Drake LR 615; Nancy S Kim, 'Relative Consent and Contract Law' (2017) 18 Nev LJ 165; Nathan B Oman, 'Reconsidering Contractual Consent: Why we Shouldn't Worry too much about Boilerplate and other Puzzles' (2017) 83 Brooklyn LR 215; Karla O'Regan, *Law and Consent: Contesting the Common Sense* (Routledge 2019); Saprai (n 609); Chapman (n 608) 363; R. George Wright, 'Clicking Through Consent' (2019) 64 Wayne LR 315.

Regarding English law, see *Adams v Lindsell* (1818) 1 B & Ald 681, 106 ER 250 and Robert Joseph Pothier, *A Treatise on the Law of Obligations, or Contracts* (Robert H. Small 1839), quoted in Beale (n 610). See also, regarding duress and the absence of consent, *Barton v Armstrong* [1976] AC 104 (PC Australia) 121, and *DPP of Northern Ireland v Lynch* [1975] UKHL 5, [1975] AC 653. See also *Lindsey v Heron & Co* (1921), 50 OLR 1, 8 (Middleton J).

<sup>612</sup> Leonhard, 'The Unbearable Lightness of Consent in Contract Law' (n 604) 65.

<sup>613</sup> *ibid* 57. See also Michael J Trebilcock, *The limits of Freedom of Contract* (HUP 1993); Peter A Alces, 'Contract Reconceived' (2001) 96 Northwestern University LR 39; West (n 582); Bianca, *Il Contratto* (n 611) 11.

Historically, contract law is based on the principle of freedom of contract and party autonomy. As a rule, a natural and legal person should be free to decide whether or not to contract, with whom to contract, and to agree freely on the terms of their contract. The underlying idea is the assumption that freedom of contract – under the condition that the parties to a contract are fully informed and at an equal bargaining position – leads to justice: ‘Qui dit contractuel, dit juste’.<sup>614</sup>

Therefore, consent protects and expresses autonomy and, consequently, the right to mental self-determination. However, the concept of consent in contract law is complex.<sup>615</sup> Being conscious of the concept's complexity and related theories on what consent in contract law is or should be, to understand if consent in contract law can be a defence against CM, what will be addressed from now on is how the courts have addressed consent and, consequently, how it can be stated that a voluntary agreement has been reached in practice.<sup>616</sup> As it will be discussed further and for what is relevant to this analysis, consent in contract law is disconnected from the meaning identified above of reaching a voluntary agreement or giving permission through a mental process based on volition due to information and comprehension. The concept of consent in the practice of contract law is disconnected from an individual's inner state of mind, awareness and understanding.<sup>617</sup> This disconnection might constitute an issue in considering consent in contract law as a possible response of a legal system to CM and as a possible protection of autonomy and mental self-determination.

A relevant foundation for the understanding of consent in contract law (and of the abovementioned disconnection) can be found concerning the English legal system in the judgment of Blackburn J in *Smith v Hughes*:

If, whatever a man's real intention may be, he so conducts himself that a reasonable man would believe that he was assenting to the terms proposed by the other party, and that

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<sup>614</sup> Ebers (n 412) 24. ‘Qui dit contractuel, dit juste’ means in English ‘Who says contractual, says right’ (own translation). See Louise Rolland, ‘Qui Dit Contractuel, Dit Juste (Fouillee)... en Trois Petits Bonds, a Reculons’ (2005) 51 McGill LJ 765.

<sup>615</sup> Hugh Collins, *The Law of Contract* (CUP 2003) 132; Chapman (n 608) 365.

<sup>616</sup> Concerning contract formation, see Michael Furmston and Greg J Tolhurst, *Contract Formation: Law and Practice* (OUP 2010); John Cartwright, *Formation and Variation of Contracts* (3rd edn, Sweet & Maxwell 2021); Paul S Davies, ‘Contract Formation and Implied Terms’ (2018) 77 CLJ 22; Barnett (n 611) 1 explains that there can be considered five consent traditional theories: will, reliance, efficiency, fairness, and bargain. These theories can be divided into three types. Will and reliance theories are party-based. Efficiency and fairness theories are standards-based. The bargain theory is process-based. Anne de Moor, ‘Intention in the Law of Contract: Elusive or Illusory?’ (1990) 106 LQR 632 explains the differences between contract formation and interpretation concerning the theory of the will. See also Bianca, *Il Contratto* (n 611) 18 ss for a discussion regarding the theory of the will and different contract theories and Beale (n 610).

<sup>617</sup> See the following sections.

other party upon that belief enters into the contract with him, the man thus conducting himself would be equally bound as if he had intended to agree to the other party's terms.<sup>618</sup>

This judgment clearly states that consent is to be given meaning in relation to a conduct that induces a belief. The same idea can be found in the words of Lord Clarke in the judgment of the Supreme Court in *RTS Flexible Systems Ltd v Molkerei Alois Muller GmbH & Co (UK Production)*:

Whether there is a binding contract between the parties and, if so, upon what terms depends upon what they have agreed. It depends not upon their subjective state of mind, but upon a consideration of what was communicated between them by words or conduct, and whether that leads objectively to a conclusion that they intended to create legal relations and had agreed upon all the terms which they regarded or the law requires as essential for the formation of legally binding relations.<sup>619</sup>

These two statements regarding the existence of a voluntary agreement highlight the disconnection mentioned above between what consent means (being an internal state of mind) and what it means in the practice of the courts in contract law. This disconnection accompanied the contract law theories developed in the nineteenth century. As stated by Bianca, three theories were formulated in the 1800s.<sup>620</sup> The first one is the Willensdogma, the theory of the will, expressed for the first time by Bekker using these words.<sup>621</sup> According to this theory, a contract is the expression of the creative will of the individual, then manifested in exterior signs. A contract is the meeting of the actual minds of two individuals,<sup>622</sup> and it appeals to the notion that a contract promotes autonomy and freedom.<sup>623</sup> As considered by Bianca,<sup>624</sup> however, the theory of the will has a contrasting theory based on the belief that a contract is not created by the will but by a declaration to be understood according to the context.<sup>625</sup> A third major theory, then, was developed, moving from the premise that the will, as a psychological fact purely internal, is not perceivable, and therefore, the essence of a contract is not the will nor a declaration but a social, relational phenomenon. The relational contract

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<sup>618</sup> (1870-1871) LR 6 QB 597 (QB) 607.

<sup>619</sup> [2010] UKSC 14 [45].

<sup>620</sup> Bianca, *Il Contratto* (n 611) 18.

<sup>621</sup> Ernst Immanuel Bekker, *System des Heutigen Pandektenrechts*, vol 2 (H Böhlau 1889).

<sup>622</sup> Roscoe Pound, 'The Role of the Will in Law' (1954) 68 HLR 1, 4.

<sup>623</sup> Christopher A Riley, 'Designing Default Rules in Contract Law: Consent, Conventionalism, and Efficiency' (2000) 20 OJLS 367, 369; Charles Fried, *Contract as Promise: a Theory of Contractual Obligation* (2nd edn, OUP 2015); Trebilcock, *The Limits of Freedom of Contract* (n 613); Barnett (n 611).

<sup>624</sup> Bianca, *Il Contratto* (n 611) 18.

<sup>625</sup> Pound, 'The Role of the Will in Law' (n 622) 14.

theorists consider that the essence of a contract relies on a social convention.<sup>626</sup> According to this theory, more than searching for what the parties subjectively agreed on meeting their minds, the focus should be on what objectively happened, according to a conventional meaning attached to their words. The theory of the will led the scene in the 1800s, and it was born and developed in a civil law context to be later acquired in a common law context, which was highly influenced by the work of Pothier during the nineteenth century.<sup>627</sup> In common law, the theory of the will was modified and adapted to a different legal system, more focused on remedies than on theory.<sup>628</sup>

Therefore, the theory of the will is present in contract law theories related to consent in common law and civil law, and, from the shared civil law origin, the two systems evolved differently. However, as discussed hereinafter, common law and civil law faced the same issue and reached the same result. The issue that appears evident in the abovementioned evolution of the theories regarding consent from the original theory of the will is that consent is an internal state of mind. The thoughts must be brought outside, communicated with words or conduct, and therefore with signs.<sup>629</sup> This analysis has already considered that different meanings can be attributed to the same signs.<sup>630</sup> Being subject to different meanings, the signs, the expression of an inner state of mind by words or conduct, are subject to interpretation.<sup>631</sup>

In finding an individual's inner state of mind, a court may adopt a subjective approach, considering the party's actual thoughts, or an objective approach, referring to how a reasonable person would interpret a party's thoughts from their signs.<sup>632</sup> As discussed in the following sections, the objective approach prevails in both systems used as case studies.

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<sup>626</sup> Riley (n 623) 374; Jay M Feinman, 'The Significance of Contract Theory' (1989) 58 U Cin LR 1283; Charles J Goetz and Robert E Scott, 'Principles of Relational Contracts' (1981) 67 Va LR 1089; David Campbell, 'The Relational Constitution of the Discrete Contract' in D Campbell and P Vincent-Jones (eds), *Contract and Economic Organisation: Socio-Legal Initiatives* (Dartmouth 1996).

<sup>627</sup> Gordley (n 60); Lobban, 'Introduction' (n 60) 302; David Ibbetson, 'The Rise of the Will Theory', *A Historical Introduction to the Law of Obligations* (OUP 2001); Pothier, *A Treatise on the Law of Obligations, or Contracts* (n 611).

<sup>628</sup> Lobban, 'Introduction' (n 60) 307; Max Radin, 'Contract Obligation and the Human Will' (1943) 43 Columbia LR 575; David J Ibbetson, *A Historical Introduction to the Law of Obligations* (OUP 2001).

<sup>629</sup> See De Saussure (n 132).

<sup>630</sup> See 2.4.1.2.

<sup>631</sup> Regarding the necessary expression of inner states through signs, see Adam Kramer, 'Common Sense Principles of Contract Interpretation (and how we've been using them all along)' (2003) 23 OJLS 173; Leonard Hoffmann, 'Language and Lawyers' (2018) 134 LQR 553. On the interpretation of contracts, see Kim Lewison, *The Interpretation of Contracts* (6th edn, Sweet & Maxwell 2015); Ryan Catterwell, *A Unified Approach to Contract Interpretation* (Hart Publishing 2020); Catherine Mitchell, *Interpretation of Contracts* (Taylor & Francis Group 2018).

<sup>632</sup> Joseph M Perillo, 'The Origins of the Objective Theory of Contract Formation and Interpretation' (2000) 69 Fordham LR 427; Wayne Barnes, 'The Objective Theory of Contracts' (2008) 76 University of Cincinnati LR 1119; R George Wright, 'Objective and Subjective Tests in the Law' (2017) 16 UNHL Rev 121. Regarding the objective and subjective theories, see also Peter Meijes Tiersma, 'The Language of Offer and Acceptance: Speech Acts and the Question of Intent' (1986) 74 California LR 189; James Gordley, René David and Arthur Taylor Von Mehren, *International Encyclopedia of Comparative Law: Contracts in General; Ch. 2: Contract in Pre-commercial Societies and in Western History* (Mohr Siebeck 1997); Robert Joseph Pothier, *Treatise on the Contract of Sale* (The Lawbook Exchange, Ltd. 1999); Immanuel Kant, *The Philosophy of Law: An Exposition of the Fundamental Principles of Jurisprudence as the Science of Right* (The Lawbook Exchange, Ltd. 2001); Bianca, *Il Contratto* (n 611) 407.

### 6.3.1 Objectivity According to English Contract Law

Under English law, the courts will normally apply an objective test in determining if an agreement has been reached and on which terms.<sup>633</sup> According to the objective approach, what is considered in English contract law is not what an individual actually thinks (their actual internal state of mind while consenting) but an observable behaviour.

Therefore, a distinction has to be considered between an apparent reality (signs, such as words and conduct) and an individual's inner thoughts in the following reasoning. The abovementioned distinction is expressed in *Centrovincial Estates Plc v Merchant Investors Assurance Co Ltd* in the words of Slade LJ:

It is a well-established principle of English law of contract that an offer falls to be interpreted not subjectively by reference to what has actually passed through the mind of the offeror, but objectively, by reference to the interpretation which a reasonable man in the shoes of the offeree would place on the offer.<sup>634</sup>

The objective test refers to a reasonable man (and not to the actual offeree) and cannot consider what 'passed through the mind' of the counterparty. Therefore, the task of a court is not to discover the parties' actual thoughts but to decide what one party could have reasonably understood from the behaviour of the other. Accordingly, the courts will examine the parties' conduct to ascertain whether said conduct generates a sufficient appearance of an agreement. The courts, instead, will not investigate the thoughts of the parties.<sup>635</sup> Thus, an agreement can be found in words or conduct even if no agreement exists in the mind of one party to the contract. In *OT Africa Line Ltd v Vickers Plc*,<sup>636</sup> for example, the court found the existence of an agreement to settle a claim for £150,000 while the actual intention was to settle for £155,000. The decision found its conceptual grounds in the fact that the words used conveyed an objectively ascertainable meaning, even if the meaning did not correspond to the inner state of mind of the offeror.

Understanding consent via the objective test described above seems contrary to the meaning of consent as an inner state of mind. However, there can be relevant reasons why the courts prefer an

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<sup>633</sup> *Smith v Hughes* (n 618); *Falck v Williams* [1900] AC 176; *Pagnan SpA v Fenal Products Ltd* [1987] 2 Lloyd's Rep. 601 (CA) 610; *Guernsey v Jacob UK Ltd* [2011] EWHC 918 (TCC), [2001] 1 All ER (Comm) 175, [41]; *Global 5000 Ltd v Wadhawan* [2011] EWHC 853 (Comm), [2011] 2 All ER (Comm) 190 [45]; *VTB Capital Plc v Nutritek International Corp* [2013] UKSC 5, [2013] 1 All ER 1296 [140]; Beale (n 610) 4-002 and 4-003; Jack Beatson, Andrew Burrows and John Cartwright, *Anson's law of contract* (OUP 2020) 268.

<sup>634</sup> [1983] Com LR 158 (CA).

<sup>635</sup> *Bowerman v ABTA Ltd* [1995] NLJ 1815 (CA); *Covington Marine Corp v Xiamen Shipbuilding Industry Co Ltd* [2005] EWHC 2912 (Comm), [2006] 1 Lloyd's Rep. 748 [43]; Beale (n 610) 4-003.

<sup>636</sup> [1996] 1 Lloyd's Rep 700 (QB).

objective approach.<sup>637</sup> The more apparent reason is the inaccessibility of an individual's internal state of mind. As Lord Blackburn stated in *Brogden v Metropolitan Railway Co* citing Brian CJ: 'for it is trite law that the thought of man is not triable, for even the devil does not know what the thought of man is'.<sup>638</sup> It shall be considered, then, the necessity to avoid fraud. The person who knows what he thinks is the person himself, and relying on that person's assertion regarding their subjective state of mind or memory is not advisable.<sup>639</sup> A further reason found in the literature is a need for certainty in transactions and the necessity to protect the other party's reasonable expectations.<sup>640</sup> It would not be acceptable to rely on one party's assertion that they meant the contrary of what they said (up instead of down).<sup>641</sup> As stated by Treitel, 'Considerable uncertainty would result if A, after inducing B reasonably to believe that he (A) had agreed to certain terms, could then escape liability merely by showing that he had "no real intention" to enter into that agreement'.<sup>642</sup>

Therefore, consent is not determined by one party's real intention but by the reasons the party gives another person to believe that he has one intention. Accordingly, consenting in English contract law seems more like an exercise in communication than an actual mental state, which shall be analysed in its rules to understand its consequences concerning CM.<sup>643</sup>

### 6.3.1.1 *The Perspective of the Objective Test in English Contract Law*

In analysing when consent can be regarded as existent in English contract law, it should be considered not solely that an individual's actual thoughts are not the object of the investigation under an objective test but also a further issue. There could be different perspectives in observing the parties' words or conduct and consequent evidence to be analysed.<sup>644</sup> The objective test has, in English contract law, three possible different perspectives.<sup>645</sup>

The first one is the standard of detached objectivity. In this perspective, the facts must be seen by a detached observer (like a fly on the wall, as called by Howarth).<sup>646</sup> The viewpoint is, therefore, independent from that of either contracting party. However, it has to be noted that detached objectivity

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<sup>637</sup> Perillo (n 632); Kramer (n 631); Saprai (n 609) 364; Joseph Raz and Patrick S Atiyah, 'Promises in Morality and Law' (1982) 95 HLR 916; Mindy Chen-Wishart, *Contract Law* (7th edn, OUP 2022) 46.

<sup>638</sup> (1877) 2 App Cas 666 (HL) 692.

<sup>639</sup> *Tamplin v James* (1880) 15 ChD 215 (CA) 221; Timothy AO Endicott, 'Objectivity, Subjectivity, and Incomplete Agreements' (2000) Oxford Essays in Jurisprudence 151, 3.

<sup>640</sup> Pound, 'The Role of the Will in Law' (n 622) 2.

<sup>641</sup> Endicott (n 639) 2.

<sup>642</sup> Edwin Peel, *Treitel on the Law of Contract* (14th edn, Sweet & Maxwell 2015) 1-002.

<sup>643</sup> For words' meaning and the thoughts' relevance, see Kramer (n 631) 191.

<sup>644</sup> William Howarth, 'The Meaning of Objectivity in Contract' (1984) 100 LQR 265; William Howarth, 'A Note on the Objective of Objectivity in Contract' (1987) 103 LQR 527; Chen-Wishart, *Contract Law* (n 637) 47.

<sup>645</sup> William Howarth, 'The Meaning of Objectivity in Contract' (1984) 100 LQR 265; J Vorster, 'A Comment on the Meaning of Objectivity in Contract' (1987) 103 LQR 274. See also Chen-Wishart, *Contract Law* (n 637) 47; Ewan McKendrick, *Contract Law* (14th edn, Palgrave 2021) 21.

<sup>646</sup> Howarth (n 645) 10; JR Spencer, 'Signature, Consent, and the Rule in *L'Estrange v. Graucob*' (1973) 32 CLJ 104.



can bring undesirable results. In *Upton on Severn RDC v Powell*,<sup>647</sup> for example, the defendant's house was on fire, and he called the local Upton police asking for 'the fire brigade'. He was entitled to the services of the local fire brigade free of charge. However, the police called a fire brigade from a different district. The Upton Fire Brigade rendered the service thinking that they were rendering gratuitous services in their area. Therefore, the idea for a service to be paid was in none of the parties' minds. However, it was held that the defendant was contractually bound to pay for the services. In this case, the facts were observed from a detached perspective that seems to find little appreciation in the following cases due to its possibly unfair consequences.<sup>648</sup> However, the concept of observing the parties from the outside remains in the words of the courts. For example, in *Chartbrook Ltd v Persimmon Homes Ltd*, Lord Hoffmann stated:

What is clear from these cases is that there is not, so to speak, a limit to the amount of red ink or verbal rearrangement or correction which the court is allowed. All that is required is that it should be clear that something has gone wrong with the language and that it should be clear what a reasonable person would have understood the parties to have meant.<sup>649</sup>

In this statement, there is a reference to a reasonable person, not one of the parties, but a third party that observes the parties.

The second interpretation is called promisee objectivity and relies on interpreting the words as the promisee reasonably understood them. The third interpretation is promisor objectivity, which considers the facts from the promisor's perspective.<sup>650</sup> However, Vorster has underlined that delineating a promisor from a promisee could be difficult, considering that both parties make offers and acceptances in a bilateral contract and that there seems to be little reference to the promisor's objectivity in cases.<sup>651</sup> Therefore, it has been found to be preferable to consider the point of view of both parties and that each party's actions should be interpreted as an honest and reasonable person in the addressee's position would understand them.<sup>652</sup>

However, whichever perspective is adopted, the objective test will still refer to a reasonable person's hypothetical thoughts and not to the inner state of mind of the parties.

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<sup>647</sup> [1942] 1 All ER 220 (CA).

<sup>648</sup> Patrick S Atiyah, *The Rise and Fall of Freedom of Contract* (OUP 1985) 663; Spencer, 'Signature, Consent, and the Rule in *L'Estrange v. Graucob*' (n. 646) 110, 113; Vorster (n. 645) 2I.

<sup>649</sup> [2009] UKHL 38, [2009] AC 1101 [25].

<sup>650</sup> Howarth (n 645) 266, 271.

<sup>651</sup> Vorster (n 645) 4.

<sup>652</sup> *ibid* 5, referring to *Paal Wilson & Co. A/S v Partenreederei Hannah Blumenthal* [1983] 1 AC 854 (HL) 914.

### 6.3.1.2 Formal and Contextual Interpretation in English Contract Law

According to what was stated above, in considering the signs, the courts will generally apply an objective test (not taking into account what is in the parties' minds), and the perspective will typically be that of a reasonable addressee or, in any case, of a reasonable person.

It shall now also be considered that the interpretation of the signs finds its boundaries in which signs are to be taken into account, with specific relation to interpreting contract terms. A contract's construction is based on principles stated in leading cases that relate primarily to written contracts.<sup>653</sup>

The interpretation can be formal or contextual.<sup>654</sup> The distinction between formal and contextual interpretation has recently been the object of a debate between Lord Sumption (who hopes to return to a more formal approach)<sup>655</sup> and Lord Hoffmann (who patronised the contextual approach, as discussed hereinafter).<sup>656</sup> Both reconstruct the routes of a strict, formal interpretation linked to the meaning of the words as they are written in a document.

Formal interpretation is a highly narrow concept. It considers the words to be interpreted primarily by their literal meaning, being acceptable to relate this meaning to the context solely when the words themselves could express more than one meaning.<sup>657</sup>

The contextual interpretation, instead, is expressed in *Mannai Investment Co Ltd v Eagle Star Life Assurance Co Ltd*<sup>658</sup> and was explained by Lord Hoffmann's restatement in *Investors Compensation Scheme Ltd v West Bromwich Building Society*: 'the meaning of words is a matter of dictionaries and grammars; the meaning of the document is what the parties using those words against the relevant background would reasonably have been understood to mean'.<sup>659</sup>

The contextual approach was reinforced by subsequent decisions, stating the need to look at all the relevant background information when interpreting a contract.<sup>660</sup> This approach seems to be now well recognised in contract law.<sup>661</sup> Lord Neuberger in *Arnold v Britton*<sup>662</sup> stated that when

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<sup>653</sup> *Chartbrook* (n 649); *Re Sigma Finance Corporation (In Administration)* [2009] UKSC 2, [2009] BCC 393; *Rainy Sky SA v Kookmin Bank* [2011] UKSC 50, [2011] 1 WLR 2900; *Arnold v Britton* [2015] UKSC 36, [2015] AC 1619; *Wood v Capita Insurance Services Ltd* [2017] UKSC 24, 171 Con LR 1. The principles of interpretation of commercial documents were summarised by Popplewell J in *Lukoil Asia Pacific Pte Ltd v Ocean Tankers (Pte) Ltd (The "Ocean Neptune")* [2018] EWHC 163 (Comm), [2018] 1 Lloyd's Rep 654.

<sup>654</sup> See Mitchell, *Interpretation of Contracts* (n 631) 122 ss for a general discussion of formalism and contextualism.

<sup>655</sup> Lord Sumption, 'A Question of Taste: The Supreme Court and the Interpretation of Contracts' (2017) 17 OJCLJ 301.

<sup>656</sup> Hoffmann (n 631).

<sup>657</sup> *ibid* 8; *Charrington & Co Ltd v Wooder* [1914] AC 71 (HL); *Shore v Wilson* (1842) 8 ER 450.

<sup>658</sup> [1997] AC 749 (HL).

<sup>659</sup> [1998] 1 WLR 896 (HL) 3.

<sup>660</sup> *White v White* [2001] UKHL 9, [2001] 2 All ER 43; *RTS Flexible Systems Ltd* (n 619); *Scottish Power Plc v Britoil (Exploration) Ltd*, (1997) 94(47) LSG 30 (CA); *NLA Group Ltd v Bowers* [1999] 1 Lloyd's Rep 109 (QB) 112; *Chartbrook* (n 649).

<sup>661</sup> Kramer (n 631) 178.

<sup>662</sup> (n 653).

interpreting a written contract, the court should identify the intention of the parties by reference to ‘what a reasonable person having all the background knowledge which would have been available to the parties would have understood them to be using the language in the contract to mean’.<sup>663</sup>

According to a contextual interpretation, the court would put itself in the same factual matrix the parties were in when the contract came into existence. The court would consider which elements were available to the parties that would have affected the understanding of the documents provided as evidence.

However, it must be noted that, in considering the factual matrix, the courts will not consider the parties' subjective understanding or meaning.<sup>664</sup> The matrix is objective, even if the range of material that will be considered could seem to be consistent, as expressed by Lord Hoffmann in *Investors Compensation Scheme Ltd v West Bromwich Building Society*: ‘Subject to the requirement that it should have been reasonably available to the parties ... it includes absolutely anything which would have affected the way in which the language of the document would have been understood by a reasonable man’.<sup>665</sup>

However, as stated later by Lord Hoffmann, the accessible factual matrix has limits, consistent in facts that were known or reasonably available to both (or all) of the parties to the contract.<sup>666</sup> If the background were available solely to one party, this would not suffice.<sup>667</sup>

It shall also be noted that an essential limit on the range of permissible materials is the parties' pre-contractual negotiations or, for what is more relevant to this analysis, their intentions.<sup>668</sup> As stated in *Chartbrook*,<sup>669</sup> the court is not entitled to look at what the parties said or did during the negotiation, and a ‘contract is not about what is in people’s heads’.<sup>670</sup> In *Prenn v Simmonds* it was stated by Lord Wilberforce:

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<sup>663</sup> Citing Lord Hoffmann in *Chartbrook* (n 649).

<sup>664</sup> *IRC v Raphael* [1935] AC 96 (HL) 142; *Prenn v Simmonds* [1971] 1 WLR 1381 (HL) 1385; *Reardon Smith Line Ltd v Yngvar Hansen-Tangen* [1976] 1 WLR 989 (HL) 996; *Harmony Shipping Co SA v Saudi-Europe Line Ltd* [1981] 1 Lloyd's Rep. 377 (CA) 416; *Nearfield Ltd v Lincoln Nominees Ltd* [2006] EWHC 2421 (Ch), [2007] 1 All ER (Comm) 421 [63]; *Scottish Power UK Plc v BP Exploration Operating Co Ltd* [2015] EWHC 2658 (Comm), [2016] 1 All ER (Comm) 536 [21].

<sup>665</sup> (n 659) 912–913.

<sup>666</sup> *Bank of Credit and Commerce International SA v Ali* [2001] UKHL 8, [2002] 1 AC 251 [39].

<sup>667</sup> *Arnold* (n 653) 21; *Kason Kek-Gardner Ltd v Process Components Ltd* [2017] EWCA Civ 2132, [2018] 2 All ER (Comm) 381 [16]; *Spirit Energy Resources Ltd v Marathon Oil UK LLC* [2019] EWCA Civ 11 [33].

<sup>668</sup> Yihan Goh, 'A Wrong Turn in History: Re-understanding the Exclusionary Rule Against Prior Negotiations in Contractual Interpretation' (2014) 2014 JBL 360; Patrick Ostendorf, 'The Exclusionary Rule of English Law and its Proper Characterisation in the Conflict of Laws - Is it a Rule Of Evidence or Contract Interpretation?' (2015) 11 Journal of Private International Law 163.

<sup>669</sup> (n 649).

<sup>670</sup> *ibid* 1109.

In my opinion, then, evidence of negotiations, or of the parties' intentions, and a fortiori of [the claimant's] intentions, ought not to be received, and evidence should be restricted to evidence of the factual background known to the parties at or before the date of the contract, including evidence of the 'genesis' and objectively the 'aim' of the transaction.<sup>671</sup>

The abovementioned debate between Lord Sumption and Lord Hoffmann, and more generally between the interpretation of signs in a more literal or contextual way, does not erase and shall be integrated with a different rule in interpreting the signs objectively, particularly relevant to this analysis. As stated in *L'Estrange v F. Graucob Ltd*,<sup>672</sup> a signature on a contract is the best evidence of if and on what the parties agreed on.<sup>673</sup> As Scrutton LJ stated, 'When a document containing contractual terms is signed, then, in the absence of fraud, or, I will add, misrepresentation, the party signing it is bound, and it is wholly immaterial whether he has read the document or not'.<sup>674</sup>

Therefore, the general rule is that an individual of full age and understanding is bound by their words and signature on a document. It is not generally relevant whether an individual reads and understands the document.<sup>675</sup>

However, the lack of reading and understanding is a fundamental issue in online contracts, specifically when a PT led by an AI system is involved, as will be discussed in the following sections.<sup>676</sup>

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<sup>671</sup> (n 664).

<sup>672</sup> [1934] 2 KB 394 (KB).

<sup>673</sup> Chapman (n 608); Margaret N Kniffin, 'Conflating and Confusing Contract Interpretation and the Parol Evidence Rule: Is the Emperor Wearing Someone Else's Clothes' (2009) 62 Rutgers LR 75. See also Beale (n 610) 12–096. Chen-Wishart, *Contract Law* (n 637) 49, states that a signed contract is superior to an unsigned contract, which is superior to other written or spoken words. In the hierarchy, non-verbal conduct would follow (as a contractual performance), followed by silence or omissions.

<sup>674</sup> *L'Estrange* (n 672) 403.

<sup>675</sup> *Saunders v Anglia Building Society* [1971] AC 1004 (HL); *Parker v South Eastern Railway Co* (1877) 2 CPD 416 (CA) 421; *Howatson v Webb* [1907] 1 Ch 537 (CH); *McCutcheon v David MacBrayne Ltd* 1964 SC (HL) 28, 132–134; *Bahamas Oil Refining Co v Kristiansands Tank-rederie A/S* [1978] 1 Lloyd's Rep 211 (Com Ct); *Charlotte Thirty v Croker* (1990) 24 Con LR 46 (QB); *Toll (FGCT) Pty Ltd v Alphapharm Pty Ltd* (2004) 211 ALR 342; *Peekay Intermark Ltd v Australia and NZ Banking Group Ltd* [2006] EWCA Civ 386, [2006] 2 Lloyd's Rep 511 [43]; *Coys of Kensington Automobiles Ltd v Pugliese* [2011] EWHC 655 (QB), [2011] 2 All ER (Comm) 664 [40] (In this case, the reasons for not understanding the content of the document were that the party was an Italian speaker, and the document was in English); James Spigelman, 'Contractual Interpretation: A Comparative Perspective' (2011) 85 Australian Law Journal 412; Beale (n 610) 5-049.

<sup>676</sup> Chunlin Leonhard, 'Dangerous or Benign Legal Fictions, Cognitive Biases, and Consent in Contract Law' (2017) 91 St John's LR 385; Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450) 2.

### 6.3.1.3 Objectively Determining Consent in English Contract Law

According to the above, if the parties agree and the content of the agreement is usually considered in English contract law according to the following principles:

- under an objective test, not investigating the parties' actual thoughts;
- from the perspective of a reasonable person in the position of the addressee (or offeree, in different terminology);
- considering the factual matrix reasonably available to the parties;
- not taking into account evidence of negotiation or the parties' intentions.

Once the parties have, under all the appearances, agreed, reservations or qualifications that are not expressed in signs will not usually be taken into account.<sup>677</sup> Moreover, if the agreement was reduced to writing, the parties will generally be bound by their signature, whether they read or understood the legal effects of their signature. If the parties, therefore, used signs that are objectively interpretable from the perspective of a reasonable person as expressing consent, they would generally find themselves in an agreement, even if their inner intention was not to be bound.

Therefore, how signs will be regarded as an explicit objective index of consent should be scrutinised, locking the parties into a contract. However, it shall be noted that the general concept of freedom of contract also has a counterparty in the freedom from contract, the freedom not to be bound to an unwanted contract.<sup>678</sup> Therefore, later in this analysis, which elements can be considered to exclude the existence of an agreement will be identified.<sup>679</sup>

In analysing signs expressing consent, a general rule is that an agreement will be considered to be reached when an offer made by one of the parties is accepted by the other to whom the offer is addressed.<sup>680</sup> As stated in *Butler Machine Tool Co v Ex-Cell-O Corp (England) Ltd*,<sup>681</sup> the mirror image rule of contract formation shall be followed. According to the mirror image rule, the court should find in the documents or words that passed between the parties a clear and not equivocal offer mirrored by a clear and not equivocal acceptance.<sup>682</sup> The offer is binding as soon as it is accepted.<sup>683</sup>

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<sup>677</sup> *Thoresen Car Ferries Ltd v Weymouth Portland BC* [1977] 2 Lloyd's Rep 614 (Com Ct); *Maple Leaf Volatility Master Fund v Rouvroy* [2009] EWCA Civ 1334, [2010] 2 All ER (Comm) 788 [10]; *Air Studios (Lyndhurst) Ltd v Lombard North Central Plc* [2012] EWHC 3162 (QB), [2013] 1 Lloyd's Rep 63 [5].

<sup>678</sup> Todd D Rakoff, 'Is Freedom from Contract Necessarily a Libertarian Freedom' (2004) Wis LR 477; Omri Ben-Shahar, 'Freedom From Contract' (2004) Wis LR 261; Chen-Wishart, *Contract Law* (n 637) 56.

<sup>679</sup> See Chapter 7.

<sup>680</sup> Cartwright, *Formation and Variation of Contracts* (n 616); Beale (n 610) 4-001.

<sup>681</sup> [1979] 1 WLR 401 (CA); see also *Gibson v Manchester CC* (n 690).

<sup>682</sup> McKendrick (n 645) 23.

<sup>683</sup> *Air Transworld Ltd v Bombardier Inc* [2012] EWHC 243 (Comm), [2012] 1 Lloyd's Rep 349 [75]; *Glencore Energy UK Ltd v Cirrus Oil Services Ltd* [2014] EWHC 87 (Comm), [2014] 1 All ER (Comm) 513 [59]; *Crest Nicholson (Londinium) Ltd v Akaria Investments Ltd* [2010] EWCA Civ 1331 [24], [26]; Beale (n 610) 4-003.

What shall be underlined is that, under an objective test, an apparent intention to contract may be sufficient if the signs are enough to induce a reasonable person to think that the offeror intends to be bound, even if this apparent intention does not correspond to their actual state of mind.<sup>684</sup> The objective test, as described, applies to the offer and the acceptance.<sup>685</sup>

Moreover, while the parties are contracting, what will be taken into account is if, considering the entire exchange of correspondence, the parties objectively appeared to agree to the same terms.<sup>686</sup> Accordingly, the courts can consider an agreement as reached even if one or both had reservations if those reservations are not expressed in the correspondence.<sup>687</sup> In *New Zealand Shipping Co Ltd v AM Satterthwaite & Co Ltd (The Eurymedon)*, Lord Wilberforce stated that English law takes a practical approach, often at the cost of forcing the facts to fit into concepts such as offer and acceptance.<sup>688</sup> Consequently, Lord Denning, in *Gibson v Manchester CC*, stated:

It is a mistake to think that all contracts can be analysed into the form of offer and acceptance ... You should look at the correspondence as a whole and at the conduct of the parties ... [to decide] whether the parties have come to an agreement on everything that was material.<sup>689</sup>

According to Lord Denning, therefore, the essence of a contract should be an agreement on all the material terms, and those material terms seem to reflect the real intention of the parties. The court, then, should deal with possible differences on immaterial terms. However, Lord Denning's approach does not reflect the view of the House of Lords. For example, in *Gibson v Manchester CC*, Lord Diplock considers contracts that could not be analysed under the mirror image rule as exceptional.<sup>690</sup>

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<sup>684</sup> *Ignazio Messina & Co v Polskie Linie Oceaniczne* [1995] 2 Lloyd's Rep 566 (Com Ct) 571; *Bowerman* (n 635); *Covington Marine Corp* (n 635) 43; *G. Percy Trentham Ltd v Archital Luxfer Ltd* [1993] 1 Lloyd's Rep 25 (CA) 27; *The Aramis* [1989] 1 Lloyd's Rep 213 (CA) (in this case the objective test was not satisfied).

<sup>685</sup> *Inland Revenue Commissioners v Fry* [2001] STC 1715 (Ch) 6, 7; *Air Transworld Ltd* (n 683) 79. For an application of the objective test to an acceptance, see *University of Edinburgh v Onifade* 2005 SLT (Sh Ct) 63.

<sup>686</sup> In *Glencore Energy Ltd* (n 683), for example, an agreement was found by the court during the exchange of correspondence.

<sup>687</sup> *Kennedy v Lee* (1817) 3 Mer 441, 36 ER 170; *Compagnie de Commerce et Commission, SARL v Parkinson Stove Co* [1953] 2 Lloyd's Rep 487 (CA); *Port Sudan Cotton Co v Govindaswamy Chettiar & Sons* [1977] 2 Lloyd's Rep 5 (CA); *Thoresen Car Ferries Ltd* (n 677); *OTM Ltd v Hydranautics* [1981] 2 Lloyd's Rep 211 (Com Ct) 215; *Manatee Towing Co v Oceanbulk Maritime SA (The Bay Ridge)* [1999] 2 All ER (Comm) 306 (Com Ct); *Weill v Mean Fiddler Holdings* [2003] EWCA Civ 1058; *Allianz Insurance Co Egypt v Aigaion Insurance Co SA* [2008] EWCA Civ 1455, [2009] 2 All ER (Comm) 745.

<sup>688</sup> [1975] AC 154 (PC).

<sup>689</sup> [1978] 1 WLR 520 (CA) 523.

<sup>690</sup> [1979] 1 WLR 294 (HL) 297.

Considering all the above, it can be affirmed that if, at a theoretical level, consent is an internal state of mind of a specific individual, in practice, in English contract law, it is the appearance of an internal state of mind as reasonably understood by a reasonable person under the mirror image rule and forcing, if the necessity arises, the facts into concepts.

Consent and consent in contract law do not coincide. If an agreement is theoretically the meeting of the minds, in its practical application, it is the meeting of two hypothetical minds, which can be significantly distant from the inner thoughts of the parties. For example, as considered above, in *Upton*,<sup>691</sup> none of the parties thought the service should be paid. This idea was not in their minds. This case is extreme in the consequences. However, this does not change the fact that a reasonable person is not a specific person and that a reasonable understanding is not the actual thoughts and the real understanding.

Therefore, as stated above, the formation and the content of an agreement is more an exercise in communication than an inner state of mind, a legal fiction in which the party must express their will in a sufficiently certain form so that the courts can observe it under an objective test and enforce it.<sup>692</sup>

### 6.3.2 Objectivity According to Italian Contract Law

Before analysing the relationship between consent in contract law and PT and its possible use as a protection of autonomy and mental self-determination against CM, it is helpful to consider a civil law perspective, the Italian law perspective, on the interpretation of consent in contract law.

From a theoretical point of view and following a civil law tradition,<sup>693</sup> the Italian contract law maintained a solid connection to the theory of the will, not solely in the general theory of contracts but also in the rules regarding the interpretation of a contract.<sup>694</sup> However, as in English contract law, theory and practice on consent do not coincide under Italian contract law.

According to Art. 1362 of the Codice Civile (Civil Code), a contract shall be interpreted by inspecting the parties' common intention. The Italian view of the contract construction follows the Roman tradition of Papinian, who stated: 'In conventionibus contrahentium voluntatem potius quam

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<sup>691</sup> (n 647).

<sup>692</sup> Leonhard, 'Dangerous Or Benign Legal Fictions, Cognitive Biases, and Consent in Contract Law' (n 676) 405; McKendrick (n 645) 48.

<sup>693</sup> Lobban, 'Introduction' (n 60).

<sup>694</sup> Bianca, *Il contratto* (n 611) 407; Cesare Grassetto, 'Interpretazione dei Negozi Giuridici Inter Vivos (Diritto Civile)' (1962) 7 Nss DI 903; Cesare Grassetto, 'L'interpretazione dei Contratti e il Ricorso in Cassazione' (1936) 4 Il Foro Italiano 311; Giorgio Oppo, *Profili dell'Interpretazione Oggettiva del Negozio Giuridico* (Zanichelli 1943); Lina Bigliuzzi Geri, *L'interpretazione del Contratto*, vol 1362 (Giuffrè 2013); Claudio Scognamiglio, *Interpretazione del Contratto e Interessi dei Contraenti* (Cedam 1992).

verba spectari placuit'.<sup>695</sup> The Italian Codice Civile formally seems to part the construction of a contract into subjective interpretation (Articles 1362 – 1365) and objective interpretation (Articles 1366 – 1370).<sup>696</sup> A contract shall be interpreted, first of all, subjectively: not being limited by the literal interpretation (Art. 1362); considering the complexity of the parties' behaviour (Art. 1362, Comma 2); considering the clauses systemically (Art. 1363); considering the general expressions used in the contract solely as referring to the object of the contract (Art. 1364); not excluding the possible examples that were not considered in the formulation of the clauses (Art. 1365).

A contract then shall be interpreted objectively: in good faith (Art. 1366);<sup>697</sup> in the sense in which it can have effects (Art. 1367); interpreting the expressions used that might have more than one meaning according to the general practices in use in the place in which the contract was signed (Art. 1368); interpreting the expressions that might have more than one meaning most favourably to the nature and object of the contract (Art. 1369); interpreting the clauses contained in general terms and conditions in the meaning more favourable to the adherent (Art. 1370) and, finally, if doubt persists, the contract shall be interpreted in the meaning most favourable to the party carrying the obligation if the contract does not have a price, and to balance in equity the interests of the parties if a price is present (Art. 1371).

However, the abovementioned partition between subjective and objective criteria in the interpretation of a contract is not to be considered as allowing the courts to investigate the actual mind of the parties. Even if there have been identified two theories regarding the subjective interpretation, one psychological<sup>698</sup> and one objective,<sup>699</sup> according to the Italian Corte di Cassazione, the subjective interpretation of the contract has to be considered from an objective point of view, being a contract an expression of the common intention of the parties objectified in the agreement.<sup>700</sup> Bianca, with this regard, states that the contrast between the objective and subjective points of view shall be erased, recognising that the contract is a social fact and that the parties' common intention is the intention commonly understandable in a given socio-economic context.<sup>701</sup>

Therefore, the articles that refer to the subjective interpretation shall be applied objectively. Art. 1362 Codice Civile states that, in interpreting a contract and finding the parties' common intention, the court shall not be bound by the literal meaning of the words. However, the words used

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<sup>695</sup> ('In agreements, it is necessary to consider the contracting parties' intentions rather than their words'. Own translation) Papinianus Dig. 50.16.219 in Petrus Area Baudoza Cestius and others (eds), *Corpus Iuris Civilis* (Balaxerdi 1593); Bianca, *Il Contratto* (n 611) 417.

<sup>696</sup> *ibid* (n 611) 417.

<sup>697</sup> *ibid* 414. Bianca considers this Article part of the subjective interpretation. On good faith see 7.4.1.

<sup>698</sup> Giuseppe Stolfi, *Teoria del Negozio Giuridico* (CEDAM 1961).

<sup>699</sup> Emilio Betti, *Interpretazione della Legge e degli Atti Giuridici (Teoria Generale e Dogmatica)* (Giuffrè 1971).

<sup>700</sup> Cassazione Civile 29 settembre 1994 n 7937.

<sup>701</sup> Bianca, *Il contratto* (n 611) 418.



will be the first element to be considered,<sup>702</sup> and the meaning of the words is objective.<sup>703</sup> This provision expresses the Latin principle ‘in claris non fit interpretatio’.<sup>704</sup> The principle has been used in the Italian courts to state that the subjective principles of interpretation considered by the Codice Civile shall not be taken into account when the literal meaning is not subject to further interpretation.<sup>705</sup> Art. 1362 (2) states then that the parties' common intention shall be construed taking into account their behaviour, also posterior to the existence of the contract. The court can also look at the pre-contractual negotiations or previous contracts between the same parties. However, if a contrast arises between the final contract and previous contracts or previous manifestations of intention, the final contract shall prevail.<sup>706</sup> The contract, then, shall be interpreted in good faith, according to Art. 1366 Codice Civile.<sup>707</sup> A party shall not induce the other party to rely on something reasonably understandable regarding the meaning of the agreement. The perspective is objective, seen through the eyes of an average person.<sup>708</sup> It shall also be taken into account that, according to the Italian Codice Civile, Art. 2702, the signature of a document is objective evidence of the fact that the declarations contained in the document come from the party who signed the document.

Therefore, even if the Italian Civil Code takes, theoretically, into account the subjective interpretation of contracts, the subjective approach has been reduced to an objective point of view. As considered by Gentili, interpretation is linked to signs and cannot overcome them.<sup>709</sup>

Consequently, the civil law perspective of the Italian Civil Code on the interpretation of contracts, taking different roads from a common origin,<sup>710</sup> arrives in practice at the same conclusions stated above regarding the common law perspective of the English contract law: consent in contract law is a matter of objectivity.<sup>711</sup>

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<sup>702</sup> *ibid* (n 611) 426.

<sup>703</sup> Natalino Irti, *Testo e Contesto: una Lettura dell'art. 1362 Codice Civile* (CEDAM 1996).

<sup>704</sup> ('In clarity, there is no room for interpretation'. Own translation) Vito Velluzzi, 'La Chiarezza Ambigua. Interpretazione del Contratto, Significato e Giurisprudenza' (2021) 26 *Ars Interpretandi* 117.

<sup>705</sup> Cassazione Civile 11 marzo 2014 n 5595; Cassazione Civile 30 aprile 2014 n 9524; Cassazione Civile 22 marzo 2010 n 6852; Aurelio Gentili, *Senso e Consenso: Storia Teoria e Tecnica dell'Interpretazione dei Contratti*, vol 2 (Giappichelli 2015). For a different position, see Cassazione Civile 20 gennaio 1984 n 511 and Francesco Gazzoni, *Obbligazioni e Contratti* (Edizioni Scientifiche Italiane 2018).

<sup>706</sup> Cassazione Civile 18 agosto 1981 n 4935; Cassazione Civile 21 maggio 1980 n 3342; Bianca, *Il Contratto* (n 611) 428.

<sup>707</sup> See 7.4.1.

<sup>708</sup> *ibid* Bianca, *Il Contratto* (n 611) 424; Cassazione Civile 13 dicembre 1973 n 5939.

<sup>709</sup> Gentili, *Senso e Consenso* (n 705) 192.

<sup>710</sup> Lobban, 'Introduction' (n 60).

<sup>711</sup> See also Stefan Vogenauer, 'Interpretation of Contracts: Concluding Comparative Observations' in Andrew Burrows and Edwin Peel (eds), *Contract Terms* (OUP 2007) referring to France and Germany.

## 6.4 Objectivity and CM

As previously considered, PT, led by an AI, can impact and manipulate individuals' decision-making processes by relying on Big Data and interacting with the users, covertly finding routes to affect System 1, the primordial brain of individuals.<sup>712</sup> The result of the interference in the decision-making processes of individuals will be a new attitude or behaviour in the absence of awareness and understanding of the process.<sup>713</sup> The new attitude and behaviour might lead to a contract (or any document that produces legal effects). The contract might be entered into in person, as in the example of the e-cigarette,<sup>714</sup> or it might be entered into through a click on an online button, as it happens in an online contract. The verbal contract, the signature or the click will result from a long data acquisition process, profiling, interaction, and hypernudge.

From a contract law perspective, the oral expression of the agreement, the signature, or clicking on the online button are signs. Those signs will be interpreted under an objective test (not investigating the parties' actual thoughts) from the perspective of a reasonable person in the position of the addressee, considering the factual matrix reasonably available, not taking into account the parties' intentions, and under the mirror image rule.<sup>715</sup>

Therefore, when it comes to analysing the existence of an agreement that is the result of CM, a court will objectively see and consider as relevant a formal expression of consent, which will be perceived as an objective sign of consent in the eyes of the addressee, and a match under the mirror image rule. Nonetheless, that expression of consent will result from CM affecting the user's decision-making process in volition, information, and understanding. The expression of consent will be objective but ostensible.

It should be asked if any consent can be found in formally objectively consenting to an agreement without reading it, having all the information, or understanding the available information. The question is even more complex to answer in online contracting. It has already been asked if and how the rise of online contracting affected the users' volition, information, and comprehension of a contract. According to Frishmann and Selinger, an online agreement should not be legally binding.<sup>716</sup> Thompson underlined the relevance of consent in accepting online terms and conditions. According to Thompson, individuals are familiar with a sentence as: 'Before proceeding, you must read and agree to the following Terms and Conditions', followed by a statement such as: 'By checking the box, you agree to be bound by this agreement'. Nonetheless, people are unlikely to spend time reading

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<sup>712</sup> See Chapter 3.

<sup>713</sup> See 6.2.

<sup>714</sup> See 4.3.2.3.

<sup>715</sup> See 6.3.1.3 and 6.3.2.

<sup>716</sup> Frischmann and Selinger (n 189) 60.

contractual terms and less understanding them, and companies are aware of this tendency.<sup>717</sup> An example of this can be found in Amazon's AWS Service Terms, which used to contain the following clause:

42.10. Acceptable Use; Safety-Critical Systems. Your use of the Lumberyard Materials must comply with the AWS Acceptable Use Policy. The Lumberyard Materials are not intended for use with life-critical or safety-critical systems, such as use in operation of medical equipment, automated transportation systems, autonomous vehicles, aircraft or air traffic control, nuclear facilities, manned spacecraft, or military use in connection with live combat. However, this restriction will not apply in the event of the occurrence (certified by the United States Centers for Disease Control or successor body) of a widespread viral infection transmitted via bites or contact with bodily fluids that causes human corpses to reanimate and seek to consume living human flesh, blood, brain or nerve tissue and is likely to result in the fall of organized civilization.<sup>718</sup>

According to this clause, Amazon's Lumberyard Materials cannot be used with life-critical or safety-critical systems, which seems to be a typical contract term. However, the restrictions do not apply in the event of a certified zombie apocalypse.

Including such a clause in Amazon's contractual terms can be considered a joke. However, it can also be regarded as an index of the fact that individuals are unlikely to read contractual terms and that this tendency of not reading is so extended to allow Amazon to write such a clause in official terms and conditions. Amazon is not alone in writing such kind of clause. In an experiment reported by the Guardian, people gave up their firstborn without reading the terms in exchange for free Wi-Fi.<sup>719</sup>

It also has to be taken into account that even if individuals were diligent in spending time and mental effort reading the terms and conditions, it is improbable that an average person would understand the legal language or the legal consequences of the agreement in cases that are not so

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<sup>717</sup> David Thompson, 'I Agreed to What-A Call for Enforcement of Clarity in the Presentation of Privacy Policies' (2012) 35 *Hastings Comm & Ent LJ* 199. See also Friedrich Kessler, 'Contracts of Adhesion-Some Thoughts About Freedom of Contract' (1943) 43 *Columbia LR* 629; Michal Lavi, 'Manipulating, Lying, and Engineering the Future' (2023) 33 *Fordham Intellectual Property, Media & Entertainment Law Journal* 245.

<sup>718</sup> Amazon 'AWS Service Terms'

<<https://aws.amazon.com/serviceterms/?ascsubtag=%5B%5Dvg%5Bp%5D22426378%5Bt%5Dw%5Br%5Dgoogle.com%5Bd%5DD>> accessed 4 April 2022. The clause was then cancelled.

<sup>719</sup> Tom Fox-Brewster, 'Londoners give up eldest children in public Wi-Fi security horror show'

([www.theguardian.com](http://www.theguardian.com) 29 September 2014) <[www.theguardian.com/technology/2014/sep/29/londoners-wi-fi-security-herod-clause](http://www.theguardian.com/technology/2014/sep/29/londoners-wi-fi-security-herod-clause)> accessed 9 November 2023.

obvious as those of zombies or firstborns. Privacy policies and terms and conditions are usually not understandable, and they are not of a reasonable length.<sup>720</sup> It is unlikely that an average person would hire a lawyer to be conscious of the consequences of their actions in the legal field regarding an average transaction such as accessing the wifi.<sup>721</sup>

If contractual terms are not read and not understood, the absence of understanding raises an issue related to the existence of consent. However, invalidating an agreement because a user failed to understand the content violates the fundamental idea that ignorance of the law should not be an excuse for transgressing it.<sup>722</sup> Moreover, refusing to enforce contracts (apparently) chosen by the parties infantilizes them, treating them as objects unable to make their own choices in life and create their plans accordingly.<sup>723</sup> Recognising some value in failing to understand seems also to be contrary to the objective test required by the courts and to the certainty of transactions.

However, when it comes to online agreeing, it has been stated that people do not entirely understand what they agree to. People seem to focus more on visual cues than on the actual content of the information.<sup>724</sup> Thus, the consent may not be considered adequately formed.

Another element to be taken into account is that, usually, companies reserve the right to change their terms and conditions unilaterally, frequently resulting in a lack of knowledge of the changes from the users, who are ulteriorly notified regarding the already happened changes.<sup>725</sup> Moreover, many interactions in everyday life with apps or sites and corresponding legal documents would make it impossible to read and understand the consequences of accepting them thoroughly.<sup>726</sup> It has been studied that reading all the privacy policies an individual comes across in one year would require seventy-six working days.<sup>727</sup>

Therefore, according to Zuboff, individuals face a sort of withdrawal from the consent that undermines the essence of any agreement. Instead of a contract, it is raising its opposite, an *uncontract*, an agreement in which people give up their power to express their consent to gain time and services.<sup>728</sup> The uncontract is not a contractual relation but a unilateral execution that makes the relation between the parties unnecessary. It desocialises the contract, creating a sort of new certainty via automated procedures for promises, dialogue, problem-solving and dispute resolution. The

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<sup>720</sup> Ari Ezra Waldman, 'A Statistical Analysis of Privacy Policy Design' (2017) 93 Notre Dame LR Online 159.

<sup>721</sup> Thompson (n 717) 203.

<sup>722</sup> *ibid* 205.

<sup>723</sup> Oman (n 611) 222.

<sup>724</sup> Thompson (n 717) 211.

<sup>725</sup> *ibid*.

<sup>726</sup> *ibid* 212.

<sup>727</sup> Alexis C Madrigal, 'Reading the Privacy Policies You Encounter in a Year Would Take 76 Work Days' (2012) 1 The Atlantic <[www.theatlantic.com/technology/archive/2012/03/reading-the-privacy-policies-you-encounter-in-a-year-would-take-76-work-days/253851/](http://www.theatlantic.com/technology/archive/2012/03/reading-the-privacy-policies-you-encounter-in-a-year-would-take-76-work-days/253851/)> accessed 8 November 2023.

<sup>728</sup> Zuboff (n 26).

tendency to erase human intervention from the contract is the same tendency noticeable in smart contracts.<sup>729</sup>

If the tendency to the uncontract is mixed with the manipulative computational abilities of an AI-driven PT, the result is that any consent objectively given in a physical and online contract due to CM has a low chance of being based on awareness and understanding. Not only will the contract be the consequence of the exploitation of cognitive biases, in a continuous hypernudge towards the pre-determined choice, but any information on the collection, analysis and use of personal data received through a privacy policy or any information regarding the terms and conditions will not be read or understood. Nonetheless, according to the objective test, consent will be considered present.

Considering all the above, consent in contract law is insufficient protection against CM. Therefore, in order to understand if consent and contract law can be a protection against CM, preserving autonomy and mental self-determination, it should be considered not solely the final agreement or the click on the online button but also how the user was brought to that agreement and click and if the persuasive process can fall under existing doctrines and legislation related to possible lack of consent or vitiating factors.

In analysing these doctrines, it should be noted that the interaction between an AI-driven PT and a human is not a human-human interaction. A PT has human abilities and can use persuasion, coercion, deception, and manipulation as a human could. Therefore, existing doctrines related to vitiated consent might be able to deal with some dark patterns a PT may use. However, PT also has computational capabilities. Therefore, besides acting like a human, a PT can also operate in a blurred area of persuasion, similar to that in which a human being would operate but having computational capabilities to affect the decision-making processes of individuals and manipulate them. Consequently, existing doctrines and legislation may not be adaptable to PT's computational power, specifically to some forms of CM, as will be apparent in the next chapter.

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<sup>729</sup> Merit Kolvart, Margus Poola and Addi Rull, 'Smart Contracts' in Tanel Kerikmäe, Addi Rull (eds), *The Future of Law and Etechnologies* (Springer 2016).

## Chapter 7 CM and Vitiating Factors

As considered in the previous chapter, consent in contract law is an expression of the freedom of contract and might be the foundation of possible protection of the rights to autonomy and mental self-determination in the field of compulsion.<sup>730</sup> However, given the limits of the objective test and the possibility of the uncontract (an agreement in which people give up their power to express their will), consent alone, as currently identifiable in contract law, is insufficient protection against CM.<sup>731</sup>

This chapter, therefore, will consider if the doctrines regarding defective consent could be a possible protection against CM. As stated in this analysis, the general concept of freedom of contract has a counterparty in the freedom from contract, the freedom not to be bound to an unwanted contract.<sup>732</sup> Freedom of contract and freedom from contract both preserve autonomy. Consent might be vitiated, and contract law, consequently, considers not solely how an agreement can be (objectively) reached but also a possible deviation from the freedom to decide.<sup>733</sup> Legislation in the consumer protection field also plays a significant role in protecting the parties' freedom and autonomy.<sup>734</sup>

Contract law, conceiving remedies to an affected and vitiated consent in contracting, recognises that individuals may not have complete control of their mental state.<sup>735</sup> As considered by Mik, a sterile and isolated transacting environment is not conceivable.<sup>736</sup> The decisions of individuals are influenced by external factors and, for what is relevant in this analysis, by other individuals who will attempt to nudge them and shape their decisions via PT/CM. According to Mik, contract law deals with unacceptable external influences due to the degree to which they affect decisions: 'We may not have full autonomy in the neurological or psychological sense, but whatever autonomy we have should not be further limited by external factors without our awareness'.<sup>737</sup>

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<sup>730</sup> See 6.2.

<sup>731</sup> See 6.4.

<sup>732</sup> See 6.3.1.3.

<sup>733</sup> Ebers (n 412) 45 referring to John Cartwright and Martin Schmidt-Kessel, 'Defects in Consent: Mistake, Fraud, Threats, Unfair Exploitation' in Gerhard Dannemann and Stefan Vogenauer (eds), *The Common European Sales Law in Context: Interactions with English and German Law* (OUP 2013).

<sup>734</sup> Ebers (n 412) 45. Ebers refers to Atiyah, *The Rise and Fall of Freedom of Contract* (n 648). The single doctrines on defective consent in the English and Italian systems will be analysed in this Chapter. For the legislation on consumers, see 4.3.2 and 7.2.

<sup>735</sup> Regarding shaping decisions, see Paul Slovic, 'The Construction of Preference' (1995) 50 *American Psychologist* 364; Amos Tversky and Daniel Kahneman, 'The Framing of Decisions and the Psychology of Choice' in George Wright (ed) *Behavioral Decision Making* (Springer 1985); John W Payne, James R Bettman and Eric J Johnson, 'Behavioral Decision Research: A Constructive Processing Perspective' (1992) 43 *Annual Review of Psychology* 87.

<sup>736</sup> Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450) 6. Mik refers not just to consumers regarding this concept but generally to contracts.

<sup>737</sup> *ibid* 6.

Consequently, according to Baldwin, ‘The real issue, on this view, is not whether the decision is shaped but whether the pre-nudge decision-making context is seen as manageable and acceptable’.<sup>738</sup> The issue, therefore, resides in understanding which kinds of influence are acceptable and which are not. What has to be assessed is the limit between an individual’s responsibility in entering a contract and an illegitimate interference of the other party and the reason for the limit.

As previously considered in this analysis, when an individual maintains their ability to recognise and reduce external influences, it can be considered that their mental self-determination is preserved.<sup>739</sup> The issue, therefore, is to identify the influences that an individual cannot recognise or manage, which are or should be considered by a legal system as unacceptable, affecting an individual’s ability to self-determine their thoughts to an intolerable degree.

It shall be pointed out that even if individuals maintain mental self-determination, they cannot be assumed to make a rational or the best choice.<sup>740</sup> However, even if not a rational or the best choice, a self-determined decision will be at least a decision that individuals would have ‘taken’, quoting the formulation of the UCPD in Art. 6.<sup>741</sup>

CM has already been considered unacceptable, and the individual’s ability to self-determine their thoughts has already been considered impaired to an intolerable degree.<sup>742</sup> Consequently, what will be analysed in this chapter are the influences already considered by a legal system as unacceptable and the rationale behind the existing doctrines that deal with those influences. The analysis will consider if CM is one of the unacceptable influences already considered by contract law.

Following the chosen methodology, this analysis will consider CM through English and Italian contract law lenses.<sup>743</sup> From the following analysis, it will be apparent that existing doctrines on vitiating factors in the two systems protect how thoughts are formed, protect one party from interference in forming consent perpetrated by the other, and attempt to preserve one party from taking advantage of the other. The following analysis will underline that existing doctrines in the two

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<sup>738</sup> Robert Baldwin, ‘From Regulation to Behaviour Change: Giving Nudge the Third Degree’ (2014) 77 MLR 831, 849.

<sup>739</sup> See Chapters 3, 4 and 5.

<sup>740</sup> Mik, ‘The Erosion of Autonomy in Online Consumer Transactions’ (n 450) 6. Mik refers to Dan Ariely, *Predictably Irrational: The Hidden Forces That Shape Our Decisions* (Rev edn, HarperCollins 2009).

<sup>741</sup> Council Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council (‘Unfair Commercial Practices Directive’) [2005] OJ L149/22.

<sup>742</sup> See Chapter 4.

<sup>743</sup> See 1.2. Being aware that the use of CM to induce individuals to enter into a contract might involve third parties, this analysis will focus on CM and vitiating factors in a contract between two parties. This analysis focuses on CM, its impact on consent and decision-making processes, and the protection of an individual against it. A two-party scenario will allow this research to state if existing doctrines can protect individuals against CM or if different solutions should be contemplated. Scenarios that involve third parties, their possible liability or their rights, are not the focus of this analysis and will be left to future research.

systems chosen as case studies have a common origin in civil law and the theory of the will and that existing doctrines can be helpful in some cases of CM.

However, as discussed in this chapter, existing doctrines in both systems fail to protect individuals from the second kind of CM, CM2, which can covertly affect System 1 without deception. Consequently, a different protection is needed in contract law against CM2. This protection will be considered in Chapter 8.

## **7.1 Vitiating Factors in English Contract Law**

The following analysis will consider existing vitiating factors in English contract law and their underlying principles. The analysis will focus on elements of existing doctrines relevant to CM to scrutinise whether the doctrines can cover all aspects of CM, focusing on CM2. The same analysis will be made regarding Italian doctrines, starting from sub-section 7.4.

### **7.1.1 Misrepresentation**

As considered in Chapters 2 and 3, a PT can use persuasion, deception, coercion and manipulation, which are different. This analysis focuses on manipulation. Deception, one of the possible ways to manipulate an individual considered in Chapter 3 and identified as M1, relies on misleading information.<sup>744</sup> English contract law developed a doctrine related to misleading information, the doctrine of misrepresentation.

*Avon Insurance v Swire*<sup>745</sup> states that this doctrine should not be too easily found where it is possible to exercise judgment. This sense of individual responsibility accompanies the evolution of this doctrine, as it happens with other doctrines that will be analysed further. It is helpful to briefly analyse the origin of the doctrine in order to state what it protects, what its boundaries are and if it can be applied to CM.

#### *7.1.1.1 Origin and Evolution*

The doctrine of Misrepresentation evolved in time,<sup>746</sup> becoming ‘a somewhat complex amalgam of rules’.<sup>747</sup> Different layers overlap concerning misrepresentation, such as the common law, equity, and legislation. The amalgam of rules can also be complicated by the fact that the doctrine of

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<sup>744</sup> See 3.1.1.

<sup>745</sup> [2000] 1 All ER (Comm) 573, 200.

<sup>746</sup> Patrick S Atiyah, *Essays on Contract* (Clarendon Press 1986); Patrick S Atiyah, 'Misrepresentation, Warranty and Estoppel' (n 610); Patrick S Atiyah and Guenter H Treitel, 'Misrepresentation Act 1967' (1967) 30 MLR 369; George Spencer Bower, Alex Kincomber Tuner and KR Handley, *Actionable Misrepresentation* (Butterworths 2000); Rick Bigwood, 'Pre-contractual Misrepresentation and the Limits of the Principle in with v. O'flanagan' (2005) 64 CLJ 94; John Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (6th edn, Sweet & Maxwell 2012).

<sup>747</sup> Beale (n 610) 9-001.



misrepresentation, as stated by Atiyah, ‘occupies a hazy and undefined area generally thought to lie along the boundaries of tort and contract’.<sup>748</sup> Misrepresentation could also overlap between private and criminal law. Fraudulent misrepresentation can be an offence under the Fraud Act 2006.<sup>749</sup> In order to evaluate if the doctrine of misrepresentation could protect individuals from CM, it is helpful to consider the terminology used over time concerning misrepresentation and the origin and underlying theory behind this doctrine, which has been vastly analysed in the literature.<sup>750</sup>

The doctrine of misrepresentation developed around the concept of fraud and the necessity of fraudulent intent.<sup>751</sup> The meaning of the word fraud in the legal framework is very narrow, following the decision of the House of Lords in *Derry v Peek*.<sup>752</sup> Fraud consists of a false representation made knowingly, without belief in its truth, or recklessly; carelessness may be evidence of fraud.<sup>753</sup> Using the words of Atiyah, a representation ‘is merely a statement of fact’.<sup>754</sup> According to Bower, it is a communication between two or more persons which relates to a fact, past or present.<sup>755</sup> A representation comes before the existence of the contract, inducing a party to enter into a contract.<sup>756</sup>

During its evolution, the doctrine focused on different states of mind from a fraudulent intent.<sup>757</sup> In the nineteenth century, with the rise of investments, the need to conceive the relevance of negligence in misrepresentation arose.<sup>758</sup> The House of Lords, in *Nocton v Lord Ashburton*<sup>759</sup> and *Hedley Byrne v Heller*,<sup>760</sup> recognised that negligent misrepresentation could be actionable in some cases. The Misrepresentation Act 1967 refers to representations made without reasonable ground<sup>761</sup> and created a ‘fiction of fraud’,<sup>762</sup> as stated in *Royscot Trust Ltd v Rogerson*,<sup>763</sup> in the case of non-fraudulent misrepresentation. Three different kinds of misrepresentation can now be considered (fraudulent, negligent and innocent). It shall also be noted that, after the Misrepresentation Act 1967,

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<sup>748</sup> Atiyah, 'Misrepresentation, Warranty and Estoppel' (n 610) 347.

<sup>749</sup> Beale (n 610) 9-003.

<sup>750</sup> AWB Simpson, 'The Promise and Its Validity' in *A History of the Common Law of Contract: The Rise of the Action of Assumpsit* (OUP 1987); John Cartwright, *Unequal Bargaining: a Study of Vitiating Factors in the Formation of Contracts* (Clarendon Press 1991); Michael Lobban, 'Misrepresentation' in William Cornish and others (eds), *The Oxford History of the Laws of England*, vol 12 (OUP 2010); Mindy Chen-Wishart, 'The Nature of Vitiating Factors in Contract Law' in Gregory Klass, George Letsas, and Prince Saprai (eds), *Philosophical Foundations of Contract Law* (OUP 2015).

<sup>751</sup> Lobban, 'Misrepresentation' (n 750) 413, 414.

<sup>752</sup> [1889] 12 App Cas 337 (HL).

<sup>753</sup> See, on the test of dishonesty, *Ivey v Genting Casinos UK Ltd (t/a Crockfords Club)* [2017] UKSC 67, [2018] AC 391.

<sup>754</sup> Atiyah, 'Misrepresentation, Warranty and Estoppel' (n 746) 354.

<sup>755</sup> Bower, Tuner and Handley (n 474) 2.02.

<sup>756</sup> Beatson, Burrows and Cartwright (n 633) 317; McKendrick (n 645) 245; Chen-Wishart, *Contract Law* (n 637) 212.

<sup>757</sup> Lobban, 'Misrepresentation' (n 750) 413, 414.

<sup>758</sup> *ibid* (n 750) 418.

<sup>759</sup> [1914] AC 932 (HL).

<sup>760</sup> [1964] AC 465 (HL).

<sup>761</sup> Beale (n 610) 9-005.

<sup>762</sup> Atiyah and Treitel, 'Misrepresentation Act 1967' (n 746) 373; Peel (n 642) 278.

<sup>763</sup> [1991] 2 QB 297 (CA) 306.

it is no longer relevant if the misrepresentation was, or not, incorporated and reflected in the terms and conditions of the contract.<sup>764</sup>

What appears from the evolution of the terms used in the misrepresentation field, both in equity and common law, is that the nature of the doctrine relies on false statements. As stated in *Peek v Gurney*, concerning misrepresentation, equity ‘requires the truth, the whole truth and nothing but the truth to be told (...) It is the *suppressio veri* or the *suggestio falsi* which is the foundation of the right to relief in equity, and this exists whether it were fraudulently or mistakenly done’.<sup>765</sup>

A starting point of what was called a new doctrine by Pollock in 1889, defined in *Derry v Peek*<sup>766</sup> and the following decisions, can be found in *Pasley v Freeman*.<sup>767</sup> False statements are central in the doctrine of misrepresentation. As stated in *Polhill v Walter*, ‘It is of the greatest importance in all transactions, that the truth should be strictly adhered to’.<sup>768</sup>

Therefore, protecting the truth from false statements was one of the explicit aims of the doctrine in the 19<sup>th</sup> century. Given this premise, the common law focused on the state of mind of the representor while giving false information, expanding its focus from the protection against a fraudulent intent to the protection against legal fraud, and including between 1800 and 1900, first recklessness and then negligence into the spectrum of this doctrine.<sup>769</sup> It shall be noticed that the Roman law idea that *lata culpa* might be equivalent to *dolus* appears to be used in the evolution of case law as a justification that not just fraud and deceit but also recklessness in a false statement could be relevant for the law.<sup>770</sup> The object, however, remained false statements.

Like other doctrines related to vitiating factors,<sup>771</sup> misrepresentation evolved by including concepts borrowed from civil law and re-framed into common law,<sup>772</sup> starting with the concept of *caveat emptor*.<sup>773</sup> In the eighteenth century, there was no duty to bargain in good faith,<sup>774</sup> and the purchaser was expected to use their experience to decide which kind of statements they could rely on.<sup>775</sup> Individuals were considered free and autonomous, and the will theory became central in contract law, substituting the precedent idea that considered contracts as performance.<sup>776</sup>

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<sup>764</sup> *Pennsylvania Shipping Co v Compagnie Nationale de Navigation* [1936] 2 All ER 1167 (KB) 1171; *Leaf v International Galleries* [1950] 2 KB 86 (CA); Beale (n 610) 9-004.

<sup>765</sup> [1871-72] LR 13 Eq 79 (Ch) 113.

<sup>766</sup> (n 752).

<sup>767</sup> (1789) 100 ER 450 (KB); Frederick Pollock, 'Derry v. Peek in the House of Lords' (1889) 5 LQ Rev 410.

<sup>768</sup> (1832) 3 B & Ad 114, 110 ER 43 [124].

<sup>769</sup> Lobban, 'Introduction' (n 60) 410.

<sup>770</sup> Pollock, 'Derry v. Peek in the House of Lords' (n 767) 414.

<sup>771</sup> For these doctrines, see the following sections.

<sup>772</sup> Gordley (n 60).

<sup>773</sup> Lobban, 'Misrepresentation' (n 750) 409.

<sup>774</sup> See the comments of Mansfield CJ in *Vernon v Keyes* (1812) 4 Taunt 488, 128 ER 419, 493. See also 7.4.1 on good faith.

<sup>775</sup> See Tindal CJ's comments in *Shrewsbury v Blount* (1841) 2 Man & G 475, 133 ER 836, 504.

<sup>776</sup> Lobban, 'Introduction' (n 60) 297; Atiyah, 'The Rise and Fall of Freedom of Contract' (n 648).

The limit to what was expected in a transaction was to be found in a duty not to defraud. Therefore, starting from the eighteenth century, the courts developed principles on which information was to be shared during bargaining, also relying on the theory of the will.<sup>777</sup> In the nineteenth century, the courts translated the duty to disclose latent defects into an implied warranty.<sup>778</sup> While eighteenth-century courts required buyers to protect themselves from exaggerated statements, it was accepted that a representee only had a duty to check for himself if there was something to raise their suspicions.<sup>779</sup> However, as stated in *Horsfall v Thomas*,<sup>780</sup> if the defects were apparent, there was no duty to point at them. The principle of caveat emptor was in force, the theory of the will was present, and no remedy had to be given when an individual could realise, by inspecting the goods, that they were defective. The rules evolved, always focusing on representations and fraud and also stating that had to be pointed out if some circumstance changed:

[i]f after the error has been discovered, the party who has innocently made the incorrect representation suffers the other party to continue in error and act on the belief that no mistake has been made, this, from the time of the discovery, becomes, in the contemplation of this Court, a fraudulent misrepresentation, even though it was not so originally.<sup>781</sup>

It is worth noticing that in the language of the eighteenth-century cases, there is a reference to the concept of mistake, for example, in the mentioned words of Lord Cranworth. A mistake is an element in the civil law concept of *dolus*, developed in the general theory of the will to protect individuals from vitiating factors of consent.<sup>782</sup> The relation between an error and the doctrine of misrepresentation, even if cited in 1800 English cases, is not generally present in the modern doctrine of misrepresentation, which does not refer to mistakes but, as already underlined and discussed further, focuses on false statements that induce a contract. However, references to a misrepresentation that induces a mistake can also be found, for example, in the work of Birks, who refers to a ‘mistake induced by misrepresentation’.<sup>783</sup>

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<sup>777</sup> Philip A Hamburger, 'The Development of the Nineteenth-Century Consensus Theory of Contract' (1989) 7 *Law and History Review* 241, 241.

<sup>778</sup> Lobban, 'Introduction' (n 60) 409.

<sup>779</sup> *ibid* (n 60) 410.

<sup>780</sup> (1862) 1 *Hurl & C* 90, 158 ER 813.

<sup>781</sup> *Reynell v Sprye* (1851) 1 *De G M & G* 656, 42 ER 730, 709 (Lord Cranworth).

<sup>782</sup> Filippo Palumbo, *L'azione di Dolo: Diritto Romano e Vigente* (Morano 1935); Alberto Trabucchi, *Il Dolo nella Teoria dei Vizi del Volere* (Milani 1937); Paolo Gallo, 'I vizi del Consenso' in Enrico Gabrielli (ed), *I contratti in Generale*, vol I (Utet 2006). For *dolo*, see 7.4.5.

<sup>783</sup> Peter Birks, *Unjust Enrichment* (OUP 2005) 114.

In the nineteenth century, the courts borrowed ideas from civil law, focused at the time on the theory of the will and consent, and then attempted to conceptualise them in the different frameworks of the common law, more focused on remedies than on conceptualisation.<sup>784</sup> In any case, the theory of the will remained in the language used by the courts. For example, in *Zamet v Hyman*, Lord Evershed MR stated that a document should be executed ‘not merely understanding its effect but as a result of full, free and informed thought about it’.<sup>785</sup> In *Royal Bank of Scotland Plc v Etridge (No. 2)*,<sup>786</sup> which dealt with misrepresentation and undue influence, Lord Nicholls of Birkenhead stated that the law ‘will investigate the manner in which the intention to enter into the transaction was secured’.<sup>787</sup>

Therefore, the doctrine of misrepresentation was developed with a focus on fraud and deception as vitiating factors of consent and has, from its origin, two opposite pillars. On one side is the concept of caveat emptor, where the buyers are asked to look after themselves, exercise their autonomy and freedom of contract and express their free will via consent. On the other side is the concept of fraud, the use of trickery to deceive the buyer, also with false information, affecting their consent.<sup>788</sup> The courts focused their attention on false information in the evolution of case law, making a false statement central to the doctrine of misrepresentation and losing a more general concept of deception in English contract law. In the evolution of the doctrine, the courts lost attention to the theory of the will and shifted to a concept of fairness,<sup>789</sup> expanding their remedies from fraudulent intent to recklessness and then to negligence and innocence but always concentrating on false statements.

Therefore, misrepresentation finds its roots in vitiated consent,<sup>790</sup> also considering that fraud is a vitiating factor of consent in civil and Roman law,<sup>791</sup> the framework in which the doctrine evolved.<sup>792</sup> However, the doctrine of misrepresentation today focuses more on false information and

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<sup>784</sup> For the impact of civil law concepts on common law in the 1700s and 1800s, Lobban, 'Introduction' (n 60); Hamburger (n 777); AW Brian Simpson, 'The Horwitz Thesis and the History Of Contracts' (1979) 46 *The University of Chicago LR* 533.

<sup>785</sup> [1961] 1 WLR 1442 (CA) 1444 (Lord Evershed MR).

<sup>786</sup> [2001] UKHL 44, [2002] 2 AC 773.

<sup>787</sup> *ibid* 7.

<sup>788</sup> Chen-Wishart, 'The Nature of Vitiating Factors in Contract Law' (n 750) 296.

<sup>789</sup> Andrew Burrows, *Understanding the Law of Obligations: Essays on Contract, Tort and Restitution* (1 edn, Hart Publishing 2000) 4.

<sup>790</sup> Séverine Saintier, 'Defects of Consent in English Law: Protecting the Bargain?' in Larry DiMatteo and Martin Hogg (eds), *Comparative Contract Law: British and American Perspectives* (OUP 2015); Gordley (n 60); Ibbetson (n 628).

<sup>791</sup> Reinhard Zimmermann, *The Law of Obligations: Roman Foundations of the Civilian Tradition* (Clarendon 1996); Barbara Biscotti, 'Debtor's Fraud in Roman law. An Opportunity for some Brief Remarks on the Concept of Fraud' (2011) 17 *Fundamina: A Journal of Legal History* 1.

<sup>792</sup> Lobban, 'Introduction' (n 60).

fairness and less on a widespread impact on consent as it happens in the civil law tradition, for example, in the Italian Codice Civile Art. 1439.<sup>793</sup>

### 7.1.1.2 *Legislation, consumers and Misrepresentation*

Notwithstanding the overlapping amalgam of common law, equity and legislation, the basic rules that originated in time to identify the existence of misrepresentation remained unaltered.<sup>794</sup> Those basic rules will be considered in section 7.1.1.3.

In considering what constitutes misrepresentation, it shall be underlined that the Misrepresentation Act 1967 does not define misrepresentation. It shall also be noted that in the field of consumer protection, the UK implemented the UCPD<sup>795</sup> in the Consumer Protection from Unfair Trading Regulations 2008 (CPRs).<sup>796</sup> The UCPD considers some form of misrepresentation and is ‘without prejudice to contract law and, in particular, to the rules of validity, formation or effect of a contract’.<sup>797</sup> Therefore, the doctrine of misrepresentation and the legislation in the consumer field might overlap.<sup>798</sup> However, not all unfair practices considered by the UCPD (and therefore by the CPRs) will amount to misrepresentation.<sup>799</sup> Regulation 5 of the CPRs, in paragraph 2, considers misleading actions such as false information or an overall deceptive representation of the circumstances. Regulation 6 of the CPRs considers misleading omissions of material information. Finally, Regulation 7 of the CPRs considers aggressive commercial practices, including harassment, coercion, or undue influence.

Therefore, in a transaction with a consumer, misrepresentation is addressed in the broader context of general unfairness and also considers overlapping doctrines, such as duress or undue influence. Thus, this section will analyse the doctrine of misrepresentation. The following sections will examine the concepts of duress (7.1.4) and undue influence (7.1.4.1). The unfair practices under the CPRs (UCPD) concerning PT have been considered in Chapter 4 and will be recalled further in Section 7.2.

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<sup>793</sup> For a discussion regarding the Italian perspective on defective consent, see further at 7.4.

<sup>794</sup> Atiyah and Treitel, ‘Misrepresentation Act 1967’ (n 746) 369.

<sup>795</sup> Unfair Commercial Practices Directive.

<sup>796</sup> Consumer Protection from Unfair Trading Regulations 2008, then amended by the Consumer Protection (Amendment) Regulations 2014.

<sup>797</sup> Art.3(2). Consider also that the UCPD was modified as considered above by Directive (EU) 2019/2161 and the Guidance on UCPD. However, the modification does not apply to the UK, given Brexit. See also Ebers (n 412) 27.

<sup>798</sup> Regarding the impact of the UCPD on the common law, see Law Commission, *A Private Right of Redress for Unfair Commercial Practices. Preliminary Advice to the Department for business, Enterprise And Regulatory Reform on the Issues Raised* (Law Com Nov, 2008).

<sup>799</sup> Beale (n 610) 9-002.

### 7.1.1.3 *The elements of misrepresentation*

What constitutes misrepresentation will now be identified to understand its nature and if this doctrine can protect individuals against CM.

The first requisite of misrepresentation is the existence of a false statement.<sup>800</sup> The standard of truth or falsity is settled in *Avon Insurance*,<sup>801</sup> which refers to the Marine Insurance Act 1906 s.20(4).<sup>802</sup> A false statement is identified by considering what can reasonably be believed to be true. A misrepresentation should be unambiguously false.<sup>803</sup>

The representation, then, should be a statement of facts. A statement, however, can be so vague as not to be identifiable with a promise or a statement of fact, resulting in puffery.<sup>804</sup> Puffery, however, can be considered a representation if the recipient is expected to take it seriously.<sup>805</sup> An opinion or a belief statement cannot generally be considered relevant for the doctrine of misrepresentation.<sup>806</sup> The perspective from which a fact should be considered true or untrue is objective.<sup>807</sup>

False statements of fact can be made by words or by conduct.<sup>808</sup> A nod, wink, or shake of the head and an omission could be a statement<sup>809</sup> as could be an implied representation<sup>810</sup> under the rule of objectivity.<sup>811</sup> Mere silence, instead, does not generally constitute misrepresentation, as there is, in

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<sup>800</sup> *ibid* (n 610) 9-006.

<sup>801</sup> (n 745).

<sup>802</sup> *ibid*, 16 (Rix J). See also Beale (n 610) 9-006.

<sup>803</sup> *Smith v Chadwick* (1884) 9 App Cas 187 (HL); *Bonham-Carter v SITU Ventures Ltd* [2012] EWHC 3589 (Ch), [2012] BCC 717 [119]; *Leeds City Council v Barclays Bank Plc* [2021] EWHC 363 (Comm), [2021] 2 WLR 1180 [69].

<sup>804</sup> *Dimmock v Hallett* (1866) LR 2 Ch App 21 (CA); *West Yorkshire MCC v MFI Furniture Centres Ltd* [1983] 1 WLR 1175 (QB); *Chartered Trust v Davies* [1997] 2 EGLR 83 (CA) 86; Beale (n 610) 9-009; McKendrick *Contract law* (n 645) 248.

<sup>805</sup> *Shaftsbury House (Developments) Ltd v Lee* [2010] EWHC 1484 (Ch) [35].

<sup>806</sup> *Bisset v Wilkinson* [1927] AC 177 (PC New Zealand); *Hummingbird Motors Ltd v Hobbs* [1986] RTR 276 (CA); Beatson, Burrows and Cartwright (n 633) 318.

<sup>807</sup> *IFE Fund SA v Goldman Sachs International* [2006] EWHC 2887 (Comm), [2007] 1 Lloyd's Rep 264 [50]; *Springwell Navigation Corp v JP Morgan Chase Bank* [2010] EWCA Civ 1221, [2010] 2 CLC 705 [120]; *Cassa di Risparmio della Repubblica di San Marino SpA v Barclays Bank Ltd* [2011] EWHC 484 (Comm), [2011] 1 CLC 701.

<sup>808</sup> *TMT Asia Ltd v Marine Trade SA* [2011] EWHC 1327 (Comm), [2011] 1 CLC 976; *Leeds City Council v Barclays Bank Plc* (n 803) 102, 131; *Walters v Morgan* (1861) 3 De GF & J 718, 45 ER 1056.

<sup>809</sup> *Walters* (n 808) 723.

<sup>810</sup> *Brown v Raphael* [1958] Ch 636 (CA). See also *Spice Girls Ltd v Aprilia World Service BV* [2002] EWCA Civ 15, [2002] EMLR 27.

<sup>811</sup> *Geest Plc v Fyffes Plc* [1999] 1 All ER (Comm) 672 (QB) 683; *In Property Alliance Group Ltd v Royal Bank of Scotland Plc* [2018] EWCA Civ 355, [2018] 1 WLR 3529; *Raiffeisen Zentralbank Osterreich AG v The Royal Bank of Scotland Plc* [2010] EWHC 1392 (Comm), [2011] 1 Lloyd's Rep 123, [84]–[85]; *Cassa di Risparmio della Repubblica di San Marino SpA* (n 807) 215; *Cavendish Corporate Finance LLP v KIMS Property Co Ltd* [2014] EWHC 1282 (Ch) [113]; *Deutsche Bank AG v Unitech Global Ltd* [2013] EWHC 471 (Comm) [27]; Beale (n 610) 9-018.

general, no duty to disclose material facts in English contract law.<sup>812</sup> A complete omission of information will generally not be considered misrepresentation.<sup>813</sup>

Regarding the omission of information, it is worth noting that representations that only represent one part of reality, half-truths, could be considered misrepresented.<sup>814</sup> A party may say something true, omitting essential qualifications relevant for the representee to weigh the statement correctly. For example, in *Nottingham Patent Brick and Tile Co v Butler*,<sup>815</sup> the vendor's solicitor stated that he did not know of any restrictive covenants affecting the land under negotiation but failed to add that this was because he did not check. Therefore, a partial truth can be considered a misrepresentation according to the context in which it is made if the facts omitted render what was stated false or misleading.<sup>816</sup> However, in this case, given the absence of a general duty to disclose information, the line between a misrepresentation and a lawful commercial practice can be thin.

According to the above, the first element of misrepresentation is an unambiguously false statement that might happen in different forms and will be considered existent under an objective test.

The second requisite of misrepresentation is that the representation must be addressed to the party misled via direct communication<sup>817</sup> or a third party, such as an agent<sup>818</sup> or a party that shares the joint design to mislead.<sup>819</sup> The representation should be directed to the representee or a class the representee can claim to be part of.<sup>820</sup>

Finally, the misrepresentation must involve an inducement to enter into a specifically identified contract.<sup>821</sup> The test is objective. If the misrepresentation would have induced a reasonable

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<sup>812</sup> See eg *Percival v Wright* [1902] 2 Ch 421 (CH), in which the company director was held to be under no duty to disclose, or *Keates v The Earl of Cadogan* [1851] 10 CB 591, 138 ER 234; S. M. Waddams, 'Precontractual Duties of Disclosure' (1991) 19 Canadian Business Law Journal 349; Beatson, Burrows and Cartwright (n 633) 317. For examples of contracts with a duty to disclose, see Beale (n 610) 9-21. See also on the duty to disclose McKendrick (n 645) 236; Beatson, Burrows and Cartwright (n 633) 362.

<sup>813</sup> *Banque Keyser Ullman SA v Skandia (UK) Insurance Co Ltd* [1990] 1 QB 665 (CA) 787–789; Beale (n 610) 9-024.

<sup>814</sup> Beale (n 610) 9-024; Beatson, Burrows and Cartwright (n 633) 318.

<sup>815</sup> 16 QBD 778 (CA).

<sup>816</sup> *Jewson & Sons Ltd v Arcos Ltd* (1933) 47 Ll L Rep 93 (CA); *R v Bishirgian* [1936] 1 All ER 586 (CA); *Oakes v Turquand* (1867) LR 2 HL 325 (HL); *Barwick v English Joint Stock Bank* (1867) LR 2 Ex 259 (Ex CR); *Arkwright v Newbold* (1881) 17 Ch D 301 (CA) 318; *R v Kylsant* [1932] 1 KB 442 (CA); Atiyah and Treitel, 'Misrepresentation act 1967' (n 746) 370.

<sup>817</sup> *Hasan v Willson* [1977] 1 Lloyd's Rep 431 (QB).

<sup>818</sup> *Garnac Grain Co Inc v HMF Faure & Fairclough Ltd* [1966] 1 QB 650 (CA).

<sup>819</sup> *Avonwick Holdings Ltd v Azitio Holdings Ltd* [2020] EWHC 1844 (Comm) [386], citing Andrew Tettenborn (ed) *Clerk & Lindsell on Torts* (23rd edn, Sweet & Maxwell 2020) 17-10; Beale (n 610) 9-030; McKendrick (n 645); Chen-Wishart, *Contract law* (n 637) 221; Beatson, Burrows and Cartwright (n 633) 322.

<sup>820</sup> Beale (n 610) 9-037.

<sup>821</sup> *ibid* 9-041; Chen-Wishart, *Contract law* (n 637) 222; Beatson, Burrows and Cartwright (n 633) 322.

person to enter the contract, it induced the representee to enter it.<sup>822</sup> The misrepresentation has not to be the sole inducement, nor has it to be decisive.<sup>823</sup>

The doctrine of misrepresentation would not operate if the claimant knew that the representation was untrue and if the claimant did not allow the representation to affect his judgment.<sup>824</sup> Moreover, the doctrine of misrepresentation will not operate if the claimant is unaware of the existence of the representation.<sup>825</sup> As stated in *Leeds City Council v Barclays Bank Plc*, ‘for a misrepresentation to be actionable, the representee must be aware of it—he must understand it in the sense in which he later complains of it; it must be actively present to his mind’.<sup>826</sup>

Therefore, according to the mentioned decision, understanding/awareness of representation is a constituent part of misrepresentation, being the element able to mark a distinction and a ‘boundary between a claim for misrepresentation (generally actionable) and non-disclosure (actionable only in situations of utmost good faith or where specifically contracted for)’.<sup>827</sup>

#### 7.1.1.4 Misrepresentation and CM

The first kind of manipulation, M1, which relies on false information, can fall under this doctrine. A second-generation dark pattern can feed a specific individual with false statements addressed to them to make them enter into a specific contract. For example, the Social Proof dark pattern can use false notices about other individuals’ actions or false statements from others.<sup>828</sup> Stating falsely, for example, that a friend of an individual bought a product to induce the individual affected by the social proof bias to do the same can be considered a misrepresentation. The Sneaking dark pattern can be another possibility. As previously considered, this dark pattern consists of falsely stating that by clicking on the ‘add to basket’ button, only the selected items will be added to the basket (while different items the user did not click on will be added). Also, the Urgency dark pattern can be based on a false statement of limited quantities or options, as for the Countdown timer. In each of these cases, a piece of false information in a statement addressed directly to a specific individual and mixed with the appropriate cognitive bias of the target can induce a specific contract and result in misrepresentation.

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<sup>822</sup> *Museprime Properties Ltd v Adhill Properties Ltd* [1991] 61 P & C R 111 (Ch) 124 (Scott J); *County NatWest v Barton* [2002] 4 All ER 494 (CA).

<sup>823</sup> *Edgington v Fitzmaurice* [1885] 29 Ch D 459 (CA); *BV Nederlandse Industrie Van Eiprodukten v Rembrandt Enterprises Inc* [2019] EWCA Civ 596, [2020] QB 551.

<sup>824</sup> *Attwood v Small* (1838) 6 Cl & F 232, 7 E.R. 684; *Jennings v Broughton* (1853) 5 De GM & G 126, 43 ER 818; *Smith* (n 803); *Holmes v Jones* (1907) 4 CLR 1692.

<sup>825</sup> *Horsfall v Thomas* (n 780); *Leeds City Council v Barclays Bank Plc* (n 803) 65; Beale (n 610) 9-041.

<sup>826</sup> (n 803) [102]. See also Longmore LJ in *BV Nederlandse Industrie Van Eiprodukten v Rembrandt Enterprises Inc* (n 823) [32] and *Hayward v Zurich* [2016] UKSC 48, [2017] AC 142 [29].

<sup>827</sup> *Leeds City Council v Barclays Bank Plc* (n 803) [65].

<sup>828</sup> Regarding Dark Patterns and their taxonomy, see 2.2.1.



Therefore, whenever an AI/CM makes or uses a false statement addressed to the user that will impact the addressee's mind and induce an agreement, the doctrine of misrepresentation can protect the user. An example is a chatbox on an online purchase store that, after identifying that the social proof bias (the tendency to do what the others do) and the scarcity bias (the tendency to buy if there is limited availability) are routes to System 1 (the primordial brain) of the user, falsely states that their friends just bought the product and that, if they want to be part of the group, they must hurry, because there is just one piece left and another user is online attempting to buy the same product.

However, the doctrine of misrepresentation is not adaptable to the second kind of CM, CM2, which does not use false information but covertly affects System 1. A possible scenario is that of an e-cigarette previously considered.<sup>829</sup> In this scenario, Party A, using the knowledge and ability that solely an AI-driven system can have, deliberately designed and presented the options available to Party B to exploit decision-making biases to nudge the counterparty to the option preferred by the choice architect, inducing Party B to enter a contract 'by identifying the potential needs to be met by the contract'<sup>830</sup> and hypernudging a pre-chosen result. Party B chose the predicted option, unaware of the entire process. The unawareness precludes the applicability of the doctrine of misrepresentation, as the representation is not actively present in the user's mind, and the doctrine requires it.<sup>831</sup>

In this scenario, there are statements. However, no false information is given, precluding a fraud or a 'fiction of fraud'.<sup>832</sup> The decision results from a hypernudge covertly affecting System 1 without false information. Still, Party B's decision-making process is affected, and with it, Party B's autonomy and mental self-determination.

Some further thoughts should be given to the fact that information bubbles are used in the e-cigarette scenario,<sup>833</sup> and online content in an information bubble could be regarded as a statement.<sup>834</sup> However, it should be considered that information presented in the bubble can be accurate (not false) and filtered for the user according to their cognitive biases. Therefore, information in an information bubble might not be a false representation but a partial representation of reality. As considered above, a partial truth can be regarded as a misrepresentation according to the context in which it is made if the facts omitted render what was stated false or misleading.<sup>835</sup> However, in the case of an information bubble, the filtering according to personalisation does not render the accurate information a partial

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<sup>829</sup> See the example made in 4.3.2.3.

<sup>830</sup> Ebers (n 412) vi preface.

<sup>831</sup> *Leeds City Council v Barclays Bank Plc* (n 803) [65].

<sup>832</sup> *ibid* 306; Atiyah and Treitel, 'Misrepresentation Act 1967' (n 746) 373; Peel (n 642) 278.

<sup>833</sup> See 3.1.

<sup>834</sup> See 3.4.4.1. It shall also be considered that content might be an opinion and not a statement.

<sup>835</sup> *Jewson & Sons Ltd* (n 816); *R v Bishirgian* (n 816); *Oakes v Turquand* (n 816); *Barwick* (n 816); *Arkwright v Newbold* (n 816) 318; *R v Kylsant* (n 816); Atiyah and Treitel, 'Misrepresentation Act 1967' (n 746) 370.

truth relevant to the doctrine. An average user is aware of the existence of different information that does not appear in their searches or on the first page of their apps. An average user is aware that they can always access different information, for example, on the second page of Google or by scrolling down, even if the availability bias discussed above makes it unlikely that the user will look at the second page.<sup>836</sup> If the user signed an online agreement which authorised cookies and personalised content, this action would prevent further investigation under an objective test. It would be reasonable for an average individual to understand that the information given is personalised and, therefore, necessarily selected from the other existing information.<sup>837</sup>

Moreover, the statement in an information bubble will be addressed to more than one user. The bubbles use news and information not created for or addressed to a single user. They are meant for the general public. A bubble differs from a personalised commercial sent, for example, with an email or a chatbox. The kind of representation relevant under the doctrine of misrepresentation should be directed to the representee or to a class of which the representee can claim to be part. It is also challenging to state that an individual can claim to be part of the class affected by a cognitive bias while unaware of the manipulative process.

Therefore, the doctrine of misrepresentation can protect the users from CM that uses false statements as a human would. However, the doctrine of misrepresentation is 'less adaptable to deal with incompleteness, ambiguity, manipulative presentation formats or exploitations of cognitive biases'.<sup>838</sup>

An AI/CM that acquires Big Data on the users, identifies their cognitive biases, and accordingly (hyper) nudges the users affecting System 1 without deception does not fall under the doctrine of misrepresentation.<sup>839</sup> In this case, the decision is situated in a blurred line between persuasion and *peithenanke* (the unlawful use of persuasion), being, in any case, not the result of autonomy and mental self-determination.

### 7.1.2 Mistake

The second doctrine to take into account in order to contemplate if it can be helpful to protect individuals from CM is the doctrine of mistake.<sup>840</sup>

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<sup>836</sup> Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450) 28.

<sup>837</sup> See 6.3 for objectivity.

<sup>838</sup> Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450) 29.

<sup>839</sup> Ebers (n 412) 28; Mik, 'The Erosion of Autonomy in Online Consumer Transactions' (n 450).

<sup>840</sup> On the doctrine of mistake, see Patrick S Atiyah and Francis AR Bennion, 'Mistake in the Construction of Contracts' (1961) 24 Mod LR 421; Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (n 746); Cartwright and Schmidt-Kessel (n 733).

As considered by Ibbetson, the general idea in medieval law was that contractual liability depended on the party's voluntary act.<sup>841</sup> Consequently, every circumstance that could interfere with voluntariness would destroy the basis for liability. Ibbetson underlines that the courts, particularly the Chancery, in the seventeenth and eighteenth centuries, started developing the idea of vitiating factors, circumstances that could undermine the voluntariness and the mental capacity of the parties. The most evident was a fraud. There was room for invalidating the contract stipulated by a lunatic.<sup>842</sup> Duress<sup>843</sup> could be expanded from imprisonment to cases of undue influence<sup>844</sup> even if, in the absence of a previous relationship, there was the need for the situation to fall into 'some definition of fraud', as stated in *Fox v Mackreth* by Lord Thurlow L.C.<sup>845</sup> According to Ibbetson there was little space for mistakes. The Chancery could rectify a document that did not reflect the actual agreement or where an individual misapprehended reality, and there was a suspicion of some sharp practice from the other party. However, the courts would not interfere if one party was not taking advantage of the other.<sup>846</sup>

As already considered in the previous sections, starting from the late 1700s, the English courts borrowed concepts from civil law,<sup>847</sup> and mistake is a vitiating factor in civil law and an element of the civil law concept of *dolus*.<sup>848</sup> Both concepts of mistake and *dolus* developed in the general theory of the will to protect individuals from vitiating consent factors.<sup>849</sup> According to Pothier, quoted by Ibbetson in explaining how English contract law elaborated this concept, a mistake is the most significant defect of consent because agreements need to be based on the consent of the parties, and there is no consent when the parties are mistaken regarding the object of the contract.<sup>850</sup> However, while fraud, duress and different kinds of interference, such as undue influence, were taken into account by the courts, the common law was reluctant to discuss mistakes and avoided the concept to any possible extent and with different means, such as a formal construction of documents or not allowing the parties to give evidence.<sup>851</sup>

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<sup>841</sup> Ibbetson (n 628) 208.

<sup>842</sup> See 7.1.7.

<sup>843</sup> See 7.1.4.

<sup>844</sup> See 7.1.5.

<sup>845</sup> (1788) 2 Bro CC 400, 29 ER 224, 420; Ibbetson (n 628) 209.

<sup>846</sup> *ibid* 210.

<sup>847</sup> See 7.1.1.1.

<sup>848</sup> See 7.4.5.

<sup>849</sup> Trabucchi, *Il Dolo Nella Teoria dei Vizi del Volere* (n 782); Palumbo (n 782); Gallo, 'I Vizi del Consenso' (n 782). For a discussion regarding defective consent under Italian law, see 7.4.

<sup>850</sup> Robert Joseph Pothier, *A Treatise on the Law of Obligations, or Contracts* (Robert H. Small 1839) 1.1.1. first paragraph; Ibbetson (n 628) 225-226.

<sup>851</sup> Ibbetson (n 628) 226.

Pothier's influence became apparent in the literature starting from the end of the nineteenth century.<sup>852</sup> According to Pollock, for example, there can be no fraud in the absence of a mistake, and he links the misapprehension of reality with different situations that require the wrongdoing of the other party or not. Pollock suggests that ignorance not caused by the other party constitutes a mistake, induced without a wrongful intention from the other party constitutes misrepresentation and induced with a wrongful intention constitutes fraud.<sup>853</sup> As considered by Gordley, the writers borrowed concepts from the natural lawyers, who had borrowed 'from the late scholastics who had founded them on the philosophy of Aristotle and Thomas Aquinas'.<sup>854</sup> However, according to Gordley, the philosophy at the basis of the reasoning was almost unintelligible to them. The writers borrowed sentences and then changed them to make them compatible with the concepts that were not borrowed.<sup>855</sup> If it was considered in the eighteenth and nineteenth centuries that fraud and duress impacted consent, even if the attention shifted to injustice, the question of the effect of a mistake on consent in English contract law was avoided as much as possible.<sup>856</sup> In some cases, such as *Thornton v Kempster*,<sup>857</sup> the courts referred to the lack of agreement. According to Gordley, *Raffles v Wichelhaus*<sup>858</sup> was cited by law treaty writers to state that a mistake erases consent, even if the case does not theorise on the nature of the mistake and the impacts on consent. The nature of the mistake remained challenging in the courts.<sup>859</sup> The jurists in England attempted to theorise the mistake but, according to Gordley, with as little success as their colleagues in France and Germany.<sup>860</sup> They discussed the identity of the object, properties that could bring the object into a species or that were relevant to the parties, and a mistake in the identity. They focused on mistaking the substance or the essence, but according to Gordley, they showed how little they understood the concepts they borrowed.<sup>861</sup> The rise of the objective theory contributed to shifting the attention to the consequences of what the parties said and did more than to a theory connected to the will.<sup>862</sup> Therefore, according to Macmillan, the theories borrowed from civil law, including that of mistake, were adapted to the

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<sup>852</sup> Beale (n 610) 5-012; Catharine MacMillan, 'Mistaken Arguments: The Role of Argument in the Development of a Doctrine of Contractual Mistake in Nineteenth-century England' in Andrew Lewis and Michael Lobban (eds), *Law and History: Current Legal Issues 2003*, Vol 6 (OUP 2004); Catharine MacMillan, *Mistakes in Contract Law* (Hart Publishing 2010).

<sup>853</sup> Percy H Winfield (ed), *Pollock's Principles of Contract* (12th ed, Stevens 1946) 358.

<sup>854</sup> Gordley (n 60) 134-135.

<sup>855</sup> *ibid.*

<sup>856</sup> *ibid* 141.

<sup>857</sup> (1814) 5 Taunt 786, 128 ER 901, 788.

<sup>858</sup> [1864] 2 Hurl & C 906, 159 ER 375.

<sup>859</sup> Gordley (n 60) 146.

<sup>860</sup> *ibid* 197.

<sup>861</sup> *ibid* 198.

<sup>862</sup> *ibid* 200.

common law.<sup>863</sup> The focus of defective consent shifted from the parties' will to the unconscionable conduct of one of them, procedural or substantive.<sup>864</sup>

The result is that today's scope of the doctrine of mistake is complex.<sup>865</sup> Chitty even doubts that a separate doctrine of mistake exists, overlapping with other concepts.<sup>866</sup> Smith, for example, has explained the concept of common mistake as an implied condition precedent to the contract.<sup>867</sup> According to Slade, a unilateral mistake can be considered an application of the principles of offer and acceptance.<sup>868</sup> The modern doctrine of mistake has different approaches, which attempt to bring different remedies under some common elements. It does not seem, however, that the attempts succeeded in rendering the doctrine coherent. The traditional distinction is to part a common mistake from a unilateral one and a mutual misunderstanding. However, according to Chitty, this distinction is limited, and the concept of mistake should be divided into two categories.<sup>869</sup> The first category includes a mistake in the contract's terms or the other party's identity. This category is characterised by a lack of agreement derived from a defect in communication and negates consent.<sup>870</sup> The second category refers to a common mistake regarding the facts or the law. This second kind of mistake does not negate the consent but nullifies it.<sup>871</sup> Therefore, consent is formed in this case, but on a wrong factual basis shared by the parties.

The next sections will follow this distinction, based on consent between other factors, and therefore coherent with this analysis's structure and the doctrine's origin. The analysis will focus on the kinds of mistakes relevant to CM that are not common or shared. CM requires one party to manipulate another, not two parties sharing a mistake, whether on the terms, facts or the law. Consequently, the following sections will consider the elements of unilateral mistakes in the terms and those in the identity, underlying the irrelevance of the unilateral mistake as to the facts.

#### *7.1.2.1 Unilateral Mistakes in Terms and Identity*

A unilateral mistake in the terms occurs when one party is mistaken about the contract terms, and the other is aware of such a mistake.<sup>872</sup> In this sub-category of mistake, the question arises if one party

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<sup>863</sup> MacMillan, 'Mistaken Arguments' (n 852) 288.

<sup>864</sup> Ibbetson (n 628) 252-261.

<sup>865</sup> Beatson, Burrows and Cartwright (n 633) 265.

<sup>866</sup> Beale (n 610) 5-012. Regarding the nonexistence of a doctrine of common mistake, see CJ Slade, 'The Myth of Mistake in the English law of Contract' (1954) 70 LQR 385; KO Shatwell, 'The Supposed Doctrine of Mistake in Contract: A Comedy of Errors' (1955) 33 Can B Rev 164.

<sup>867</sup> JC Smith, 'Contracts - Mistake, Frustration and Implied Terms' (1994) 110 LQR 400.

<sup>868</sup> Slade (n 866).

<sup>869</sup> Beale (n 610) 5-002.

<sup>870</sup> *ibid* 5-009.

<sup>871</sup> *Bell v Lever Brothers Ltd* [1932] AC 161 (HL) 217.

<sup>872</sup> *Hartog* (n 886).

knew that the other party was mistaken.<sup>873</sup> A mistake as to the terms can exist even if the other party did not know but should have known of the existence of the mistake. However, the relevance of this second possibility has no clear authority under English contract law.<sup>874</sup> The significance of this possibility can be found in *Centrovincial Estates Plc v Merchant Investors Assurance Co Ltd*,<sup>875</sup> in which it is stated that if the other party did not know and had no reason to know of the mistake, they are entitled to hold the mistaken party to the terms of the contract in their objective sense.<sup>876</sup> In the same sense, in *OT Africa Line Ltd v Vickers Plc*,<sup>877</sup> it is stated that it should be considered, according to the objective test, a mistake by one party that the other knew or ought reasonably to have known. The same case states that a mistake should also be considered relevant when one party refrained from making or failed to make enquiries when these were reasonably needed.<sup>878</sup> Furthermore, in *Deutsche Bank (Suisse) SA v Khan*,<sup>879</sup> it is considered by the defendant that a mistake that is not known nor ought to have been known could be relevant if the non-mistaken party induced it. However, Hamblen J doubted that such a principle exists in English law.<sup>880</sup>

In all the abovementioned decisions, a similarity could be identified with what was already stated regarding misrepresentation. English contract law attempts to find a balance between the parties, between the principle of caveat emptor and the necessity not to take advantage of the other party. From one side, the party's responsibility is to find and understand information, applying their mind to the contract. On the other hand, English contract law will not allow a party to induce a mistake or to take advantage of it if it was recognised or, according to some decisions, recognisable. The objective test always leads the balancing.

In any case, not every unilateral mistake known to the other party will be relevant. The objective test precludes investigating the actual mind of the parties, the motive and what is not transferred into contractual terms. Therefore, the unilateral mistake should relate to the terms, not the facts. If the mistake relates to the facts, it is considered an error in motive, irrelevant under English contract law.<sup>881</sup> In *Smith v Hughes*,<sup>882</sup> in the direction given by the court to the jury, there is a clear distinction between an error in the motive and a mistake as to the terms of the contract. If the

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<sup>873</sup> Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (n 746) 13-24—13-26.

<sup>874</sup> Beale (n 610) 5-023, referring to *Merrill Lynch International v Amorim Partners Ltd* [2014] EWHC 74 (QB).

<sup>875</sup> (n 634).

<sup>876</sup> See 6.3 for objectivity.

<sup>877</sup> (n 636) 703.

<sup>878</sup> *ibid.* However, the doctrine of rectification seems to require actual knowledge. See Beale (n 610) 5-023

<sup>879</sup> [2013] EWHC 482 (Comm).

<sup>880</sup> *ibid* [265]–[268].

<sup>881</sup> *Balfour v Official Manager of Sea Fire Life Assurance Company* (1857) 3 CB (NS) 300, 140 ER 756; *Scrivener v Pask* (1865-66) LR 1 CP 715 (Ex Ch); *Pope v Buenos Ayres New Gas Co* (1892) 8 TLR 758; *Gill v M'Dowell* [1903] 2 Ir Rep 463; *G & S Fashions v B&Q Plc* [1995] 1 WLR 1088 (Ch); *Bank of Credit and Commerce International SA (In Liquidation) v Ali* [1999] 2 All ER 1005 (Ch) 1019.

<sup>882</sup> (n 618).

defendant thought the oats were old oats (a fact in contrast with another fact), this error is considered a mistake in the motive and is irrelevant. Instead, if the defendant mistakenly believed that the oats were being offered to him as old oats, this would be a mistake as to the terms relevant under English contract law if known by the other party. The doctrine of mistake does not consider a misapprehension of the facts surrounding the contract unless the parties share it.<sup>883</sup> A mistake regarding the facts will be relevant in a common mistake and if it is shared and fundamental.<sup>884</sup>

There is no clarity under English contract law on the consequences of a unilateral mistake.<sup>885</sup> According to *Hartog v Colin & Shields*<sup>886</sup> and *Smith v Hughes*,<sup>887</sup> the possible effect of the mistake to the terms is that the contract is void. There also is the possibility that the contract can be considered void or voidable.<sup>888</sup>

A unilateral mistake possibly relevant to PT can refer not to the terms but to the identity of the other contracting party.<sup>889</sup> The identity of the person with whom one is contracting or proposing to contract is often immaterial. However, in some circumstances, it can be considered material.<sup>890</sup> If the identity of the other contracting party is material, an individual cannot constitute themselves as a contracting party with a counterparty that did not intend to contract with them. According to *Shogun Finance Ltd v Hudson*, an offer can be accepted uniquely by the person to whom it is addressed.<sup>891</sup> However, according to Chitty (referring to *Boulton v Jones*),<sup>892</sup> the question that should be asked is not 'with whom did the offeror intend to contract?' but 'how would the offer have been understood by a reasonable man in the position of the offeree'.<sup>893</sup> Therefore, the test is objective and used to identify the parties to the contract.<sup>894</sup> There will be no contract if there is no objective agreement regarding the parties to the contract.<sup>895</sup>

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<sup>883</sup> Beatson, Burrows and Cartwright (n 633) 296.

<sup>884</sup> *John Lobb Ltd v John Lobb SAS* [2021] EWHC 1226 (Ch), [2023] ETMR 1; *Great Peace Shipping Ltd v Tsavlis Salvage (International) Ltd (The Great Peace)* [2002] EWCA Civ 1407, [2003] QB 679; *Triple Seven MSN 27251 Ltd v Azman Air Services Ltd* [2018] EWHC 1348 (Comm), [2018] 4 WLR 97 [76] (MacDonald Eggers QC); *Associated Japanese Bank (International) Ltd v Crédit du Nord* [1989] 1 WLR 255 (QB); *National Private Air Transport Co v Kaki* [2017] EWHC 1496 (Comm).

<sup>885</sup> Beale (n 610) 5-034.

<sup>886</sup> [1939] 3 All ER 566 (KB).

<sup>887</sup> (n 618).

<sup>888</sup> Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (n 746) 13-28; John Cartwright, 'Unilateral Mistake in the English Courts: Reasserting the Traditional Approach' (2009) *Singapore Journal of Legal Studies* 226.

<sup>889</sup> *Cundy v Lindsay* (1878) 3 App Cas 459 (HL); Arthur L Goodhart, 'Mistake as to Identity in the Law of Contract' (1941) 57 LQ Rev 228; G C Cheshire, 'Mistake as Affecting Contractual Consent' (1944) 60 LQR 175; Christopher Hare, 'Identity Mistakes: a Missed Opportunity' (2004) 67 Mod LR 993; Catharine MacMillan, 'Rogues, swindlers and cheats: The Development of Mistake of Identity in English Contract Law' (2005) 64 CLJ 711; DW McLauchlan, 'Mistake of Identity and Contract Formation' (2005) 21 *Journal of Contract Law* 1.

<sup>890</sup> Beale (n 610) 5-037.

<sup>891</sup> [2003] UKHL 62, [2004] 1 AC 919 [63], [125], [184].

<sup>892</sup> (1857) 2 Hurl & N 564, 157 ER 232.

<sup>893</sup> Beale (n 610) 5-038.

<sup>894</sup> *Lumley v Foster & Co Group Ltd* [2022] EWHC 54 (TCC); *ibid* Beale (n 610) 5-039.

<sup>895</sup> *Whittaker v Campbell* [1984] QB 318 (CA); *Shogun Finance Ltd* (n 891) 125 (Lord Phillips).

English contract law further distinguishes the possibility of a mistaken identity being relevant between a written and an oral contract. When the parties deal in a face-to-face transaction, the court will presume that each party wants to deal with the party in front of them.<sup>896</sup> However, the issue of mistaken identity in a face-to-face transaction has contrasting views.<sup>897</sup> English contract law has a different, more coherent approach to a written agreement. Where the contract, or the negotiation, is in writing, only the persons named in the document can be parties.<sup>898</sup> It shall be noted that, in the language used in *Cundy v Lindsay*,<sup>899</sup> the influence of civil law and the theory of the will can be observed.<sup>900</sup> The court refers to the mind of the parties, stating that solely the parties mentioned in the contract could be considered parties to the contract and that a mistake as to the identity renders the contract void.<sup>901</sup> However, as underlined by MacMillan, in the arguments of the barrister and the court, no direct reference to civil law can be observed, even if the arguments were based on civil law. Instead, the explicit reference to civil law is observable in the discussions and reasonings of the courts at the end of the 1800s.<sup>902</sup>

Therefore, a mistake in a written contract as to the identity of the parties is a matter of protecting the will. However, the mentioned protection, as always, is given from an objective perspective. As Lord Hobhouse observed in *Shogun Finance Ltd v Hudson*, the law does not generally allow oral evidence to contradict the written terms of a contract.<sup>903</sup> This rule, also known as the parol evidence rule, was referred to in Chapter 6 concerning the objective test.

Finally, it should be underlined that the doctrine of a mistake to the other party's identity is connected to fraud.<sup>904</sup> It generally occurs where identity is fundamental to the contract and an ongoing relationship is contemplated.<sup>905</sup> Where a party would have dealt with anyone, there can be no mistake of identity.<sup>906</sup> Moreover, a relevant mistake would be solely on the identity, while a mistake as to the attributes of the other party will usually have no relevance.<sup>907</sup>

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<sup>896</sup> See the speech of Lord Walker in *Shogun Finance Ltd* (n 891) [184]–[185].

<sup>897</sup> *Phillips v Brooks* [1919] 2 KB 243 (KB); *Ingram v Little* [1961] 1 QB 31 (CA); *Lewis v Averay* [1972] 1 QB 198 (CA); Goodhart, 'Mistake as to Identity in the Law of Contract' (n 889) 241.

<sup>898</sup> Beale (n 610) 5-042.

<sup>899</sup> (n 889).

<sup>900</sup> MacMillan, 'Mistaken Arguments' (n 852).

<sup>901</sup> (n 889) 465.

<sup>902</sup> MacMillan, 'Mistaken Arguments' (n 852) 307.

<sup>903</sup> (n 891) [47] – [50].

<sup>904</sup> MacMillan, 'Mistaken Arguments' (n 852) 305.

<sup>905</sup> *Cundy* (n 889).

<sup>906</sup> MacMillan, 'Rogues, Swindlers and Cheats' (n 889).

<sup>907</sup> *Lewis* (n 897) 215; *Whittaker* (n 895) 324. Regarding a mistake as to the identity of an agent, see *Hardman v Booth* (1863) 1 H & C 803, 158 ER 1107. Regarding mistake as to the identity of a messenger, see *Midland Bank Plc v Brown Shipley & Co Ltd* [1991] 2 All ER 690 (Com Ct); Bale (n 610) 5-045.



### 7.1.2.2 *Mistake and consent*

In the categories of mistakes, the law protects consent, as the doctrine of misrepresentation does. As considered above, the role of consent in this doctrine results from integrating civil law into the common law. For example, this integration appears evident in the references made by Blackburn J to Roman law in *Street v Blay*.<sup>908</sup> Moreover, in both kinds of mistakes, the law protects a positive belief, even if wrong.

However, English contract law does not protect an individual who does not think about an issue.<sup>909</sup> The same approach has been underlined above regarding the doctrine of misrepresentation.<sup>910</sup> There is a distinction in English contract law between incorrect conscious beliefs, incorrect implicit assumptions, and mere causative ignorance.<sup>911</sup> Causative ignorance means that the individual acted as he did because of their ignorance.<sup>912</sup> As stated in *Pitt v Holt*, ‘If someone does not apply his mind to a point at all, it is difficult to say that there has been some real mistake about the point’.<sup>913</sup>

Therefore, not reading and not taking into account a possible issue does not generally receive any protection under English contract law.<sup>914</sup>

It should also be noted that the mere fact that one party is mistaken in their mind is insufficient to render a contract void, and the motive is irrelevant. This statement is a consequence of the objective approach described above and the evolution of the consensus theory. In the past, the courts have been more reliant on the consensus, being disposed to consider that, in the absence of full, free consent, no contract could exist.<sup>915</sup> However, in the practical use of the consensus theory, it has to be taken into account that a fully operative mistake would render the contract void ab initio, with undesirable impacts on the property and possibly on a third party. As stated above regarding consent and the objective test,<sup>916</sup> certainty is one of the leading concepts under the increased use of the objective test, and certainty is incompatible with the possibility of rendering a contract void. The courts have displayed a mixed response to this problem. It has been stated that each party is responsible for checking the significant facts concerning the contract or asking for confirmation or a warranty from

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<sup>908</sup> (1831) 2B &Ad 456, 109 ER 1212.

<sup>909</sup> Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (n. 746) 12-03; Beale (n. 610) 5-007.

<sup>910</sup> 7.1.1.1, 7.1.1.3.

<sup>911</sup> Charles Mitchell, Paul Mitchell and Stephen Watterson, *Goff & Jones: the Law of Unjust Enrichment* (Sweet & Maxwell 2011) 9-32–9–42, cited by *Pitt v Holt* [2013] UKSC 26, [2013] 2 WLR 1200 [108].

<sup>912</sup> *Pitt* (n 911) [108].

<sup>913</sup> [2010] EWHC 45 (Ch), [2010] 1 WLR 1199 [50].

<sup>914</sup> See 6.3.

<sup>915</sup> *Smith v Wheatcroft* (1878) 9 Ch D 223 (Ch) 230; *Gordon v Street* [1899] 2 QB 641 (CA) 647; *Phillips* (n 897) 248; *Said v Butt* [1920] 3 KB 497 (KB) 501; *Lake v Simmons* [1927] AC 487 (HL) 501; *Sowler v Potter* [1940] 1 KB 271 (KB) 274; *Solle v Butcher* [1950] 2 KB 671 (CA) 692 (Denning LJ); *Lewis* (n 897) 206 (Lord Denning MR).

<sup>916</sup> See 6.3.

the other party regarding significant facts.<sup>917</sup> This concept is similar to what has been considered by the courts in the evolution of the doctrine of misrepresentation and on the application of the idea of caveat emptor. There is a need in English contract law to protect the bargains from being considered void. The courts developed an even more flexible doctrine of mistake in equity, which rendered the contract not void ab initio but only voidable, and that was influenced by civil law, in which a mistake renders the contract voidable.<sup>918</sup>

Therefore, according to all the above, it can be stated that the complex doctrine of mistake has its roots in the civil law theory of the will and thus protects consent. However, it does so from an objective perspective and does not allow the motive to be considered. The doctrine does not protect an individual who does not apply the mind on a possible issue, specifically when the contract is in writing. The doctrine will protect, instead, one party from the other if that party induces the mistake or attempts to take advantage of a recognised or, in some cases, recognisable mistake.

### 7.1.2.3 *Mistake and CM*

The doctrine of mistake does not adhere to CM. The party induced to contract with a hypernudge is not mistaken regarding the contract terms. Under an objective test, the party does not misunderstand but knows what contracting is about, even if they have been brought to that specific agreement by being affected in System 1 (the primordial brain). There is no difference between what an individual represents in their mind (A: for example, the e-cigarette for a price) and reality (B: always the e-cigarette for a price). They coincide. There is no unilateral mistake as to the terms of the contract. The terms are objectively agreed upon, even if the need for them is induced through CM.

There is also no shared mistake as to the facts. CM2 relies on the unawareness of one party regarding how the manipulative process is achieved, which is irrelevant to the doctrine examined here. The question of a possible misapprehension of the reality as to the facts surrounding the contract cannot even be asked because this kind of mistake is relevant only if it is shared. A unilateral mistake in the facts is an irrelevant mistake in the motive.

It should also be considered that if a mistake existed in CM, it would have been willingly induced by the other party. An induced mistake could be possibly dealt with by the doctrine of misrepresentation, considered in the previous section, and not by the doctrine of mistake.

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<sup>917</sup> *Bell v Lever Brothers Ltd* (n 871) 224 (Lord Atkin).

<sup>918</sup> *Associated Japanese Bank (International) Ltd* (n 884) 267–8; MacMillan, 'Mistaken Arguments' (n 852) 308. See also 7.4.

It shall be considered if a mistake as to the other party could be identified. During a persuasive process, the users may not be aware that they are interacting with an AI. Therefore, it shall be considered if the lack of awareness might be considered a mistake regarding the other party's identity.

The question of a mistake regarding the other party's identity cannot even be raised before a contract exists. The doctrine of mistake is centred on the parties to a contract, not on a negotiation. Moreover, it shall be considered that before and while contracting, there is no general duty to disclose information and no specific duty under existing legislation to disclose such information. Furthermore, there is no mistake regarding the other contracting party if an AI is used in the process because the party to the contract is not the AI but the subject (natural or juridical person) that uses the AI. It shall also be considered that if the user does not know that they are interacting with an AI, they do know they are interacting with a piece of technology used by a contracting party. It should also be considered that if the interaction between the user and the AI results in a written (online or paper) contract, the parole evidence rule will not allow a party to bring oral evidence to contradict the written terms of a contract. The contract's parties will be those identified in the contract and, therefore, not the AI.

Therefore, the doctrine of mistake, in none of its aspects, can deal with CM. CM does not rely on a mistake but on the information given to the party according to their identified routes to System 1. The party is not mistaken regarding the terms or the other party's identity. The manipulee knows under an objective test what they are contracting for and correctly identifies, after a hypernudge, the terms and the other party, which is not the AI.

### **7.1.3 Non est factum**

As considered in the previous section and Chapter 6,<sup>919</sup> according to English contract law, a party shall be deemed bound by a signed document.<sup>920</sup> It brings uncertainty to allow a possible defence for those who did not take the time to read through a document before signing it. English contract law reaches the same conclusion in case of unawareness of the legal effects of a document. As Donovan LJ explained in *Muskham Finance Ltd v Howard*, 'Much confusion and uncertainty would result in the field of contract and elsewhere if a man were permitted to try to disown his signature simply by asserting that he did not understand that which he had signed'.<sup>921</sup>

However, English contract law considers the possibility that the person who signed it cannot read or apprehend the content of a document. In this case, the defence of non est factum will be

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<sup>919</sup> See 6.3.1.2.

<sup>920</sup> *L'Estrange* (n 672).

<sup>921</sup> [1963] 1 QB 904 (CA) [912].

admissible.<sup>922</sup> This doctrine dates back to 1584 and considers cases in which a party has been misled and signed a document or deed different from the one they intended to sign.<sup>923</sup> As considered by Baker, the defence of non est factum consisted in denying that the writing put forward was the party's deed. The denial could happen for formal reasons, and in its evolution, the doctrine started contemplating cases of constructive non est factum, cases in which the party did not understand correctly.<sup>924</sup> The first possibility was an illiterate person who could not read Latin and was misled by another person regarding the document's content. A second case was spoliation after execution. The third was some sort of incapacity, such as individuals in a coma, lunatics and drunkards. According to Baker, the doctrine developed and included all the cases in which an individual, without their fault, was deceived into a contract, those that could not protect themselves and those of blindness.<sup>925</sup>

As stated in *Carlisle & Cumberland Banking Co v Bragg*, the doctrine protects consent because the individual's mind did not go with its pen.<sup>926</sup> The doctrine, as considered by Spencer, is a kind of mistake.<sup>927</sup> As the doctrines considered before in this analysis, the doctrine of non est factum is also connected to fraud,<sup>928</sup> even if the presence of fraud has been considered unnecessary for the defence to succeed.<sup>929</sup> Spencer states that fraud, misrepresentation and non est factum are species of mistake.<sup>930</sup> The three mentioned doctrines cover different but often overlapping aspects of vitiated consent. It is clear from the evolution of the doctrines, as analysed by Ibbetson,<sup>931</sup> Gordley,<sup>932</sup> and Macmillan,<sup>933</sup> that while the writers were borrowing concepts from the civil law without understanding them entirely, the reality of the practice was borrowing elements that were functional to a concrete case, focusing on solving issues without theorising them, in order to avoid unfairness and unconscionability of some bargains.

The consequence of the overlapping doctrines is that, in practice, the same issue could be considered under different doctrines, and the doctrine of non est factum has a small field left from the other doctrines. It can be applied when a third party is involved in the contract. The first case arises

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<sup>922</sup> John H Baker, 'Non Est Factum' (1970) 23 CLP 53; Spencer, 'Signature, Consent, and the Rule in L'Estrange v. Graucob' (n 646); Mindy Chen-Wishart, 'Contractual Mistake, Intention in Formation and Vitiating: The Oxymoron of Smith v Hughes' in Jason W. Neyers, Richard Bronaugh and Stephen G A Pitel (eds), *Exploring Contract Law* (1 edn, Hart Publishing 2009); Beatson, Burrows and Cartwright (n 633) 275.

<sup>923</sup> Beale (n 610) 5-049; Holdsworth (n 58).

<sup>924</sup> Baker (n 922) 53-54.

<sup>925</sup> *ibid* 58-59.

<sup>926</sup> [1911] 1 KB 489 (CA).

<sup>927</sup> Spencer, 'Signature, Consent, and the Rule in L'Estrange v. Graucob' (n 646) 119.

<sup>928</sup> *Destine Estates Ltd v Muir* [2014] EWHC 4191 (Ch) 83.

<sup>929</sup> Beale (n 610) 5-049.

<sup>930</sup> Spencer, 'Signature, Consent, and the Rule in L'Estrange v. Graucob' (n 646) 119.

<sup>931</sup> Ibbetson (n 628).

<sup>932</sup> Gordley (n 60).

<sup>933</sup> MacMillan, 'Mistaken Arguments' (n 852).

when a third party commits fraud without the parties' knowledge.<sup>934</sup> The second is when one party commits fraud and a third party relies on the document signed.<sup>935</sup> Instead, when there is fraud or misrepresentation, and no third party is involved, as stated by the majority in *Lloyds Bank Plc v Waterhouse*,<sup>936</sup> the case should be dealt with through the doctrine of misrepresentation. According to the same precedent, there is also the possibility that if one party knew of the other party's mistake, the doctrine of unilateral mistake applies.

### 7.1.3.1 Elements of the Doctrine

Coming to the elements of the doctrine, the defence of non est factum applies to documents. The content or the effects of the document signed should differ from those intended to be signed.

The person invoking the doctrine should then be affected by some sort of disability that can influence their state of mind and induce a different belief on the document's content or effects. This kind of disability is explained in *Saunders* by Lord Reid and identified as being blind or illiterate or unable to understand a document's real purpose due to lack of education, illness, or innate incapacity.<sup>937</sup> To those shall be added the cases of individuals tricked into signing a document with effects different from what they were thinking.<sup>938</sup> However, as it happens regarding the other doctrines mentioned above, a party that does not care to read or understand cannot invoke this doctrine.<sup>939</sup>

The difference between the document intended to be signed and that signed must be substantial. The question is one of degree, as stated in *Saunders*, which changed the previous requirements of the doctrine, formerly held to be available only if the mistake was as to the very nature of the transaction.<sup>940</sup> A disparity between the document signed and that intended to be signed must exist, a difference described in *Saunders* as radical, fundamental, essential or very substantial.<sup>941</sup>

However, a substantial difference would not be enough. The doctrine requires a second element: the absence of negligence. There must be evidence that the claimant was not negligent in signing, ie, that they took reasonable care. The requirement of the absence of negligence was stated

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<sup>934</sup> *United Dominions Trust Ltd v Western* [1976] QB 513 (CA).

<sup>935</sup> *Saunders* (n 675).

<sup>936</sup> (1991) 10 Tr LR 161 (CA).

<sup>937</sup> (n 675) 1015-1016.

<sup>938</sup> *ibid* 1025.

<sup>939</sup> *Yedina v Yedin* [2017] EWHC 3319 (Ch) [262] (Mann J).

<sup>940</sup> (n 675); *Foster v Mackinnon* (1869) LR 4 CP 704 (CP); *Howatson* (n 675); *National Provincial Bank of England v Jackson* (1886) 33 Ch D 1 (CA); *Carlisle and Cumberland Banking Co v Bragg* (n 926); *Muskham Finance* (n 921).

<sup>941</sup> (n 675) 1017, 1022, 1026; Beale (n 610) 5-052.

in *Saunders*. Before this decision, the absence of negligence was considered unnecessary, as in *Carlisle & Cumberland Banking Co v Bragg*.<sup>942</sup>

Therefore, as a general rule, the defence is unavailable if a reasonable person, in full capacity, omits to read what they sign. This conclusion is coherent with what was already stated in this analysis regarding the doctrine of mistake and, more generally, regarding the formation of a contract. Even signing a blank document may not allow the existence of such a defence.<sup>943</sup> As stated in *Saunders*, the case in which the defence of non est factum could succeed is that of an illiterate or senile person who cannot read or apprehend a document or a blind person or a person tricked into signing the document.<sup>944</sup>

Considering all that was stated above, the defence of non est factum overlaps with the doctrines of misrepresentation and mistake and the concept of fraud. In any case, what English contract law protects with the doctrine of non est factum is the party's mind, which shall accompany the signature.<sup>945</sup> English contract law, instead, is coherent in not allowing any defence if the party omits to read or understand with negligence, having the cognitive possibility of doing so.

### 7.1.3.2 *Non Est Factum and CM*

The doctrine of non est factum cannot deal with CM and CM2.

As stated above, the doctrine requires that the content or the effects of the document signed differ from those intended to be signed. In the case of CM, the individual might not even sign a document on paper or online. If a document is signed, there will be no discrepancy between what the individual wanted to sign and the signed document. Non est factum is a kind of mistake; therefore, it can apply to this doctrine every reasoning made concerning the doctrine of mistake. When CM is involved, there is no discrepancy between the reality and the representation of the reality. When CM is involved, the issue regards the decisional processes, not the effect of the decision-making. The individual under CM will be willing to sign the document precisely as it was represented in their mind. The individual wants goods or services exactly as they have been hypernudged in their mind.

The issue is, consequently, not a substantial difference between A and B, as the doctrine requires. The issue is that the contract's content was covertly hypernudged in the user's mind, affecting System 1. This kind of inducement of thoughts happens in an individual who is not illiterate, senile, blind or has no abstract and objective incapacity to understand. The target of CM2, in every aspect of their mind, is present, and the individual has no disability in the sense intended in this doctrine. The

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<sup>942</sup> (n 926).

<sup>943</sup> *United Dominions Trust Ltd v Western* (n 934).

<sup>944</sup> (n 675) 1015–1016. An example of a person tricked into signing a document can be found in *Foster* (n 940)

<sup>945</sup> *Foster* (n 940) 711.

individual is perfectly able to, from an objective perspective, reason. Therefore, this doctrine will not be of help in dealing with CM.

#### 7.1.4 Duress

Another helpful doctrine concerning the possible protection against CM is the doctrine of duress, which has been broadly discussed in the literature.<sup>946</sup> This doctrine overlaps with different doctrines,<sup>947</sup> specifically those of undue influence and unconscionability, without a clear distinction.<sup>948</sup> Cope, for example, underlined that all cases of duress should be considered undue influence.<sup>949</sup> According to Birks and Yan, every case of pressure should be considered duress instead.<sup>950</sup>

According to Ibbetson, in the nineteenth century, the doctrine of duress and fraud dealt with defective consent. He underlines that the doctrine of duress was far less developed until the nineteenth century and hardly advanced from imprisonment. According to Ibbetson, traditionally, the object of the doctrine was the coercion of the will, which prevented true consent from arising.<sup>951</sup> As the doctrines of misrepresentation and mistake, this doctrine has long been considered to protect an individual's ability to form consent and make a free choice. As Gordley underlines, the concept of duress was mentioned together with fraud and mistake because they were treated together in Roman law. They rely together on the idea that consent is not relevant if it is not freely given.<sup>952</sup> Gordley analysed the evolution of this doctrine in the literature, stating that the concept of duress was linked in some views to the idea that it erases consent. However, he states that this idea of nullified consent was vehemently opposed, and the reason for relief in case of duress turned to a wrongful action.<sup>953</sup> Ibbetson states that, at the end of the twentieth century, the object shifted and became the wrongdoing of one party to the other.<sup>954</sup>

This shift is reflected in case law. In the case of duress, the courts initially focused on its ability to erase the possibility of a rational choice through the compulsion, or coercion, of the will.

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<sup>946</sup> See for example Patrick S Atiyah, 'Economic Duress and the 'Overborne Will' (1982) 98 LQR 197; Michael Philips, 'Are Coerced Agreements Involuntary?' (1984) 3 Law and Philosophy 133; Jack Beatson, 'Duress as a Vitiating Factor in Contract' (1974) 33 CLJ 97; Joan McGregor, 'Philips on Coerced Agreements' (1988) 7 Law and Philosophy 225; Rick Bigwood, 'Coercion in Contract: The Theoretical Constructs of Duress' (1996) 46 UTLJ 201; Stephen A Smith, 'Contracting under Pressure: A Theory of Duress' (1997) 56 CLJ 343; Nelson Enonchong, *Duress, Undue Influence and Unconscionable Dealing* (3rd edn, Sweet & Maxwell 2018).

<sup>947</sup> Beale (n 610) 10-001.

<sup>948</sup> See 7.1.5 and 7.1.6.

<sup>949</sup> Malcolm Cope, *Duress, Undue Influence and Unconscientious Bargains*, vol 5 (Lawbook Company 1985) 125.

<sup>950</sup> Chin Nyuk Yin and Peter Birks, 'On the Nature of Undue Influence' in Jack Beatson and Daniel Friedman (eds), *Good Faith and Fault in Contract Law* (OUP 1997) 63.

<sup>951</sup> Ibbetson (n 628) 252.

<sup>952</sup> Gordley (n 60) 181.

<sup>953</sup> *ibid* 181.

<sup>954</sup> Ibbetson (n 628) 252.

However, the perspective of the effects of duress on consent shifted after *Lynch v DPP of Northern Ireland*,<sup>955</sup> a case in which the court took into account a criminal law and a private law perspective simultaneously, referring to contract law in a criminal trial. Atiyah opposed the doctrine of coercion of the will in his work.<sup>956</sup> He argued that a victim of duress submits knowingly and intentionally. As previously considered in this analysis, duress does not deprive of all choices but erases the opportunity of accepting any other choice.<sup>957</sup> It is a choice between evils and does not render the victim's actions involuntary.<sup>958</sup>

Duress, in any case, impacts consent if it does not erase it. As Beatson stated, free consent is lacking in all cases of duress.<sup>959</sup> In *Lynch*, Lord Simon quoted Justinian and referred to *coaptus voli*.<sup>960</sup> The mentioned Latin expression means that the will is not erased by coercion but is deflected. The conclusion of Lord Simon, which compared criminal law and contract law, is that duress 'deflects without destroying, the will of one of the contracting parties'.<sup>961</sup> The intention of the party victim of duress is present and, with it, the consensus. However, the consensus is deflected and results in a compelled will. In a coherent attempt of English contract law to safeguard the existence of the contract to every permissible extent, the contract is, therefore, voidable, not void.<sup>962</sup>

Therefore, the consent is not erased by duress but is *coaptus*: deflected. A certain pressure causes deflection. However, to some extent, consent can be legitimately given under pressure. Valid consent, indeed, does not require freedom from pressure.<sup>963</sup> Consequently, duress impacts consent without erasing it but renders it invalid for a contract. This impact is evident in the approach expressed by the courts to find a causal link between the duress and the expression of consent resulting from the duress.<sup>964</sup> In the different approaches to causation concerning duress identified by the courts, there is always a reference to the alleged victim's consent.<sup>965</sup> However, the courts have shown unclarity regarding the effects of the impact on consent, stating again in different decisions following *Lynch* that duress erases consent in cases of economic duress.<sup>966</sup>

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<sup>955</sup> (n 611).

<sup>956</sup> Atiyah, 'Economic Duress and the 'Overborne Will' (n 946).

<sup>957</sup> See 3.1.1.

<sup>958</sup> McKendrick (n 645) 318.

<sup>959</sup> Beatson, 'Duress as a Vitiating Factor in Contract' (n 946) 106.

<sup>960</sup> (n 611) 694, referring to Justinian's *Digest* IV, ii. 21.5.

<sup>961</sup> *ibid* 695.

<sup>962</sup> *ibid*; *North Ocean Shipping Co Ltd v Hyundai Construction Co Ltd* [1979] QB 705 (Com Ct).

<sup>963</sup> *Barton* (n 611) 121 (Lord Wilberforce); Chen-Wishart, *Contract Law* (n 637) 323.

<sup>964</sup> Lord Goff in *Dimskal Shipping Co SA v ITWF (The Evia Luck) (No 2)* [1992] 2 AC 152 (HL) 165.

<sup>965</sup> See, for example, *Barton* (n 611). The court refers to consent and makes a comparison to fraud.

<sup>966</sup> *Occidental Worldwide Investment Corp v Skibs A/S Avanti* [1976] 1 Lloyd's Rep 293 (QB); *North Ocean Shipping Co Ltd* (n 962); *Pao On v Lau Yiu Long* [1980] AC 614 (PC Hong Kong); *Universe Tankships of Monrovia Inc v ITWF* [1983] 1 AC 366 (HL).



The courts seem to be willing to investigate, more than coercion, what constitutes the illegitimate pressure that causes the deflection of the will.<sup>967</sup> In *Universe Tankships Inc of Monrovia v ITWF*, the House of Lords recognised that ‘[t]he classic case of duress is ... not the lack of will to submit but the victim’s intentional submission arising from the realisation that there is no other practical choice open to him’.<sup>968</sup>

In *R v A-G for England and Wales*, Lord Hoffmann stated that two aspects must be examined: ‘the nature of the pressure and the demand to which the pressure is applied to support’.<sup>969</sup> There are, therefore, two aspects to be considered regarding the pressure: its illegitimacy and its effect on the victim. The illegitimacy of the pressure is a decisive factor. If it is clear that the threat of unlawful actions will be treated as illegitimate,<sup>970</sup> the threshold is unclear when it comes to a threat of lawful action. The fact that a threat is lawful does not coincide with the concept that the pressure is legitimate. It shall also be considered that in a typical commercial bargain, threats of lawful actions will be commonplace.<sup>971</sup> The illegitimacy, in case of economic duress,<sup>972</sup> has been considered by the courts as requiring an absence of reasonable alternatives.<sup>973</sup> In *DSND Subsea Ltd v Petroleum Geoservices ASA*, Dyson J stated that various factors must be considered:<sup>974</sup>

These include whether there has been an actual or threatened breach of contract; whether the person allegedly exerting the pressure has acted in good or bad faith; whether the victim had any realistic practical alternative but to submit to the pressure; whether the victim protested at the time; and whether he affirmed and sought to rely on the contract.<sup>975</sup>

The requirement of the illegitimacy of the pressure renders the line between duress, undue influence and unconscionable bargains challenging to draw. A threat to use violence or the use of such violence amounts to duress.<sup>976</sup> It is also clear that this kind of pressure is illegitimate in common

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<sup>967</sup> Alexander F H Loke, 'Excusable consent in duress' (2017) 37 LS (Society of Legal Scholars) 418.

<sup>968</sup> (n 966) 401.

<sup>969</sup> [2003] UKPC 22, [2003] EMLR 24 [16].

<sup>970</sup> *Dimskal Shipping Co SA* (n 964); *Royal Boskalis Westminster NV v Mountain* [1999] QB 674 (CA) 689, 730.

<sup>971</sup> *Rotamead Ltd v Durston Scaffolding Ltd* [2020] EWHC 2738 (TCC) [17], [20], [30]; *Oliver Dean Morley T/A Morley Estates v The Royal Bank of Scotland Plc* [2021] EWCA Civ 338, [2022] 1 All ER (Comm) 703 [54].

<sup>972</sup> John Dalzell, 'Duress by Economic Pressure I' (1941) 20 North Carolina LR 237; John Dalzell, 'Duress by Economic Pressure II' (1941) 20 North Carolina LR 341; PA Chandler, 'Economic Duress: Clarity or Confusion?' (1989) LMCLQ 270.

<sup>973</sup> *Pao On* (n 966); *Universe Tankships of Monrovia Inc* (n 966).

<sup>974</sup> [2000] BLR 530 (QB) 545.

<sup>975</sup> *ibid* 131.

<sup>976</sup> *Friedeberg-Seeley v Klass Times*, February 19, 1957; *Barton* (n 611); *Singh v Redford* [2018] EWHC 2390 (Ch).

law and that the effect of such pressure erases consent.<sup>977</sup> However, there are also cases where there is no violence but a threat that does not refer to violence, specifically in cases of economic duress. As considered by Dalzell, the question regarding duress in the economic contest is not if the free will of one party exists but the wrongful action of one party on the other consisting of a threat and the absence of other remedies.<sup>978</sup> This circumstance renders the doctrine of duress not easy to part from unconscionability and undue influence. In *Borrelli v Ting*,<sup>979</sup> duress was defined as ‘the obtaining of agreement or consent by illegitimate means’,<sup>980</sup> and Lord Saville used the word ‘unconscionable’.<sup>981</sup> In *Times Travel (UK) Ltd v Pakistan International Airlines Corp*,<sup>982</sup> David Richards LJ mentioned both doctrines of unconscionable bargains and undue influence, considering their relevance to the doctrine of economic duress.<sup>983</sup>

Therefore, it can be stated that the doctrine of duress protects a deflected and not erased consent and has roots in Roman law.<sup>984</sup> As Zimmermann explains, it was already apparent in Roman Law that if an individual forms their will under coercion, they form consent.<sup>985</sup> The concept of duress evolved with time, as it happened with the other doctrines examined. The evolution brought duress to be characterised, specifically in economic duress, by an illegitimate pressure, a wrongful action, a concept similar to that of another doctrine, that of undue influence, that will be analysed in section 7.1.5, after considering if duress can be a protection against CM.

#### 7.1.4.1 Duress and CM

Some of the possible applications of PT will fall under the doctrine of duress, as it would happen in a human-human scenario. A PT can use coercion, and coercion falls clearly under this doctrine. For example, a computer program or a website can impede access to the user's content if a particular action is not made, such as downloading an app for a price. A PT can apply pressure with continuous messages, emails, and pop-ups containing threats to obtain payment.

However, the doctrine of duress refers to illegitimate pressure, compulsion or coercion of the will that the individual perceives and understands, left with no other practical choice but a choice between evils. The mentioned pressure is not manipulation. It is coercion. This doctrine does not

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<sup>977</sup> *Al Nehayan v Kent* [2018] EWHC 333 (Comm) [216]; *Scott v Sebright* (1886) 12 PD 21 (F); *Griffith v Griffith* [1944] IR 35; *H. v H.* [1954] P 258 (F); *Szechter v Szechter* [1971] P. 286 (F); *Singh v Singh* [1971] 2 All ER 82 (CA); Beatson, 'Duress as a Vitiating Factor in Contract' (n 946); Andrew S Burrows, *The law of restitution* (3rd ed, OUP 2011).

<sup>978</sup> Dalzell, 'Duress by Economic Pressure I' (n 972) 240.

<sup>979</sup> [2010] UKPC 21, [2011] LMCLQ 333.

<sup>980</sup> *ibid* 34.

<sup>981</sup> *ibid*.

<sup>982</sup> [2019] EWCA Civ 828, [2019] 2 Lloyd's Rep 89.

<sup>983</sup> *ibid* 40.

<sup>984</sup> Gordley (n 60); Ibbetson (n 628).

<sup>985</sup> Zimmermann (n 791) 652.

cover CM's cases because CM operates covertly without perception, awareness and understanding. In the case of duress, the pressure is, instead, perceived and leads to a choice between evils.

When a second-generation dark pattern uses personalised heuristic routes to hypernudge an individual to a predetermined choice, covertly affecting System 1 without awareness and understanding, there is no choice between evils. The alternatives are not even perceived, nor is the pressure. CM induces a hypernudged choice that the target likes, not a choice between evils with no alternatives.

Therefore, the doctrine of duress can be a defence concerning a coercive PT. However, it cannot be considered a shield against CM.

### 7.1.5 Undue Influence

In *Tate v Williamson*,<sup>986</sup> referring to the doctrine of undue influence, Lord Chelmsford L.C. stated that '[t]he courts have always been careful not to fetter this useful jurisdiction by defining the exact limits of its exercise'.<sup>987</sup> The precise meaning and scope of undue influence are unclear, and the literature on the topic struggles to clarify them.<sup>988</sup> According to Bigwood, for example, this doctrine is defendant-focused.<sup>989</sup> It involves abusing an existing relationship based on trust, confidence, or an emotional or physical dependency.<sup>990</sup> According to Pollock, undue influence has the exact nature of fraud or compulsion and influences the will of one party, even if the influence is not proved but inferred from a relationship of dominion.<sup>991</sup> A similar line of thought is followed by Yin and Birks, according to whom the doctrine is not focused on the defendant but is connected to defective consent in the sense of an excessive or morbid dependency and a lack of capacity for self-management. Undue influence refers to situations in which judgment is impaired to an exceptional degree.<sup>992</sup>

The concept of undue influence overlaps with the concept of duress, initially strongly related to the absence of consent.<sup>993</sup> However, undue influence, as well as duress, can be coexistent with

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<sup>986</sup> (1866-67) LR 2 Ch App 55 (Ch).

<sup>987</sup> *ibid* 61.

<sup>988</sup> See for example Yin and Birks (n 950); W H D Winder, 'Undue Influence and Coercion' (1939) 3 MLR 97; Rick Bigwood, 'Undue Influence: 'Impaired Consent' or 'Wicked Exploitation'?' (1996) 16 OJLS 503; Andrew Phang and Hans Tjio, 'The Uncertain Boundaries of Undue Influence' (2002) LMCLQ 231; Ridge Pauline, 'Uncertainties Surrounding Undue Influence: its Formulation, Application, and Relationship to Other Doctrines' (2003) New Zealand LR 329; Mindy Chen-Wishart, 'Undue Influence: Beyond Impaired Consent and Wrongdoing towards a Relational Analysis' in Andrew Burrows and Alan Rodger (eds), *Mapping the Law: Essays in Memory of Peter Birks* (OUP 2006).

<sup>989</sup> Bigwood, 'Undue Influence' (n 988) 503.

<sup>990</sup> Beale (n 610) 10-072.

<sup>991</sup> Frederick Pollock, *Principles of Contract at Law and in Equity: Being a Treatise on the General Principles Concerning the Validity of Agreements, with a Special View to the Comparison of Law and Equity, and with References to the Indian Contract Act, and Occasionally to Roman, American, and Continental Law* (R. Clarke 1881) 503-4.

<sup>992</sup> Yin and Birks (n 950).

<sup>993</sup> See 7.1.4.

consent.<sup>994</sup> The doctrine of undue influence came into existence in equity to give protection in cases where consent was somehow present. As expressed by Ibbetson, it evolved at the end of the twentieth century, expanding the number of cases on which it could be applied and turning its focus from an impaired consent of the promisor to the improper conduct of the promisee.<sup>995</sup> The doctrine prohibited individuals from retaining the benefits of their wrongful actions or fraud. As stated in *Allcard v Skinner*:<sup>996</sup>

The first class of cases may be considered as depending on the principle that no one shall be allowed to retain any benefit arising from his own fraud or wrongful act. In the second class of cases the Court interferes, not on the ground that any wrongful act has in fact been committed by the donee, but on the ground of public policy, and to prevent the relations which existed between the parties and the influence arising therefrom being abused.<sup>997</sup>

The doctrine also, as noted by Bigwood referring to it as its sibling, which looks at the same thing with a different perspective,<sup>998</sup> overlaps with the concept of unconscionability, to which the courts referred, for example, in *Dunbar Bank Plc v Nadeem*.<sup>999</sup> Moreover, in *CIBC Mortgages Plc v Pitt*,<sup>1000</sup> Lord Browne-Wilkinson stated, ‘Actual undue influence is a species of fraud. Like any other victim of fraud, a person who has been induced by undue influence to carry out a transaction which he did not freely and knowingly enter into is entitled to have that transaction set aside as of right’.<sup>1001</sup>

Therefore, the concept of undue influence is similar to those of duress and unconscionability but also fraud, being one of its species. It is linked to taking advantage, the misuse of influence, the abuse of trust,<sup>1002</sup> and an impaired state of mind. In *Allcard v Skinner*,<sup>1003</sup> Lindley LJ stated that the purpose of the doctrine is to save individuals from being victimised by other people and

to protect people from being forced, tricked or misled in any way by others into parting with their property is one of the most legitimate objects of all laws; and the equitable

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<sup>994</sup> Beatson, Burrows and Cartwright (n 633) 382.

<sup>995</sup> Ibbetson (n 628) 254.

<sup>996</sup> (1887) 36 Ch D 145 (CA).

<sup>997</sup> *ibid* 171.

<sup>998</sup> Bigwood (n 988) 503.

<sup>999</sup> [1998] 3 All ER 876 (CA) 883–884 (Millett LJ).

<sup>1000</sup> [1994] 1 AC 200 (HL).

<sup>1001</sup> *ibid* 209.

<sup>1002</sup> (n 786) 8, 9, 10.

<sup>1003</sup> (n 996).

doctrine of undue influence has grown out of and been developed by the necessity of grappling with insidious forms of spiritual tyranny and with the infinite varieties of fraud.<sup>1004</sup>

In the same case, Cotton LJ referred to the necessity to ascertain the existence of an independent will and linked this necessity to reasons of public policy and aiming to avoid the abuse of a relationship.<sup>1005</sup>

The doctrine of undue influence was born related more to a procedural unfairness of the contract than a substantial one.<sup>1006</sup> The question regarding undue influence in the 1800s was not if an intention existed but how the intention was produced when a relationship was involved.<sup>1007</sup> The original reasons for the doctrine's existence changed with time, focusing on the potential disadvantage of the transaction and not on the consent or the conduct.<sup>1008</sup> In *Royal Bank of Scotland v Etridge (No.2)*,<sup>1009</sup> the traditional distinction between two kinds of undue influence, actual and presumed,<sup>1010</sup> was recognised as a matter of evidence and not of substance, and the doctrine's focus shifted towards the transaction.<sup>1011</sup>

Therefore, the parties' relationship and the transaction's disadvantage make diminished (undue) coercion relevant in English contract law.<sup>1012</sup> The claimant must prove that the transaction calls for an explanation.<sup>1013</sup> This expression is the reformulation of the manifest disadvantage in the speech of Lord Scarman in *National Westminster Bank plc v Morgan*.<sup>1014</sup> Lord Nicholls in *Etridge*<sup>1015</sup> noted that the expression generated confusion and stated that relying on the test identified in *Allcard v Skinner*<sup>1016</sup> was preferable, '[b]ut if the gift is so large as not to be reasonably accounted for on the ground of friendship, relationship, charity, or other ordinary motives on which ordinary men act, the burden is upon the donee to support the gift'.<sup>1017</sup>

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<sup>1004</sup> *ibid* 183.

<sup>1005</sup> *ibid* 170.

<sup>1006</sup> Chen-Wishart, *Contract law* (n 637) 341.

<sup>1007</sup> Beatson, Burrows and Cartwright (n 633); *Huguenin v Baseley* (1807) 14 Ves 273, 33 ER 526, 300 (Lord Eldon).

<sup>1008</sup> *Pesticcio v Huet* [2004] EWCA Civ 372, [2004] WTLR 699 [20] (Mummery LJ).

<sup>1009</sup> (n 786).

<sup>1010</sup> *Allcard* (n 996) 171 (Cotton LJ); *Barclays Bank Plc v O'Brien* [1994] 1 AC 180 (HL) 189–190 (Lord Browne-Wilkinson).

<sup>1011</sup> Beale (n 610) 10-080; *Hammond v Osborn* [2002] EWCA Civ 885, [2002] WTLR 1125; *Goodchild v Bradbury* [2006] EWCA Civ 1868, [2007] WTLR 463.

<sup>1012</sup> Beale (n 610) 10-080.

<sup>1013</sup> *Etridge* (n 786) [21]–[29] (Lord Nicholls); Beale (n 610) 10-084; Chen-Wishart, *Contract Law* (n 637) 344; Beatson, Burrows and Cartwright (n 633) 387.

<sup>1014</sup> [1985] AC 686 (HL).

<sup>1015</sup> (n 786).

<sup>1016</sup> (n 996).

<sup>1017</sup> *ibid* 85.

Lord Nicholls also cites Lord Macnaghten in *Bank of Montreal v Stuart*,<sup>1018</sup> who defined this concept as the act of being immoderate and irrational, expressing, in the end, the fundamental element to part an influence from an undue influence in a transaction that calls for explanation.

In the requirements for the proof of the actual undue influence, other elements can be found, which can clarify the challenging object of this doctrine. As expressed by Slade LJ in *Bank of Credit and Commerce International SA v Aboody*,<sup>1019</sup> the claimant in cases of actual undue influence shall prove that one party was capable of exercising influence over the other, that this influence was exercised, that it was undue and that it resulted in a transaction. Therefore, different actions can lead to undue influence. The first one is the exercise of duress or coercion.<sup>1020</sup> However, as considered above,<sup>1021</sup> this kind of conduct is now dealt with by the doctrine of duress, which focuses on illegitimate pressure. Undue influence can be found in excessive pressure,<sup>1022</sup> harassment,<sup>1023</sup> fear of confrontation,<sup>1024</sup> a threat to abandon,<sup>1025</sup> and moral blackmail.<sup>1026</sup> It is helpful to underline that, as expressed in *Bank of Montreal v Stuart*,<sup>1027</sup> undue influence has been considered present in cases of dominion and intimidation when the party has no will of their own and cannot form an independent judgment.<sup>1028</sup> Undue influence has also been considered present in cases of misrepresentation and non-disclosure, as stated in *Etridge*,<sup>1029</sup> and possibly present in the case of bribery.<sup>1030</sup> The House of Lords stated that the requirements of a manifest disadvantage or a transaction that calls for explanation are unnecessary for undue influence to be present when there is evidence of undue influence.<sup>1031</sup> However, these elements are considered evidence of an abuse of confidence,<sup>1032</sup> and some disadvantage in the transaction is required, such as an unwise transaction.<sup>1033</sup> It shall also be considered that the concept of undue influence, as clearly stated in *CIBC Mortgages Plc v Pitt*, is a 'species of fraud'.<sup>1034</sup> As fraud requires, there must be causation between the influence and the decision to enter into the transaction.<sup>1035</sup>

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<sup>1018</sup> [1911] AC 120 (PC) 137.

<sup>1019</sup> [1990] 1 QB 923 (CA) 967.

<sup>1020</sup> *Drew v Daniel* [2005] EWCA Civ 507, [2005] 2 FCR 365; Beale (n 610) 10-089.

<sup>1021</sup> See 7.1.4.

<sup>1022</sup> *Coldunell Ltd v Gallon* [1986] QB 1184 (CA).

<sup>1023</sup> *Clarke v Prus* [1995] NPC 41 (CH).

<sup>1024</sup> *Drew* (n 1020).

<sup>1025</sup> *Langton v Langton* [1995] 2 FLR 890 (CH).

<sup>1026</sup> *Bank of Scotland v Bennett* (1997) 1 FLR 801 (CH).

<sup>1027</sup> (n 1018).

<sup>1028</sup> *ibid* 136. See also *Thompson v Foy* [2009] EWHC 1076 (Ch), [2010] 1 P & CR 16 [101].

<sup>1029</sup> (n 786) 32 (Lord Nicholls).

<sup>1030</sup> *Libyan Investment Authority v Goldman Sachs International* [2016] EWHC 2530 (Ch) [165]–[168] (Rose J).

<sup>1031</sup> *CIBC Mortgages Plc* (n 1000); *Etridge* (n 786) 12, 156.

<sup>1032</sup> *Thompson* (n 1028) 99 (Lewison J).

<sup>1033</sup> *Liddle v Cree* [2011] EWHC 3294 (Ch) 86.

<sup>1034</sup> (n 1000) 209.

<sup>1035</sup> *UCB Corporate Services Ltd v Williams* [2002] EWCA Civ 555, [2002] 3 FCR 448.

As considered above, *Etridge* cancelled the distinction between presumed and actual undue influence. The presence of a relation of influence is not enough to consider an undue influence as existing. There must be a transaction that calls for explanation, an equitable wrong that must be proved.<sup>1036</sup> What can be presumed is the presence of an influence if the parties were in a certain kind of relationship at the time of the transaction. Relationships that have been analysed in case law are, for example, the relationship Lord Browne-Wilkinson considers in *Barclays Bank Plc v O'Brien* as Class 2A cases, such as solicitor and client or doctor and patient.<sup>1037</sup> Other cases are more complex and were referred to by Lord Browne-Wilkinson as Class 2B cases. However, as stated above, the decision in *Etridge* rendered the distinction doubtful in its existence. The presumption refers to the fact that one party influenced the other and not to the fact that the influence was undue. As referred to above, the transaction must call for an explanation.

The influence exercised is not required anymore to be a 'dominating influence'.<sup>1038</sup> As stated in *Goldsworthy v Brickell*, an influence will be considered enough.<sup>1039</sup> Relationships such as the one between a solicitor and a client,<sup>1040</sup> a parent and a child,<sup>1041</sup> a guardian and a ward,<sup>1042</sup> people engaged,<sup>1043</sup> doctor and patient<sup>1044</sup> and similar will give rise to a presumption of a relationship of influence. A relation of influence can also be proved outside the established categories mentioned.<sup>1045</sup> The existence of a relationship of trust can also be inferred from the transaction itself, which is too onerous.<sup>1046</sup> The same deduction can be found in cases of vulnerability.<sup>1047</sup>

However, the relationship alone will not be enough. There will always be the need for a transaction that calls for an explanation.<sup>1048</sup> As expressed by Lindley LJ in *Allcard v Skinner*,<sup>1049</sup> friendship, charity, or a relationship can be considered as motives for a transaction of a considerable amount that does not need to be explained. The parameter is that of an ordinary man and, therefore, an objective one. The burden of proof shifts on the defendant if a relation of influence and a transaction that calls for explanation are both present.<sup>1050</sup>

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<sup>1036</sup> See *Etridge* (n 786).

<sup>1037</sup> (n 1010) 189.

<sup>1038</sup> *National Westminster Bank v Morgan* (n 1014) 707 (Lord Scarman).

<sup>1039</sup> [1987] Ch 378 (CA) 404.

<sup>1040</sup> *Wintle v Nye* [1959] 1 WLR 284 (HL).

<sup>1041</sup> *Wright v Vanderplank* (1855) 2 Kay & J 1, 69 ER 669.

<sup>1042</sup> *Hylton v Hylton* (1754) 2 Ves Sen 547, 28 ER 349; *Taylor v Johnston* (1882) 19 Ch D 603 (Ch).

<sup>1043</sup> *Cobbett v Brock* (1855) 20 Beav 524, 52 ER 706; *Lovesy v Smith* (1880) 15 Ch D 655 (Ch); *Re Lloyds Bank Ltd* [1931] 1 Ch 289 (Ch).

<sup>1044</sup> *Mitchell v Homfray* (1881) 8 QBD 587 (CA); *Radcliffe v Price* (1902) 18 TLR 466 (HCJ).

<sup>1045</sup> *Huguenin* (n 1007) 286.

<sup>1046</sup> *Crédit Lyonnais Bank Nederland NV v Burch* [1997] 1 All ER 144 (CA).

<sup>1047</sup> *Malik (Deceased) v Shiekh* [2018] EWHC 973 (Ch), [2018] 4 WLR 86 [50].

<sup>1048</sup> *Smith v Kay* (1859) 7 HL Cas 750, 11 ER 299, 771; Beale (n 610) 10-114.

<sup>1049</sup> (n 996) 185.

<sup>1050</sup> *Turkey v Awadh* [2005] EWCA Civ 382, [2005] 2 FCR 7 [15].

The consequence of undue influence is that the contract is voidable and not void. However, there will always be the possibility of losing the right to rescind on the grounds of this doctrine for express affirmation, estoppel or by a delay that amounts to proof of acquiescence.<sup>1051</sup> As considered above, English contract law appears to be concerned with saving the contract more than making it void or voidable.

Therefore, as other doctrines previously considered, the doctrine of undue influence is linked to fraud, being one of its species. It is similar to and overlaps with duress and unconscionability. It protects consent, which can be impaired to an exceptional degree in a relationship of trust or similar, and attempts to preserve individuals from unreasonable bargains that call for explanation. Moreover, the doctrine prevents individuals from taking advantage of others, specifically if the advantage results from their wrongdoing, a concept already stated by the courts concerning the other doctrines examined before.

#### *7.1.5.1 Undue Influence and CM*

CM, specifically CM2, does not fall under the shield of undue influence. There are different reasons for this statement.

The first is that the user does not perceive its presence when AI/CM uses hypernudges to affect System 1. The absence of perception erases the possibility of identifying a non-perceived interaction as a relationship in the sense required by this doctrine, such as that of a solicitor with a client. The doctrine of undue influence requires a perceived interaction that results, for example, in excessive pressure, harassment, fear of confrontation, a threat to abandon, or moral blackmail.

The relationships in which undue influence has been found are, moreover, relationships between humans, such as a parent and a child or people engaged, in which the other party's knowledge and possible ways to influence them is a consequence of the relationship itself. Instead, AI/CM cannot exercise influence because of the relationship but because it acquires information on an unaware target without perception. In a relationship considered in the doctrine of undue influence, the consequence of acquiring information results from the relationship and trust. CM does not need a relationship or trust to acquire information on routes to System 1. It operates without perception and, consequently, differently from, for example, a parent with a child or a solicitor with a client.

If a relationship between an AI/CM system and a human were to be identified, another issue with this doctrine would occur. The doctrine requires a bargain that calls for an explanation. Consequently, this doctrine could protect individuals only in cases of CM where the value of the

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<sup>1051</sup> Beale (n 610) 10-132.



bargain is high, has extreme consequences, and, consequently, the party's behaviour can be qualified as immoderate and irrational. However, CM also operates (arguably more frequently) with everyday transactions. If CM results in the purchase of an object of modest value in a transaction that does not appear immoderate, individuals would have no protection from this doctrine. However, even transactions of modest value result from eroding the right to mental self-determination.

Therefore, as it has been considered regarding the previously analysed doctrines, undue influence does not adhere to CM's unprecedented computational and manipulative abilities.<sup>1052</sup>

### 7.1.6 Unconscionability

In order to contemplate if existing doctrines can protect individuals from CM, another doctrine must be considered. Equity intervened with the doctrine of unconscionable bargains to set aside an agreement made with an expectant heir<sup>1053</sup> or an improvident deal made with an ignorant person.<sup>1054</sup>

The object of the doctrine, however, is unclear. As considered in the previous sub-section, according to Bigwood, unconscionability looks at the same facts of undue influence but with a different perspective.<sup>1055</sup> Birks and Yin argued in favour of the vision that the distinction between the two is blurred, and while undue influence is concerned with the consent of the claimant, the doctrine of unconscionability is concerned with the wrongdoing of one party to the other.<sup>1056</sup> According to Phang, unconscionability can be extended to become an umbrella covering undue influence, economic duress and other forms of it.<sup>1057</sup> According to Capper, undue influence and unconscionability are sufficiently similar and can be merged into one.<sup>1058</sup> According to Bamforth, the term unconscionability has been used in contract law with different meanings, sometimes referring to it as a vitiating factor, other times as something to be avoided as an aim of public policy, and finally as an element of some doctrines, something that must be established regarding the facts of a case.<sup>1059</sup>

It seems that the courts need a combination of factors, as required by Blair J in *Strydom v Vendside Ltd*, 'One party has to have been disadvantaged in some relevant way as regards the other party, that other party must have been exploited that disadvantage in some morally culpable manner, and the resulting transaction must be overreaching and oppressive'.<sup>1060</sup>

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<sup>1052</sup> See also Hila Keren, 'Vast Scale Undue Influence' (2022) 5 Jotwell: J Things We Like 1, criticising Luguri and Strahilevitz (n 286).

<sup>1053</sup> *Earl of Aylesford v Morris* [1873] LR 8 Ch App 484 (Ch); SM Waddams, 'Unconscionability in Contracts' (1976) 39 MLR 369.

<sup>1054</sup> *Cresswell v Potter* [1978] 1 WLR 255 (Ch).

<sup>1055</sup> Bigwood (n 988) 503.

<sup>1056</sup> Yin and Birks (n 950) 59.

<sup>1057</sup> Andrew Phang, 'Undue Influence Methodology, Sources and Linkages' (1995) Nov JBL 552, 8.

<sup>1058</sup> David Capper, 'Undue Influence and Unconscionability: a Rationalisation' (1998) 114 LQR 479, 2.

<sup>1059</sup> Nicholas Bamforth, 'Unconscionability as a Vitiating Factor' (1995) LMCLQ 538.

<sup>1060</sup> [2009] EWHC 2130 (QB), [2009] 6 Costs LR 886 [36].

The first requirement is an operative bargaining impairment, placing one party at a severe disadvantage. The second is the morally culpable exploitation of the disadvantage by the other party. The resulting transaction shall then be manifestly improvident to one party.<sup>1061</sup> For example, a contract was set aside as unconscionable where an elderly man, ill and ‘intellectually not gifted’, sold his property for an inadequate consideration in undue haste and without independent advice (*Clark v Malpas*).<sup>1062</sup> The older cases emphasise the impaired consent of the ‘poor and ignorant’ (*Fry v Lane*).<sup>1063</sup> In these cases, there are references to particular circumstances, as described by Fullagar J in *Blomley v Ryan*, ‘(...) poverty or need of any kind, sickness, age, sex, infirmity of body or mind, drunkenness, illiteracy or lack of education, lack of assistance or explanation where assistance or explanation is necessary’.<sup>1064</sup>

The other element to be present is that of unconscionable conduct,<sup>1065</sup> which has been called by Bramforth an actual or constructive fraud.<sup>1066</sup> In *Boustany v Pigott*, Lord Templeman said:

Unequal bargaining power or objectively unreasonable terms provide no basis for equitable interference in the absence of unconscientious or extortionate abuse of power ... equity will not provide relief unless the beneficiary is guilty of unconscionable conduct ... namely that unconscientious advantage has been taken of his disabling condition or circumstances.<sup>1067</sup>

In *Alec Lobb v Total Oil*, Dillon LJ said that:

The courts would only interfere in exceptional cases where as a matter of common fairness it was not right that the strong should be allowed to push the weak to the wall. The concepts of unconscionable conduct and of the exercise by the stronger of coercive power are thus brought in.<sup>1068</sup>

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<sup>1061</sup> Beatson, Burrows and Cartwright (n 633) 398.

<sup>1062</sup> (1862) 4 De G F and J 401, 45 ER 1238. See also *Evans v Llewellyn* (1787) 1 Cox Eq Cas 333, 29 ER 1191.

<sup>1063</sup> [1888] 40 ChD 312 (Ch).

<sup>1064</sup> (1956) 99 CLR 362 [405].

<sup>1065</sup> Beatson, Burrows and Cartwright (n 633) 398.

<sup>1066</sup> Bamforth (n 1059) 548.

<sup>1067</sup> [1995] 69 P & CR 298 (PC Antigua and Barbuda) [41].

<sup>1068</sup> [1985] 1 All ER 303 (CA) [183].

The bargain, finally, must shock the court.<sup>1069</sup> Substantive unfairness, therefore, is the third relevant condition for applying this doctrine.<sup>1070</sup> The complainant, in some cases, shall then lack adequate independent advice.<sup>1071</sup> However, this element is not considered to be a requirement.<sup>1072</sup>

The doctrine, as it is apparent in the literature on the topic,<sup>1073</sup> overlaps with other previously analysed doctrines, even if it differs from duress (because it does not require the application of illegitimate pressure) and undue influence (because it does not require a relationship of influence between the parties).<sup>1074</sup> In considering this doctrine, the principle of inequality of bargaining power shall also be taken into account, which is controversial and lies with the judgment of Lord Denning in *Lloyds Bank v Bundy*.<sup>1075</sup> Even if the existence of such a doctrine has been disapproved, its principles have somehow been recognised in following judgments. In *National Westminster Bank v Morgan*,<sup>1076</sup> for example, Lord Scarman recognised the existence of equitable jurisdiction to grant relief against an unconscionable or unfair bargain.<sup>1077</sup> However, such a principle is far from being recognised, and cases of inequality of bargaining powers are considered to fall under different doctrines, such as duress, undue influence or unconscionable advantage-taking.<sup>1078</sup>

Therefore, even if such a doctrine has been put in doubt, some elements common to the previously analysed ones can be identified. Specifically, English contract law does not allow one party to take advantage of the other (with fraud or actions that are species of fraud), who is impaired in their judgment. However, as it happens for the doctrine of undue influence, not every bargain will be set aside, but one that is so unfair to shock the court.

#### 7.1.6.1 Unconscionability and CM

Notwithstanding what was stated above regarding the controversial existence of a doctrine of unconscionability, it shall now be considered if this doctrine might help to deal with PT's unprecedented manipulative abilities.

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<sup>1069</sup> *Alec Lobb Ltd v Total Oil (Great Britain) Ltd* [1983] 1 All ER 944 (CH) [94–95] (Peter Millett QC).

<sup>1070</sup> Beale (n 610) 10-165; Chen-Wishart, *Contract law* (n 637) 362.

<sup>1071</sup> Chen-Wishart, *Contract law* (n 637) 361.

<sup>1072</sup> *Crédit Lyonnais Bank Nederland NV v Burch* (n 1046).

<sup>1073</sup> Michael J Trebilcock, 'The Doctrine of Inequality of Bargaining Power: Post-Benthamite Economics in the House of Lords' (1976) 26 UTLJ 359; Bamforth (n 1059); Capper, *Duress, Undue Influence and Unconscionable Dealing* (n. 946); Capper, 'Undue Influence and Unconscionability: a Rationalisation' (n 1058); Robert W Clark, 'The Unconscionability Doctrine Viewed from an Irish Perspective' (1980) 31 NILQ 114; AH Angelo and EP Ellinger, 'Unconscionable Contracts: A Comparative Study of the Approaches in England, France, Germany, and the United States' (1991) 14 Loy LA Int'l & Comp LJ 455; Birks and Yin (n 950).

<sup>1074</sup> Chen-Wishart, *Contract Law* (n 637) 360.

<sup>1075</sup> [1975] QB 326 (CA).

<sup>1076</sup> (n 1014).

<sup>1077</sup> McKendrick (n 645) 328.

<sup>1078</sup> Beale (n 610) 10-181.

Imagine the following scenario. An individual, X, male, 45, has trouble sleeping. He searches on Google on the topic. He wears a smartwatch that monitors his habits. He posts on social media about his lack of sleep. X has always opposed pills and never used any medication in his life. He does not believe in doctors but relies on the public's opinion. He believes that the lack of sleep is a sign of strength. X has a baby. He speaks German as a first language and English as a second language at a proficiency level. In compliance with the data protection regulation, with corresponding privacy policies that X does not read but signs, his data are acquired by Z, a company that sells sleeping pills. Using CM, Z targets X and, through the data acquisition and the use of ML, identifies that X has consistently shown the willingness to buy when X's baby's safety is concerned. The AI identifies that the purchases happened after reading online reviews, if the solicitation to buy is in his second language, if the platform used has a simple interface, if it recognises his personal data and credit card details, rendering it easy to purchase, and if the colour of the interface is blue (the colour liked by his father), with relaxing music in the background. Z, through CM, targets X with real news concerning babies' injuries caused by the parents and, parallelly but not simultaneously, with news concerning sleeping deprivation accidents. The AI finds and shows X on social media actual posts, feeds and clips from movies on the same topic: people who fall happily asleep with the help of a pill and after sleeping are stronger and more vital. X starts researching the topic, and the AI shows results containing the word 'strong' on the first page. At that point, the AI shows X real news regarding accidents that occurred to babies related to the parents' lack of sleep. X opens the links, and the AI acquires the information. One day, X is affected by the lack of sleep, having slept three hours for several days in a row, and the smartwatch identifies it. The day after, X is about to go on a long trip by car with the baby, and he posts the information on social media. Z targets X with a personalised advertisement, which shows an actual commercial generated with a generative AI, which states that an individual is stronger if he sleeps and that a man has to be strong to protect his family. X follows the link and has access to a website shaped in blue, with a simple interface and relaxing music in the background, written in English. The site recognises the personal data of X and auto-fills, with express delivery in two hours. X buys the sleeping pills.

In this example, the purchase is the result of CM2, which covertly acquired big data on X, identified routes to System 1, interacted with the user and reconfigured the environment according to the cognitive profile of the target.

If one party is affected in their System 1 via a computational manipulative process, it can be stated that that party suffers from an operative bargaining impairment, being at a severe disadvantage. The other party has access to Big Data and profiling, can adapt and find heuristic routes to affect the

user constantly, and is, therefore, in a position of advantage. It can also be stated that the party using a PT is morally culpable for exploiting the user's disadvantage.

However, the hypothesis considered by the courts of a severe disadvantage appears different from this scenario. An individual affected by CM2 is not necessarily intellectually not gifted, poor or in need, sick, infirm, drunk, illiterate, lacking education or in need of assistance. An individual under CM2 is induced to reason through System 1, which they would also use in the absence of CM.<sup>1079</sup>

In any case, what can be lacking is also a resulting transaction manifestly improvident to one party.<sup>1080</sup> The manipulation results in an objectively fair transaction for a fair price, even if the individual is manipulated into it. It shall also be considered that independent advice can be present. However, the independent advice received might not be followed because the impact of CM on System 1 overcomes any possible reasoning with System 2 of the individual.

Therefore, as happened for the previously examined doctrines, CM2 does not entirely fall under the shield of this doctrine. Even considering the individual at a severe disadvantage, CM2 might fall under this doctrine if the transaction shocks the court. For this doctrine to protect individuals, the result of the transaction should be, for example, a manifestly disadvantageous deal for a house or unfair terms in a commercial transaction.

However, this doctrine allows the manipulation of individuals into everyday transactions, which have average and standard contract terms. Everyday transactions for average prices do not shock the court. Nonetheless, they erase the right to mental self-determination.<sup>1081</sup>

### 7.1.7 Incapacity

Chapter 6 considered how an agreement could be reached and how consent is expressed. This chapter considered which factors can impact consent: external factors such as false information, a relation of influence, pressure or similar elements. It has also been considered that a unilateral misperception of reality will not usually cause any consequence in English contract law if it is not shared with the other party or if the other party did not cause or take advantage of the circumstances.

It shall now be considered the possibility that an individual enters into a contract but cannot agree due to an objectively impaired mental state.<sup>1082</sup> The law protects those whose self-protective abilities are impaired to an unacceptable degree. This impairment, however, is balanced in English

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<sup>1079</sup> See Chapter 2.

<sup>1080</sup> Beatson, Burrows and Cartwright (n 633) 398.

<sup>1081</sup> Please consider that this scenario, like the one regarding the e-cigarette, is consumer-related. However, the same result would be obtained by substituting the object with, for example, an anti-cyber attack software purchased by the CEO of a company for the protection of the company they built.

<sup>1082</sup> Henry Goudy, 'Contracts by Lunatics' (1901) 17 LQR 145; Rankine Wilson, 'Lunacy in Relation to Contract, Tort, and Crime' (1902) 18 LQR 21; Mannie Brown, 'Can the Insane Contract?' (1933) 11 Canadian Bar Review 600; Gareth Spark, *Vitiating of Contracts: International Contractual Principles and English Law* (CUP 2013).

contract law with the interests of those who deal with an incapacitated party, as it happens with the previously examined doctrines. The circumstances discussed in this section are those of an individual incapable of giving valid consent. Sometimes, individuals could be physically and logically incapable of forming thoughts; therefore, the objective expression of those thoughts, in some occasions, is not considered valid by the law. Infancy, mental incapacity, or the expression of consent by those affected by drinking or drugs lead to an incapacity to form a thought.<sup>1083</sup>

These cases differ from the other cases of vitiated consent referred to above. Millet LJ, in *Barclays Bank Plc v Schwartz*,<sup>1084</sup> expresses the difference with the following words: ‘mental incapacity and drunkenness may not only deprive the sufferer from understanding the transaction, but also deprive him of the awareness that he does not understand it’.<sup>1085</sup>

An individual's understanding is considered in multiple doctrines and legislation, specifically regarding the consumers.<sup>1086</sup> Instead, when a question of mental capacity arises, the issue is not solely one of understanding but also of the impossibility of awareness regarding the lack of understanding. This statement is valid when an adult is involved. The law is, instead, more protective of minors. Minors can be the target of PT and CM. However, as a general principle, they are not bound by a contract they entered into, with some exceptions related to contracts beneficial to the minors, such as contracts for necessities and contracts to obtain an education, training, and medical care. As stated in *R v Oldham MBC Ex p Garlick*,<sup>1087</sup> the matter is one of understanding the transaction. Therefore, mental capacity does not relate to both awareness and understanding in the case of a minor. In the case of a drunken person, as stated in *Pitt v Smith*,<sup>1088</sup> the individual who enters into a contract has ‘no agreeing mind’.<sup>1089</sup>

Instead, in the case relevant to this analysis, that of a person who does not have mental capacity, English contract law has contrasting views. The issue of mental capacity and its consequences is related to Roman law, where the contract was void.<sup>1090</sup> However, English contract law showed opposite positions, according to which no one could be allowed to ‘stultify himself’.<sup>1091</sup>

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<sup>1083</sup> Beale (n 610) 11-001; Beatson, Burrows and Cartwright (n 633) 233. See also Law Commission *Law of Contract. Minors' Contracts* (Law Com N 134, 2007).

<sup>1084</sup> The Times, 2 August 1995 (CA).

<sup>1085</sup> Cited by LJ Stuart-Smith in *Hambros Bank Ltd v British Historic Buildings Trust* [1995] NPC 179 (CA).

<sup>1086</sup> See the UCPD, referred to in 4.3.2, received in the UK with the Consumer Protection from Unfair Trading Regulations 2008.

<sup>1087</sup> [1992] 1 FLR 645 (CA).

<sup>1088</sup> (1811) 3 Camp 33, 170 ER 1296.

<sup>1089</sup> *ibid* 34.

<sup>1090</sup> Sir Travers Twiss (ed), *Henrici de Bracton De Legibus et Consuetudinibus Angliae, Libri Quinque: in Varios Tractatus Distincti, ad Diversorum et Vetustissimorum Codicum Collationem, Ingenti Cura, Denuo Typus Vulgati* (Kraus Reprints 1964), Lib 3, tit 19 §8. See also Zimmermann (n 791).

<sup>1091</sup> *Molton v Camroux* (1848) 2 Ex 487, 154 ER 584, 500 (Pollock CB).

There is also a reference to a more balanced view, expressed in *Molton v Camroux*<sup>1092</sup> by Pollock CB in the necessary presence of incapacity to contract accompanied by the other party's knowledge of such incapacity. This balanced vision was confirmed in *Imperial Loan Co Ltd v Stone*,<sup>1093</sup> the leading authority in this field in English contract law.<sup>1094</sup>

In this view of the consequences of mental capacity, it is evident that English contract law intends to protect the appearance and what is objectively ascertainable. A minor or a drunken person might be easily detectable. A person lacking mental capacity might be more challenging to identify.<sup>1095</sup> It shall be underlined that the requirement of the knowledge of the mental impairment by the other contracting party has been the object of different views. For example, *Dunhill v Burgin*<sup>1096</sup> stated that the knowledge requirement extended to analysing what the counterparty 'ought to have known'.<sup>1097</sup> This view, however, is contrasted.<sup>1098</sup> It is apparent, in any case, that English contract law once again attempts to find a balance between what is objective, personal responsibility in entering a contract, what can be reasonably understood by the counterparty, the collective interest in assuring certainty in the bargain and a defect in forming consent via awareness and understanding.

In finding this balance, an individual's actual inner state of mind remains irrelevant to any possible extent, being non-objectively ascertainable. In the case of mental incapacity, undoubtedly, the common law protects the abstract ability to understand. Instead, English contract law is less interested in what an individual actually understands. This concept is expressed in *Fehily v Atkinson*: '(...) the question is whether the person had the *ability* to understand the transaction, not whether they actually understood it'.<sup>1099</sup>

In *Manches v Trimborn*, referred to in the previously mentioned case, Hallett J stated the same concept: 'the question in a case of this kind is not whether the consent was accompanied by reason or deliberation, but whether the person was capable of exercising the reason and deliberation necessary for a true consent'.<sup>1100</sup>

Therefore, what English contract law protects with mental capacity is not the actual exercise of an abstract mental capacity but the abstract possibility to exercise the ability to reason and deliberate. English Contract law recognises that reason and deliberation are necessary for consent.

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<sup>1092</sup> *ibid* 501.

<sup>1093</sup> [1892] 1 QB 599 (CA) 601 (Lord Esher MR).

<sup>1094</sup> Beatson, Burrows and Cartwright (n 633) 247; Peel (n 642) 10-055.

<sup>1095</sup> Burrows, *The Law of Restitution* (n 977), 315; Beale (n 610) 10-077.

<sup>1096</sup> [2014] UKSC 18, [2014] 1 WLR 933.

<sup>1097</sup> *ibid* 25 (Lady Hale).

<sup>1098</sup> Peel (n 642) 12-056; Beale (n 610) 11-079; Beatson, Burrows and Cartwright (n 633) 262.

<sup>1099</sup> [2016] EWHC 3069 (Ch), [2017] Bus LR 695 [81].

<sup>1100</sup> (1946) 115 LJKB 305 (KB).

However, English contract law relies on objectivity and leaves any inquiry into an individual's actual reasoning out of its scope. This view is coherent with other doctrines, such as unilateral mistakes.

It shall be underlined that the law also considers mental incapacity, drinking and drugs under the Mental Incapacity Act 2005. This act does not refer to the capacity to contract. However, as stated in the Mental Capacity Act, Code of Practice (2007) 4.32 and 4.33, a court can apply the test present in the Mental Capacity Act if it considers it appropriate. As stated in *Dunhill v Burgin*, mental capacity is not a general matter but refers to specific situations, and therefore ‘capacity is to be judged in relation to the decision or activity in question and not globally’.<sup>1101</sup> However, the courts cannot be considered free to apply the Mental Capacity Act to a contract.<sup>1102</sup>

According to The Mental Capacity Act 2005, s 1(2),<sup>1103</sup> ‘a person must be assumed to have capacity unless it is established that they lack capacity’. This lack of capacity is not a general disability but, according to the Act 2005, s 2(1), it is an inability to decide a particular matter at a specific time ‘because of permanent or temporary impairment of, or disturbance in the functioning of, the mind or brain’.

Specifically, the Act 2005 states in s3 that a person is unable to decide for himself if he is unable: ‘(a) to understand the information relevant to the decision; (b) to retain that information; (c) to use or weigh that information as part of the process of making the decision; or (d) to communicate his decision (whether by talking, using sign language, or any other means)’. As stated above, however, the other party has to be aware of this incapacity. Lord Esher MR established this principle in *Imperial Loan Co v Stone*.<sup>1104</sup>

It shall be underlined that the kind of mental incapacity described in the Mental Capacity Act is an objective, from a medical perspective identified, mental capacity, as clearly considered in the explanatory notes to the Mental Capacity Act, and specifically in note 22, where it is stated:

The inability to make a decision must be caused by an impairment of or disturbance in the functioning of the mind or brain. This is the so-called “diagnostic test”. This could cover a range of problems, such as psychiatric illness, learning disability, dementia, brain damage or even a toxic confusional state, as long as it has the necessary effect on the functioning of the mind or brain, causing the person to be unable to make the decision.

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<sup>1101</sup> (n 1096), [13] (Lady Hale).

<sup>1102</sup> *Kicks v Leigh* [2014] EWHC 3926 (Ch), [2015] 4 All ER 329 [64]; Beale (n 610) 11-093.

<sup>1103</sup> The law on mental (in)capacity was formerly contained in the Mental Health Act 1983, which follows the Mental Health Act 1959. The 2005 Act has abandoned old terms such as ‘lunatic’ or ‘person of unsound mind’ (Lunacy Act 1890), ‘mentally defective’, ‘idiot’, ‘imbecile’, or ‘feeble-minded person’ (Mental Deficiency Act 1913), and ‘mentally disordered patient’ (1959 and 1983 Acts).

<sup>1104</sup> (n 1093) 601; *York Glass Co Ltd v Jubb* (1925) 134 LT 36 (CA); *Hart v O'Connor* [1985] AC 1000 (PC New Zealand). See also Law Commission, *Mental Incapacity* (Law Com No 231, 1995) paras 3.5–3.6, 3.16–3.19.



As stated in s3, ‘a person is not to be regarded as unable to understand the information relevant to a decision if he can understand an explanation given to him in a way appropriate to his circumstances (using simple language, visual aids or any other means)’.

The consequence of a mental incapacity known by the counterparty is generally that the contract is voidable.<sup>1105</sup> *Sutton v Sutton*<sup>1106</sup> has contemplated the possibility for the contract to be void, stating that there are severe doubts in English contract law regarding the consequences of incapacity and confirming that English contract law attempts to avoid as much as possible the possibility for a contract to be void.

Therefore, it can be stated that English contract law protects the abstract ability to reason and deliberate, which impacts consent and is characterised by awareness and understanding, at least in an adult. However, mental incapacity should be counterbalanced by certainty in the transaction, with the necessary objectivity. Instead, English contract law considers the actual exercise of an abstract mental capacity irrelevant.

#### 7.1.7.1 Incapacity and CM

The lack of mental capacity could seem to be of relevance concerning PT. However, the kind of mental incapacity taken into account by this doctrine is a pre-existing, non-induced, objective, from a medical perspective identified, mental capacity.<sup>1107</sup> It is not a weakness that prevents understanding, immaturity, or absence of skills;<sup>1108</sup> what was called ‘unsoundness of mind’ in *Molton v Camroux* is necessary.<sup>1109</sup> The expression ‘unsoundness of mind’ is identical to that of a ‘person of unsound mind’ contained in the Lunacy Act 1890, the predecessor of the Mental Capacity Act. The Mental Capacity Act received the judicial view that incapacity is a medical condition, and the test for mental incapacity contained in it can be applied to a contract if a court considers it appropriate. As clearly stated in the explanatory notes to the Mental Capacity Act, specifically in note 22, mental incapacity consists of psychiatric illness, learning disability, dementia, brain damage or even a toxic confusional state. It is a medical condition that affects the functioning of the mind or brain, causing the person to be unable to decide from a medical perspective.

An individual under a computational manipulative process is not in this pathological condition. An individual reasons with System 1 and System 2. When CM is involved, the individual

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<sup>1105</sup> *Imperial Loan Co Ltd* (n 1093) 602–603; *Manches* (n 1100); *Gibbons v Wright* (1954) 91 CLR 423, 449; *Dunhill* (n 1096) 1, 25.

<sup>1106</sup> [2009] EWHC 2576 (Ch), [2010] WTLR 115 [46].

<sup>1107</sup> See, for example, *Jenkins v Morris* (1880) 14 Ch D 674 (CA) 681, which refers to a mental disease.

<sup>1108</sup> *Osmond v Fitzroy* (1731) 3 P Wms 129, 24 ER 997; *Lewis v Pead* (1789) 1 Ves Jr 19, 30 ER 210.

<sup>1109</sup> *ibid* 501.

reasons with System 1 but is not incapable of thinking from a pathological perspective.<sup>1110</sup> As stated in s3, a person is not to be regarded as unable to understand the information relevant to a decision if they can understand an explanation in a way appropriate to their circumstances (using simple language, visual aids or any other means). An individual victim of CM2 can understand and apply reason. They have no medical condition.

Therefore, the doctrine of incapacity and the Mental Capacity Act cannot protect against the unlawful and manipulative use of a PT aiming at affecting System 1. The general concept of mental capacity will be regarded from an objective perspective in common law as the abstract ability to think. In the examples of sleeping pills and e-cigarettes, the abstract ability to think exists from an objective perspective.

## **7.2 Consumers and CM**

Besides the doctrines described above, specific legislation concerning consumers should also be considered, which could be relevant regarding PT.<sup>1111</sup> When one of the parties involved is a consumer, it should be considered the Consumer Protection from Unfair Trading Regulations 2008 (CPRs), which implemented the Unfair Commercial Practices Directive (UCPD) into UK law. Specifically, Regulations 5, 6 and 7 of the CPRs should be considered regarding PT. These Regulations take into account misleading actions, omissions and aggressive commercial practices.

The content of the UCPD has already been considered in Chapter 4. The UCPD, and therefore the CPRs, cannot deal with the second kind of CM.<sup>1112</sup>

## **7.3 Some Final Considerations Regarding English Contract Law and CM**

As considered in the previous sections, the English contract law approach to vitiating factors is challenging. Multiple doctrines cover the same issue from different angles that overlap. During the 1800s, the courts borrowed concepts from civil law and mixed them with the common law tradition and approach, focusing on remedies. The result is a complex amalgam of rules in which a constant reference to consent is observable.

However, consent is not the sole element to which the courts refer. In the doctrines examined above, the courts also consider a sense of responsibility of the party, which should read and apply their mind, asking for information or clarification whenever needed and possible. It is also apparent that English contract law protects fairness. Existing doctrines will not allow a party to benefit from

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<sup>1110</sup> See Chapters 2 and 3.

<sup>1111</sup> Chen-Wishart, *Contract law* (n 637) 247.

<sup>1112</sup> It shall also be taken into account that, because of Brexit, the Guidance on the UCPD will not be applicable in England.

actions or omissions related or similar to fraud, which could be a fiction of fraud (as in non-fraudulent misrepresentation), species of fraud, pressure, undue influence or some other kind of unconscionable conduct.

Therefore, if, from one side, the concept of caveat emptor is a leading concept in English contract law for an adult with the mental capacity to think and apply their mind, from the other, unlawful conduct from one party who takes advantage of the circumstances will not be allowed. Typically, however, the relevance of unlawful conduct will be bound to an extreme action, such as giving false information, taking advantage of a unilateral mistake, or exercising excessive pressure, or to an extreme consequence, such as a bargain that calls for an explanation or shocks the court.

As considered above, existing doctrines and legislation contemplate CM that relies on false information and deception. However, existing doctrines and legislation in English contract law cannot deal with the second kind of CM, which covertly affects System 1 (CM2).<sup>1113</sup>

#### **7.4 Vitiating Factors in Italian Contract Law**

In order to proceed in the analysis and to scrutinise if existing contract law doctrines on vitiating factors could deal with CM2, it is relevant to investigate a civil law perspective. As underlined multiple times in the previous sections, according to Gordley and Ibbetson, English contract law borrowed concepts from civil law and the theory of the will.<sup>1114</sup> Therefore, it is worth considering the Italian contract law perspective, a civil law perspective on defective consent, an approach still based on the theory of the will and Roman law.<sup>1115</sup>

It has to be noticed that Italy is part of the EU and that the EU has considered CM in its legislation. As stated in Chapter 4, however, the EU approach to CM fails to protect against CM2. Indeed, the AIA, which is still a proposal, if adopted, will leave the actual protection against most, if not all, manipulative practices to other legislation, specifically the CRD, the DSA, and the UCPD.<sup>1116</sup> The CRD, as stated in Art. 1, is a contract law-related Directive in consumer protection and, therefore, leaves any transaction that does not involve a consumer out of its scope (for example, a transaction involving a professional or companies). The DSA, Art. 25 (2), leaves out of its scope practices protected under the UCPD.<sup>1117</sup> The UCPD refers to consumers and, according to Art. 3(2), is ‘without prejudice to contract law and, in particular, to the rules of validity, formation or effect of a contract’.

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<sup>1113</sup> See also Eliza Mik, 'Persuasive Technologies' (n 22).

<sup>1114</sup> Gordley (n 60); Ibbetson (n 628).

<sup>1115</sup> See generally on Italian Contract Law Pier Giuseppe Monateri, Filippo Andrea Chiaves and Mauro Balestrieri, *Contract Law in Italy* (Wolters Kluwer Law International 2021).

<sup>1116</sup> Mazzini and Scalzo (n 501) 24. See 4.3.3.1.2 for discussion and references regarding the CRD, the DSA and the UCPD.

<sup>1117</sup> See 4.3.3.1.1.1.

Therefore, in the end, in the mind of the EU legislator, contract law is the last and ultimate protection in what appears to be overlapping legislation against CM.

However, as considered in the following sections, no existing Italian doctrines can deal with CM2, leaving individuals without protection and affecting their right to mental self-determination.

#### 7.4.1 Good Faith

Before proceeding, it is worth noticing that the Italian system relies on a general underlying principle: the duty of good faith. The English legal system is, instead, traditionally hostile towards a principle of good faith, specifically in pre-contractual negotiation.<sup>1118</sup> The traditional hostility can be found in the decision of the House of Lords in *Walford v Miles*.<sup>1119</sup> Lord Ackner states that ‘the concept of a duty to carry on negotiations in good faith is inherently repugnant to the adversarial position of the parties when involved in negotiations’ and that ‘[e]ach party to the negotiations is entitled to pursue his (or her) own interest, so long as he avoids making misrepresentations’.<sup>1120</sup> However, as stated in *Interfoto Picture Library Ltd v Stiletto Visual Programmes Ltd*, ‘English law has, characteristically, committed itself to no such overriding principle but has developed piecemeal solutions in response to demonstrated problems of unfairness’.<sup>1121</sup>

While English contract law prefers to avoid a general principle of good faith, the Italian legal system expressly accepts it. This duty is based on the principle of social solidarity established by Art. 2 of the Italian Constitution, which imposes a duty of collaboration.<sup>1122</sup> The principle is relevant in contract negotiation (Art. 1337 Codice Civile), interpretation (Art. 1366 Codice Civile) and execution (Art. 1375 Codice Civile). The duty of good faith has the function of integrating the necessary incompleteness of the law.<sup>1123</sup> It imposes the duty to safeguard the other party's interest as much as possible.<sup>1124</sup> It consists of an obligation, for example, to share relevant information with the other party concerning the possible invalidity of the contract, its possible lack of effectiveness, or even its non-utility.<sup>1125</sup>

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<sup>1118</sup> On the absence of a general principle of good faith in English contract law, see Jack Beatson and others, *Good faith and fault in contract law* (Clarendon Press 1995); Chen-Wishart, Mindy, and Victoria Dixon, ‘Good Faith in English Contract Law: A Humble “3 by 4” Approach’, in Paul B Miller, and John Oberdiek (eds), *Oxford Studies in Private Law Theory*, vol 1 (Oxford Academic 2020).

<sup>1119</sup> [1992] 2 AC 128 (HL).

<sup>1120</sup> *ibid* 138.

<sup>1121</sup> [1989] QB 433 (CA) [439] (Bingham LJ). See also Chen-Wishart, *Contract Law* (n 637) 617.

<sup>1122</sup> Cassazione Civile Sezione II 18 febbraio 1986 n 960; Cassazione Civile 21 maggio 1973 n 1460.

<sup>1123</sup> Francesco Galgano, *Diritto Privato* (Padova 2013) 358.

<sup>1124</sup> C Massimo Bianca, *Diritto Civile. L’Obbligazione*, vol 4 (Giuffrè 1978) 86.

<sup>1125</sup> For example, Bianca refers to the case in which one party rents to another a van to move a specific kind of goods while knowing that the goods cannot be moved, Bianca, *L’Obbligazione* (n 1124) 165.

Regarding contract negotiation, violating the principle of good faith is relevant when the contract is not entered into because one party refuses, without a valid reason, to do so despite the ongoing negotiation.<sup>1126</sup> Moreover, according to Art. 1338 Codice Civile, good faith is relevant when the contract is entered into but invalid. For this principle to have relevance, the party who acted without good faith shall know the existence of a cause of invalidity, and the innocent party shall rely on the contract's assumed validity. According to the theory of the incomplete defects of consent, violating the principle of good faith in negotiation can bring liability and entitlement to damages even in a valid contract.<sup>1127</sup> The violation of the principle of good faith brings an action for damages, and if it happens during the contract performance, it can be qualified as a breach of contract. However, if the law does not state otherwise, it cannot bring about the invalidity of the contract.<sup>1128</sup> It is a form of responsibility under Art. 2043 Codice Civile, which states that any individual that causes damage to another shall give compensation for the damage they cause.<sup>1129</sup>

Good faith shall accompany the entire contract until its termination (Art. 1375 Codice Civile).<sup>1130</sup> According to the Corte di Cassazione, the principle of good faith during the contract performance shall be adapted to the single case, integrating the obligations that derive from a contract to balance the rights that derive from a contract with the interests of the other party.<sup>1131</sup> Violating the principle of good faith during the performance of the contract brings contractual liability.<sup>1132</sup>

Therefore, good faith is an underlying principle accompanying the contract from the negotiation to the termination. It consists of a general duty to look after the other party's interest, and it brings, as a consequence, the parties' liability for damages. Its violation might constitute a breach of contract. This principle shall be kept in mind during the following analysis, not consisting of a vitiating factor but being able to integrate existing vitiating factors.

## 7.4.2 Incapacity

As it will be apparent from the following analysis, the Italian contract law approach to defective consent is based on the theory of the will, the capacity of the parties and three concepts: mistake,

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<sup>1126</sup> Cassazione Civile 15 aprile 2016 n 7545.

<sup>1127</sup> On the theory of incomplete defects of consent, see: Manuela Mantovani, " *Vizi Incompleti*" del Contratto e Rimedio Risarcitorio (Giappichelli 1995); Paolo Gallo, 'Asimmetrie Informative e Doveri di Informazione' (2007) 5 Riv Dir Civ 641, 666; Cassazione Civile Sezione III 8 ottobre 2008 n 24795; Cassazione Civile Sezione I 29 settembre 2005 n 19024.

<sup>1128</sup> Cassazione Civile 19 dicembre 2007 nn 26724 and 26725.

<sup>1129</sup> Cassazione Civile Sezione I 30 agosto 1995 n 9157; Cassazione Civile Sezione III 7 febbraio 2006 n 2525.

<sup>1130</sup> Cassazione Civile Sezione II 29 agosto 2011 n 17716; Cassazione Civile Sezione II 29 agosto 2011 n 17716; Cassazione Civile Sezione I 22 gennaio 2009 n 1618; Cassazione Civile 25 novembre 2008 n 28056; Cassazione Civile Sezione I 6 agosto 2008 n 21250; Cassazione Civile Sezione I 27 ottobre 2006 n 23273.

<sup>1131</sup> Cassazione Civile Sezione III 10 novembre 2010 n 22819.

<sup>1132</sup> L Caringella Buffoni, *Manuale di Diritto Civile* (Roma 2009).

violence and dolus.<sup>1133</sup> These three concepts are identified in Art. 1427 Codice Civile and will be considered in their main aspects in the following sections.

The defects of consent do not stand alone but are considered under Italian contract law into a more general notion: that of a voidable contract.<sup>1134</sup> According to Italian contract law, the first cause of contract voidability is the parties' incapacity. Art. 1425 Codice Civile states that a contract is voidable if one party has no legal capacity to contract. Legal capacity is connected in Italian contract law primarily to age. According to Art. 2 Codice Civile, on the day of the 18th birthday, an individual acquires the legal capacity to act, which, in the Italian system, has the meaning of producing legal effects with their actions.<sup>1135</sup>

In some cases, however, an individual of legal age can partially lose the capacity to act. According to Art. 414 Codice Civile, an individual with a mental illness that renders them incapable of protecting their interests, is considered incapable of acting with legal effects and is interdicted from doing so. In these cases, based on a medical diagnosis, a court will designate a curator who will act in the name and on behalf of the party to protect them.<sup>1136</sup> The procedure is called 'interdizione'.<sup>1137</sup> Italian law contemplates hypotheses in which the mental illness affecting the individual is less grave, as in the case of prodigality, drunkenness or addiction to drugs that can cause economic damages to the relatives of the individual or in the case of blindness or deafness if the individual did not receive sufficient education (Art. 415 Codice Civile). There is then a residual hypothesis contemplated in Art. 404 Codice Civile, according to which an individual that, due to an illness or a physical or mental impairment, is unable, even partially or temporarily, to look after their interests, can be assisted by a support administrator appointed by the court.<sup>1138</sup>

The consequence of the mentioned mental incapacity, according to Art. 1425 Codice Civile, is that the contract is voidable. The same article states that a contract is voidable if the party, even if it possesses the legal capacity from a legal point of view, cannot understand and express the willingness ex Art. 428 Codice Civile.

Art. 428 Codice Civile considers a situation where the individual suffers from a cognitive defect. However, a court has not declared the cognitive defect as existing. The acts performed by a

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<sup>1133</sup> In Italian: errore, violenza e dolo.

<sup>1134</sup> Rodolfo Sacco, 'Voce Nullità e Annullabilità' in *Dig Disc Priv* 12 (Utet 1995); Marco Prosperetti, *Contributo alla teoria dell'annullabilità* (Giuffrè 1973); Franco Carresi, 'L'Annullabilità del Contratto' (1969) *Riv Trim Dir Proc Civ* 1436; Francesco Lucarelli, *Lesione D'interesse e Annullamento del Contratto* (Edizioni Scientifiche Italiane 2009).

<sup>1135</sup> There are cases, stated in the law, in which certain acts can produce legal effects for a minor, eg the case of labour law or emancipation for marriage (Art. 320 Codice Civile), in which the legal age can be inferior to 18 years.

<sup>1136</sup> Cassazione Civile Sezione I 30 agosto 2007 n.18322; Cassazione Civile Sezione I 13 marzo 1990 n 2031.

<sup>1137</sup> Interdizione means interdiction (own translation).

<sup>1138</sup> Cassazione Civile Sezione I 31 dicembre 2020 Ordinanza n 29981; Cassazione Civile Sezione II 4 marzo 2020 n 6079.

person who, although not interdicted ex Art. 414 Codice Civile, is proved to have been, for any reason, even temporary, incapable of understanding or wanting at the moment in which the acts were performed, can be declared voidable at the request of the person himself or of other subjects that might have interest if the act caused relevant damages to the individual. The article requires another element to be present when a contract is involved. The other party should be in bad faith,<sup>1139</sup> and the bad faith should be evident. The presence of bad faith can be inferred from the prejudice derived, or that may derive, to the person incapable of understanding or wanting or from the quality of the contract.<sup>1140</sup>

For the existence of a situation of incapacity to understand and want, according to Art. 428 Codice Civile, the total deprivation of the intellectual and volitional faculties is unnecessary. A psychological disturbance that prevents the formation of a conscious will is sufficient. According to the Italian Corte di Cassazione, the individual shall lose the capacity for self-determination and awareness due to mental disturbance.<sup>1141</sup> It shall be underlined that this article requires a prejudice in its first part. The prejudice, however, is not required in the case of a contract. In this case, the existence of prejudice is evidence of the bad faith of the counterparty.<sup>1142</sup> In any case, Art. 428 Codice Civile refers to a mental pathology.<sup>1143</sup> Therefore, diminished states of mind, such as anxiety or excessive affection, will not result in a voidable contract.<sup>1144</sup>

According to the content of Art. 1425 Codice Civile and related articles, voidability is a general remedy under Italian law. This remedy protects a party incapable of expressing full and aware consent due to incapacity, in the meaning expressed above, or due to a defect of consent such as mistake, violence or dolo, which will be considered further. The remedy, therefore, protects the interest of a party in an inferior position because of a mental condition or an individual situation.<sup>1145</sup>

In both cases, the consent is incomplete and not based on awareness. Italian law, therefore, gives the party the possibility to invalidate the contract or to maintain it.<sup>1146</sup> The contract will be valid, and it will produce effects. However, the effects of the contract will not be permanent. The situation differs from those considered under Art. 1418 Codice Civile, in which the contract is void. According to the mentioned Article, a contract is void if it is contrary to the law or lacks consent, the cause, the object, or the form required by the law. A contract is also void when its cause is unlawful, or when

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<sup>1139</sup> This is an example of the integration of the principle of good faith into other rules referred to in the previous section.

<sup>1140</sup> Cassazione Civile Sezione II 17 giugno 2021 n 17381.

<sup>1141</sup> Cassazione Civile Sezione Lavoro 21 novembre 2018 n 30126; Cassazione Civile Sezione II 30 maggio 2017 n 13659.

<sup>1142</sup> Cassazione Civile Sezione II 26 febbraio 2009 n 4677.

<sup>1143</sup> Cassazione Civile Sezione Lavoro 8 marzo 2005 n 4967.

<sup>1144</sup> Cassazione Civile Sezione Lavoro 25 ottobre 1997 n 10505.

<sup>1145</sup> Bianca, *Il contratto* (n 611) 642.

<sup>1146</sup> Contra, Cassazione Civile Sezione II 31 maggio 2022 n 17568, according to which a contract resulting from extortion is void.

the parties contracted for an unlawful motive that they share, or if the object of the contract is unlawful, impossible, indeterminate or undeterminable. Finally, according to the last paragraph of Art. 1418 c.c., the contract is void in any case in which the law states that it is.

This view of the contract and its invalidity, divided into the concepts of void and voidable, originates in the Pandects.<sup>1147</sup> The concept of voidability originated in the pretorian remedies in Roman law, even if Roman law did not consider the possibility of a voidable contract.<sup>1148</sup> The previous Italian Civil Code, dated 1865, did not distinguish between the concepts of void and voidable. The actual Civil Code, instead, considers the legal or natural incapacity of the parties and the defects of consent as causes for the contract to be voidable.<sup>1149</sup>

The defect of consent will be analysed in the following sections and linked to CM2 to consider if Italian contract law can deal with this second kind of CM. Before doing so, it will be considered if the general concept of incapacity, as described in this section, could be a protection against CM.

#### 7.4.2.1 *Incapacity and CM*

Under Italian contract law, the concept of mental capacity is straightforward. Besides the cases in which a minor, a drunken person, or a drug addict is involved, the law considers a contract voidable when the individual has a pathology identifiable in a mental medical condition that renders them incapable of understanding and expressing the will.

When CM is present, the individual is not in such a medical condition, as already expressed regarding incapacity in English contract law.<sup>1150</sup> Being affected in System 1 by a CM does not correspond to a mental pathology. As considered above, the abstract capacity to reason is present, even if affected by the AI finding and using shortcuts and cognitive biases to influence and shape the thoughts covertly. As considered in Chapter 2, an individual can reason with two decisional systems. One more primordial (System 1) operates instinctually and subconsciously, and a second (System 2), more rational, has access to more cognitive resources. The two systems concur in everyday decisions, and the presence of reasoning led by System 1 does not correspond to an illness, a pathology or similar concepts relevant to incapacity.

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<sup>1147</sup> Bernhard Windscheid, *Diritto delle Pandette*, vol 1 (Unione Tipografico Editrice 1902) 265; Bianca, *Il contratto* (n 611) 644. This concept is expressed by the brocardus 'Quod initio vitiosum est non potest tractu temporis convalescere' (That which is void from the beginning cannot become valid by lapse of time. Own translation). Dig. 50.17.29 (n 695).

<sup>1148</sup> Windscheid (n 1147).

<sup>1149</sup> There are in the Italian Codice Civile some other causes of voidability: for example, the contract concluded by the representor which is in conflict of interests with the representee or by one spouse without the consent of the other when they chose the communion of the goods.

<sup>1150</sup> See 7.1.7.1



Therefore, even if it theoretically protects an impaired state of mind, the concept of incapacity under Italian law does not consider the diminished state of mind resulting from CM2 or, more generally, from CM.

### 7.4.3 Mistake

Under Italian contract law, a mistake is definable as a false representation of the reality by one party regarding the contract or the assumptions on which the contract is entered into.<sup>1151</sup>

Italian contract law distinguishes between a mistake that impacts the formation of the will of the party ('errore vizio' or 'errore motivo'<sup>1152</sup> in the Italian language) and a mistake in the transmission of the will, correctly formed ('errore ostativo', in the Italian language). A second partition can be found between a mistake in the facts and one in the law.<sup>1153</sup>

A mistake in the facts is a mistake regarding the elements of the contract. It can be identified in the difference between the objective meaning of the contractual terms and the meaning that the party gives to the terms in their mind. The different meanings the party gives can result from ignorance of the reality or the meaning of the words or an incorrect declaration transmission.<sup>1154</sup> Therefore, to evaluate the presence of a mistake, the evaluation shall be preceded by the interpretation of the contract to understand its meaning according to the will of the parties and not solely to the literal meaning of the words used. This kind of error, called *in substantia*,<sup>1155</sup> can be exemplified in an individual who believes the object of the contract to be a golden ring while it is made of copper. The interpretation aims to understand if the mistake is in the buyer's mind or if the contract terms can be interpreted as if they refer to a golden ring. In the first hypothesis, we are in the presence of a mistake. In the second hypothesis, there is no mistake. The seller did not comply with the terms of the contract.<sup>1156</sup>

Similarly, an imperfection in the declaration is not enough to be considered a mistake in the declaration ('errore ostativo') if the will of the individual that made the statement is identifiable from the totality of the manifestation of the will. In this case, there is no difference between the objective

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<sup>1151</sup> Giacomo Venezian, *L'errore Ostativo* (Tip. Giachetti, figlio e c. 1904); Francesco Messineo, *Teoria Dell'errore Ostativo: Saggio di Diritto Privato e di Dottrina Generale del Diritto* (Athenaeum 1915); Angelo Verga, *Errore e Responsabilità nei Contratti* (Cedam 1941); Pietro Barcellona and Università di Catania. Facoltà di Giurisprudenza, *Profili della Teoria Dell'Errore nel Negozio Giuridico* (Giuffrè 1962); Vittorino Pietrobbon, *Errore, Volontà e Affidamento nel Negozio Giuridico* (Milani 1990); Giuseppe Trabucchi, *Manuale di Istituzioni di Diritto Civile* (44th edn, Cedam 2009).

<sup>1152</sup> Please note that 'motivo' in this context does not mean 'motive' but the origin of the mistake.

<sup>1153</sup> Bianca, *Il Contratto* (n 611) 645.

<sup>1154</sup> *ibid* 646.

<sup>1155</sup> 'In the essence'. Own translation.

<sup>1156</sup> It shall be noted that the approaches of Italian contract law and English contract law, in the example reported, are opposite.

meaning of the manifestation of the consent and the meaning that the individual who makes the declaration gives to the manifestation of consent.<sup>1157</sup>

A mistake shall have, according to Art. 1428 Codice Civile, two characteristics. It shall be 'essenziale' and 'riconoscibile'. 'Essenziale' means that the mistake shall be essential, vital, or crucial: it shall regard the very essence of the contract. 'Riconoscibile' means that it must be recognisable by the other contracting party.

Art. 1429 Codice Civile states that a mistake is essential if it regards:

- 1) The nature of the contract or the object of the contract;
- 2) The identification of the object of the obligation or one of the qualities of the object of the obligation that, according to common sense, shall be considered as determining the consent;
- 3) The identity or the qualities of the other party, if one or the other caused the party's expression of consent.
- 4) A mistake in the law when the mistake was the sole or the most relevant reason to contract.

From the wording of the article, a distinction is apparent. A mistake in the nature or the object of the contract is not required to have determined the consent. The mistake, in this case, regards the very nature of the contract. For example, a party can mistakenly think they are buying instead of renting. The mistake shall have an impact and a causal link with the expression of consent in the other hypothesis stated in Art. 1429 Codice Civile.

The mistake shall then be recognisable by the other party. As stated in Art. 1430 Codice Civile, a mistake is recognisable when, considering the content, the contract's circumstances or the contracting parties' quality, a person of ordinary diligence could have detected it. Therefore, the test is objective and does not require a special effort. Each party is asked to look for an evident mistake and to communicate it to the other party, following the principle of good faith.<sup>1158</sup> A recognisable mistake brings as a consequence that the contract is voidable even if it is not excusable.<sup>1159</sup> It has to be underlined that the existence of a mistake will render the contract voidable even if the other party did not know of the existence of the mistake, if it was possible, using ordinary diligence, to detect it.<sup>1160</sup>

The courts have considered that in the case of a common mistake, the requisite of the recognisability of the mistake is not necessary.<sup>1161</sup> Both parties are mistaken over the same content

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<sup>1157</sup> Bianca, *Il Contratto* (n 611) 646.

<sup>1158</sup> See 7.4.1.

<sup>1159</sup> Cassazione Civile 2 febbraio 1998 n 985.

<sup>1160</sup> Cassazione Civile 30 marzo 1979 n 1843.

<sup>1161</sup> Cassazione Civile 12 novembre 1979 n 5829.

when a common mistake occurs.<sup>1162</sup> In this case, there is no need to protect the other party. Both parties contributed to causing the mistake.<sup>1163</sup>

It shall be underlined that, under Italian law, a mistake in the motive is irrelevant.<sup>1164</sup> Under Italian contract law, the inner reasons that brought an individual to a contract and the aim a party intends to reach in contracting are irrelevant.<sup>1165</sup> Therefore, a mistake in the motive is irrelevant. However, a mistake in the law is relevant if it is the sole or the main reason for expressing consent. In this case, according to Art. 1429, n 4, Codice Civile, the contract will be voidable. It has been discussed if a mistake in the law could be relevant if it consists of a mistake in the motive.<sup>1166</sup> However, the thesis is incoherent with the general principles concerning the mistake and creates a disparity between a mistake in the facts and one in the law.<sup>1167</sup> Therefore, a mistake in the law could be relevant, for example, if a party mistakenly thinks they are obliged by the law to sign a contract. It will not be relevant if a party mistakenly thinks they will receive some fiscal benefits signing the contract.

Finally, Art. 1430 Codice Civile states that a mistake in the calculation, as it could happen with the price calculation, will not result in a voidable contract. However, it will allow rectification.

According to what was stated above, the doctrine of mistake under Italian law protects the party's consent, according to the general concept of the capacity of the party to understand and express their will. However, the relevance of the mistake must be counterbalanced by its relevance and the possibility for the other party to recognise it. Instead, the inner motive that brought a party to the contract is irrelevant.

#### 7.4.3.1 *Mistake and CM*

As considered before, in dealing with mistakes in English Contract law,<sup>1168</sup> the doctrine of mistake under Italian contract law cannot deal with CM. The doctrines of mistake in the two systems are significantly different. However, the conclusion regarding their ability to protect individuals from CM is identical.

A mistake under Italian law is a false representation of the reality by one party regarding the contract or the assumptions on which the contract is entered into. However, in the case of CM, there is no false representation of reality. The reality and the representation coincide. The individual under

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<sup>1162</sup> Bianca, *Il contratto* (n 611) 550; Pietrobon (n 1151) 520.

<sup>1163</sup> Cassazione Civile Sezione VI 15 dicembre 2011 n 26974.

<sup>1164</sup> It is relevant, however, in the case of a donation ex Art. 787 Codice Civile.

<sup>1165</sup> L Ricca, "Voce: "Motivi, a) Diritto privato"" in *Enciclopedia del Diritto*, Vol 28 (Giuffrè 1977).

<sup>1166</sup> Francesco Santoro-Passarelli, *Dottrine Generali del Diritto Civile* (Jovene 1954) 161.

<sup>1167</sup> Bianca, *Il Contratto* (n 611) 655.

<sup>1168</sup> See 7.1.2.3.

CM correctly represents in their mind the nature and object of the contract (for example, buying sleeping pills). They correctly identify the object of the obligation and its qualities (pay the price and receive the pills through express delivery). They correctly identify the qualities of the other party (the seller of the pills).

As already discussed regarding English contract law, it shall also be considered that if a mistake existed, it would have been willingly induced by the other party, and the doctrine of mistake in Italian law deals with self-induced mistakes. In Italian contract law, mistakes induced by the other party are considered in the *dolo* doctrine, which will be addressed in 7.4.5.

The party induced to contract with CM is not mistaken. The party knows what they are contracting about and understands the terms and conditions, the nature of the contract and its object. There is no fundamental mistake. The party knows what it is contracting for, even if the contract is hypernudged.

There is also no mistake in the identity that caused the contract. The fact that the other party uses an AI cannot be identified as a quality of the other party that determines consent as required by the Codice Civile. Using an AI is not a quality of a party, as it is not using the telephone, an email or a pen. The contracting party is not the AI, even if the contracting party uses an AI, and using an AI is not a quality of the other party.

Therefore, the doctrine of mistake under Italian law cannot deal with any form of CM.

#### **7.4.4 Violence**

According to Art. 1434 Codice Civile, the use of violence<sup>1169</sup> renders the contract voidable. Violence consists of a threat. The threat aims to force the other party to enter into a contract that is not wanted or to suffer its consequences.<sup>1170</sup> There was a distinction under Italian contract law between physical and moral violence. The first one erases the will. The second one impacts the will of the victim, who is forced to choose between evils, exercising, in this case, the will. The distinction, however, has been abandoned because both kinds of violence impact the will without erasing it.<sup>1171</sup> It can still be considered the hypothetical scenario in which the hand of one party is physically guided to sign the contract. However, in this case, the contract is non-existent for lack of an act attributable to the subject.<sup>1172</sup>

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<sup>1169</sup> Giovanni Battista Funaioli, *La Teoria della Violenza nei Negozi Giuridici* (Athenaeum 1927); Alberto Trabucchi, 'Violenza (Vizio della Volontà) (Diritto Vigente)' in Antonio Azara ed Ernesto Eula (eds), *Noviss Dig It*, vol 20 (Utet 1975); Giovanni D'Amico, 'Violenza, Diritto Privato' (1993) 46 *Enciclopedia del Diritto* 858.

<sup>1170</sup> Bianca, *Il Contratto* (n 611) 658.

<sup>1171</sup> Giovanni Criscuoli, 'Violenza Fisica e Violenza Morale' (1970) 1 *Rivista di Diritto Civile* 127.

<sup>1172</sup> Bianca, *Il Contratto* (n 611) 658.

According to Art. 1435 Codice Civile, the threat should be severe, and it should be represented to the victim an unfair and relevant negative consequence to the person or to their goods or the threat of a lawful action to achieve an unfair gain.

Severe means that the threat should be of such gravity to impact a reasonable person, according to Art. 1435 Codice Civile. The perspective, therefore, is objective. Because of the threat, the victim must fear that they or their goods will be exposed to an unfair and relevant negative consequence. In considering this impact on the victim's mind, Art. 1435 Codice Civile requires considering the age, gender, and general circumstances in which the victim was when the violence was perpetrated.<sup>1173</sup> Therefore, the mentioned requirements of the threat should be evaluated in every case according to the victim of the violence.

The consequence represented to the victim should be relevant compared to the object of the contract. Moreover, the consequence should be unfair. The threat can be addressed to the other party, their goods, or their spouse or close relatives, such as children or parents (Art. 1436 Codice Civile). However, if the threat is addressed to the relatives, the court should carefully evaluate the circumstances (Art. 1436 c2 Codice Civile).

According to Art. 1438 Codice Civile, the threat could consist of lawful action. In this case, the contract is voidable if the threat aims to achieve an unfair result. The result can be considered unfair when it is disproportionate and different from the ordinarily achievable result. An example is the threat to press charges in criminal proceedings to force the other party to sign a contract.<sup>1174</sup> An unfair result can be found in an unfair contract, in which the terms of the contract are imbalanced in favour of one of the parties.<sup>1175</sup>

Art. 1437 Codice Civile considers the possibility that one party is subject to the influence of the other from a psychological perspective. This position of psychological inferiority can be found in relationships inside the family, in the place of work, or in society. According to Art. 1437 Codice Civile, the contract, in this case, is valid and not voidable. However, Italian contract law considers the possibility that one party uses a silent threat to use the social position or the position of superiority to induce the other party to enter into a contract. A classic example is that of a member of a criminal organisation, such as the Mafia, who makes an offer that cannot be refused. The courts recognise this kind of moral intimidation as a kind of violence.<sup>1176</sup>

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<sup>1173</sup> The reference to the gender has been criticised. See Bianca, *Il Contratto* (n 611) 659.

<sup>1174</sup> Cassazione Civile 20 marzo 1976 n 1008.

<sup>1175</sup> Cassazione Civile 27 marzo 1979 n 1779.

<sup>1176</sup> Bianca, *Il Contratto* (n 611) 662; D'Amico (n 1169) 864.

It should finally be mentioned that the fear of a danger that does not result from a threat but of which the other party takes advantage is dealt with by Italian contract law with a different remedy, the remedy of rescission ex Art. 1448 Codice Civile.

Therefore, as in the case of mistake, the doctrine of violence protects consent and fairness of the bargain.

#### 7.4.4.1 Violence and CM

Even if the doctrine of violence differs from that of duress, the same conclusions already reached in section 7.1.4.1 can be applied to the doctrine of violence. This doctrine can be helpful when a PT uses coercion. For example, the software is programmed to stop functioning and impedes the opening or recovery of files if an upgrade is not bought. However, the concepts of coercion and manipulation differ. Coercion requires leaving an individual with no alternatives. Manipulation consists of covertly finding and using routes to System 1 of an individual.

Manipulation does not rely on threats, which is essential in Italian contract law for applying the doctrine of violence. In order to fall under the concept of violence, the threat should be severe, and one party should represent to the victim an unfair and relevant negative consequence to the person or to their goods or the threat of a lawful action to achieve an unfair gain.

CM does not rely on any of these circumstances. When CM is involved, there is no threat. Therefore, this doctrine cannot deal with CM in any form, including CM2.

#### 7.4.5 Dolo

Art. 1439 of the Italian Civil Code considers the relevance as a vitiating factor of the consent of 'dolo'.<sup>1177</sup> The abovementioned article states that if one party uses trickery of such a degree that, in their absence, the other party would not have entered into the contract, the contract is voidable. If a third party used the trickery, the contract is voidable if the party to the contract knew of their existence and took advantage of them.

This vitiating factor is called *dolo causam dans*.<sup>1178</sup> It shall be parted from a different kind of dolo, the *causam incident*,<sup>1179</sup> that does not influence the consent but impacts the content of the

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<sup>1177</sup> Ludwig Mitteis, *Römisches Privatrecht bis auf die Zeit Diokletians*, vol 1 (Duncker & Humblot 1908); A Gentili, 'Dolo', *Enciclopedia Giuridica Treccani*, vol 3 (Treccani 1983); Trabucchi, *Il dolo* (n 782); Rodolfo Sacco and Giorgio De Nova, *Trattato di Diritto Civile: Il Contratto* (Utet 1993); Bianca, *Il Contratto* (n 611); Mantovani (n 1127); Geri I Bigliuzzi and others, *Diritto Civile. Obbligazioni e Contratti* (Il Sistema Giuridico Italiano 1989) (n 611); L Bigliuzzi Geri and others, *Diritto Civile, Fatti e Atti Giuridici* (Utet 1989); Gallo, 'I vizi del Consenso' (n 782). For the origin of the concept of Dolo as deriving from Roman Law, see Palumbo (n 782).

<sup>1178</sup> 'That causes.' Own translation.

<sup>1179</sup> 'That influences.' Own translation.

contract that would have been entered into in any case, with different terms.<sup>1180</sup> The mentioned *causam incident dolo* does not result in the contract being voidable.

The concept of *dolo* finds its routes in Roman law and a description of its meaning in a citation from Ulpian: ‘*omnem calliditatem fallaciam machinationem ad circumveniendum fallendum decipiendum alterum adhibitam*’.<sup>1181</sup>

Therefore, *dolo* is a machination aimed at circumventing, misleading or deceiving a third party. It consists of an inducement via deception to enter into a contract. The result consists of the party entering into a contract they would not have entered into without *dolo*. The result of the inducement is a mistake, even if the elements of a mistake (Art. 1428 Codice Civile) shall not necessarily be present.<sup>1182</sup>

The inducement might happen in different ways. A false statement is contemplated if it impacts consent. The inducement might happen through silence or saying something true but omitting essential qualifications relevant to weigh the statement correctly, to be considered in the complexity of the circumstances and under an objective test.<sup>1183</sup> The deceit might happen with false information, with words, with conduct, directly or via third parties, or via hiding information that, if known, would have stopped the other party from entering into the contract.<sup>1184</sup> Puffery (referred to in Italian Law as *dolus bonus*) will not be considered relevant because it is considered harmless, being an average individual able to spot and recognise it.<sup>1185</sup>

It shall be noted that, under Italian law, the inducement of the other party’s consent could happen not solely via a false statement but also via the more general concepts of artifice or trickery, which are characterised by an intention in acting and precisely the intention to influence the consent of the victim via a misleading behaviour, resulting in deceit.<sup>1186</sup> The Corte di Cassazione has recently confirmed this notion with Ordinanza n. 25968/2021, in which it is stated that the central element of *dolo* is deception.<sup>1187</sup> According to Corte di Cassazione, the deception used shall be of such degree that, without it, the other party would not have consented to the conclusion of the contract. The

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<sup>1180</sup> This distinction comes from the Glossators, as stated in Biondo Biondi, *Scritti Giuridici* (Giuffrè 1965) and Bianca, *Il contratto* (n 611) 664.

<sup>1181</sup> Dig. IV III 1 2 (n 695). ‘Any craft, imposition, machination employed to overreach, delude, deceive, another.’ Own translation.

<sup>1182</sup> Bianca, *Il Contratto* (n 611) 664.

<sup>1183</sup> *ibid* 665; Trabucchi, *Il dolo* (n 782); Cassazione Civile Sezione II 22 ottobre 1974 n 3030; Cassazione Civile Sezione III 12 gennaio 1991 n 257; Cassazione Civile Sezione Lavoro 12 febbraio 2003 n 2104; Cassazione Civile Sezione II 5 febbraio 2007 n 2479; Cassazione Civile Sezione II 24 maggio 2018 n 13034.

<sup>1184</sup> Cassazione Civile 18 gennaio 1979 n 363.

<sup>1185</sup> Cassazione Civile Sezione II 10 settembre 2009 n 19559; Cassazione Civile Sezione I 1 aprile 1996 n 3001. The concept of *dolus bonus* in opposition to *dolus malus* is contained in Ulpian, Dig. 4.3.1.3. (n 695). See also Bianca, *Il Contratto* (n 611) 666.

<sup>1186</sup> *ibid* 665.

<sup>1187</sup> Cassazione Civile Sezione VI 24 settembre 2021 Ordinanza n. 25968.

deceptive party (*deceptor*) shall engender in the *deceptus* an altered representation of reality, causing an error to be considered essential in their volitional mechanism.

Therefore, it is not enough to psychologically influence the other party. Art. 1439 Codice Civile requires tricks, deception, or even simple lies that have a causal effect on the volitional determination of the counterparty, making that party perceive an altered reality and, therefore, impacting the consent.<sup>1188</sup> Therefore, what is relevant is a false or distorted representation of reality that impacts the counterparty's consent, inducing a mistake.

#### 7.4.5.1 *Dolo and CM*

As already considered regarding the doctrine of misrepresentation,<sup>1189</sup> multiple dark patterns that use deception, tricks, or open lies can fall under the doctrine of *dolo*. The concept of *dolo* is broader than misrepresentation and is not necessarily linked to false information. Therefore, every time a PT uses deception, lies or tricks, this doctrine will be applicable, and its range will cover more situations than misrepresentation. *Dolo* does not require false statements but will apply to any deceit and tricks, such as substituting at the last second the online button of 'I refuse' with the button of 'I accept', playing with the colours of the buttons in order to induce the mistaken perception that the 'I accept' button will always be green, and the 'I refuse' will always be red, and then switching the colours in some options, in order to make the user press the 'I accept' button by mistake. The first kind of CM, CM1, the one that relies on deception, will fall under the doctrine of *dolo*.

However, this doctrine will not cover the second kind of CM, CM2. Possible examples are the scenarios of sleeping pills and e-cigarettes. In the mentioned scenarios, no false or misleading information is given. No trick induces a mistake. The victim of CM2 is not mistaken. The victim has the information, and the information received is correct. The issue does not reside with the information given to the party. The issue resides with the information the seller has on the other party. The amount of information that solely an AI can collect and analyse brings exceptional knowledge on what can induce an individual to contract. The AI system then uses that knowledge to hypernudge a choice, adapting and shaping to use the user's cognitive biases. At the end of the process, the party is not mistaken and does not misapprehend the reality. At the end of the process, the party is convinced, even if manipulated.

The issue with CM2, therefore, does not reside with a species of fraud, with a trick that induces a mistake. The party does not perceive an altered reality. The party perceives reality through shortcuts to System 1. Consequently, the doctrine of *dolo* cannot cover CM2.

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<sup>1188</sup> Cassazione Civile Sezione VI 08 maggio 2018 n 11009; Cassazione Civile Sezione III 23 giugno 2015 n 12892.

<sup>1189</sup> See 7.1.1.4.



## 7.5 Consumers and CM under Italian Law

When one of the parties involved is a consumer, it shall be taken into account that Italy is part of the EU and, therefore, received the UCPD.

Specifically, the UCPD was received in Italy with the so-called Codice del Consumo (CdC).<sup>1190</sup>

Art. 20 CdC prohibits unfair commercial practices, defined as practices contrary to professional diligence and false or able to distort the economic behaviour of consumers significantly. Art. 20.4 CdC identifies as unfair the practices which are misleading (Art. 21, 22, 23) or aggressive (24, 25, 26). Art. 23 and Art. 26 identify some practices that are always considered unfair. Art. 19 2 a) CdC states that the Codice del Consumo is without prejudice to contract law, particularly to the rules of a contract's validity, formation or effect.

The Italian CdC reproduces the UCPD. The content of the UCPD has already been considered in Chapter 4. The UCPD, and therefore the CdC, cannot deal with the second kind of CM, as in the e-cigarette example.

## 7.6 Some final Considerations Regarding Italian Contract Law and CM

According to what was stated in the previous sections, it is apparent that Italian contract law is based on consent and the theory of the will. The parties, with the contract, express their agreement. As clearly stated in Art. 1325 Civil Code, the first requisite of a contract is consent, expressed in the Latin Brocard 'in idem placitum consensus'.<sup>1191</sup> Consent is considered by Italian contract law as an expression of the capacity of the parties. If the parties cannot express consent with awareness and understanding because of a mental condition, mistake, violence or dolo, the consequence will be a voidable contract.

As considered above, Italian contract law can deal with some forms of CM. If second-generation dark patterns operate with a deception that induces a mistake, which in Italian contract law is not limited to false information, the doctrine of dolo will be able to protect individuals. Similarly, CdC will be able to deal with some forms of CM, with the limits expressed in Chapter 4.

However, the e-cigarette or sleeping pills scenario, examples of CM2, will not fall under any provision in Italian contract law, leaving unprotected the right to mental self-determination.

The reason for the lack of protection will be considered in the next chapter, together with a possible solution.

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<sup>1190</sup> Decreto legislativo 6 settembre 2005 n 206.

<sup>1191</sup> ('Clear consent on the same point'. Own translation). See Cassazione Civile Sezione III 12 marzo 2013 n 6116.

# Chapter 8 How Contract Law Should Protect Individuals from CM

In the previous chapters, the notion of consent has been considered,<sup>1192</sup> as well as the doctrines related to its presence and those pertaining to its absence concerning PT,<sup>1193</sup> with a focus on CM. The analysis has been conducted in the English and Italian legal systems used as case studies.

The two systems are, in a general sense, significantly different from each other. However, concerning CM, they reach the same conclusion. Existing doctrines in English and Italian contract law can deal with PT when it relies on coercion or deception. However, existing doctrines in both systems cannot deal with CM of the second kind (CM2, which does not rely on deception). This chapter will underline the reasons for the mentioned inability and consider possible ways to protect the right to mental self-determination relying on consent and contract law.

Before proceeding, it is helpful to briefly underline some elements that emerged from the conducted analysis. Existing doctrines in English contract law focus mainly on the contract terms, giving no relevance to the mind of the parties and little relevance to the facts or to the road that brought the parties to the contract, objectively analysing and construing the contract.<sup>1194</sup> English contract law relies on the parties' responsibility and the principle of caveat emptor.<sup>1195</sup> However, the courts have shown their tendency not to allow an individual to take advantage of the other party through every conduct that can be considered fraud, a species of fraud,<sup>1196</sup> or a fiction of fraud.<sup>1197</sup> Moreover, conducts such as violence, excessive pressure and threats are not allowed in English contract law.<sup>1198</sup> Even in the absence of the mentioned conducts, existing doctrines evolved to protect individuals in some relationships from bargains that call for explanation and from contracts that can shock the courts.<sup>1199</sup> English contract law also protects a party in case of a difference between what the party wanted to sign and what was signed because of some exceptional circumstances.<sup>1200</sup> English contract law is characterised by overlapping doctrines, with a constant focus on remedies to allow protection to the weak in exceptional cases, protecting fairness. As stated in *Alec Lobb v Total Oil*, by Dillon LJ:

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<sup>1192</sup> See Chapter 6.

<sup>1193</sup> See Chapter 7.

<sup>1194</sup> See 6.3.1.3.

<sup>1195</sup> See 7.1.1.1.

<sup>1196</sup> See 7.1.5.

<sup>1197</sup> See 7.1.1.

<sup>1198</sup> See 7.1.4.

<sup>1199</sup> See 7.1.5 and 7.1.6.

<sup>1200</sup> See 7.1.3.

The courts would only interfere in exceptional cases where as a matter of common fairness it was not right that the strong should be allowed to push the weak to the wall. The concepts of unconscionable conduct and of the exercise by the stronger of coercive power are thus brought in.<sup>1201</sup>

As considered on multiple occasions during this analysis, existing doctrines borrowed concepts from civil law and referred to consent and the theory of the will to focus on remedies.<sup>1202</sup> The Italian legal system, part of a civil law tradition, still expresses the concepts borrowed and modified by the English legal system. Italian contract law is expressly anchored to consent and the theory of the will. Consent, in the theory of the will, is connected to the capacity of the parties.<sup>1203</sup> The parties, with the contract, express their agreement and their will. Every time an individual is incapable of understanding and expressing their will, the consent will be lacking, and with it, the grounds on which the contract itself is based. When the consent is limited or impaired, the consequence will be that the contract is voidable. When it is completely lacking, the contract will be void.<sup>1204</sup> The Italian system will not allow impaired consent caused by the other party with threats, violence or fraud, nor impaired consent based on a fundamental mistake induced or recognisable by the other party. However, the Italian legal system requires a party, with an objective standard, to apply their mind to the contract, to read, to acquire every possible information, to resist possible influences and to recognise the possible mistake of the other party.

Even if the two systems differ in their approach to the issues that might affect a contract, existing doctrines in both systems protect consent and the decision-making processes of individuals. However, the two systems also consider the individual's responsibility, requiring the parties to read, understand, apply their minds and avoid negligence. Objectivity is present in both systems. Every aspect of a contract that a reasonable person can reasonably understand will continue to exist to maintain certainty in contract law and avoid, as much as possible, stating that a contract is void. Consequently, the courts will be comfortable enforcing contracts where consent is formal, even if the voluntariness of the contracting parties is questionable.<sup>1205</sup>

As stated above, the objective test renders the possibility of dealing with CM challenging (in both systems).<sup>1206</sup> The need expressed by existing doctrines for an individual to apply their mind to

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<sup>1201</sup> (n 1068) 182.

<sup>1202</sup> See Chapter 6 and Chapter 7.

<sup>1203</sup> See 7.4.

<sup>1204</sup> *ibid.*

<sup>1205</sup> Oman (n 611) 217.

<sup>1206</sup> See 6.4.

the contract and to every element that can be read and understood, together with the rules expressed by both systems regarding the effects of a signature, render the challenge more difficult. There are possible scenarios in which existing doctrines regarding impaired consent will allow individuals to mitigate the consequences of unlawful persuasion even following the objective test and in the presence of a signature.<sup>1207</sup> However, some scenarios are more challenging and not entirely considered by existing doctrines. With the aim of dealing with the abovementioned scenarios, some contractual doctrines, such as unconscionability, are coming into existence in the English legal system.<sup>1208</sup> Some doctrines recognise that not every formally agreed contract is to be considered valid.<sup>1209</sup> However, even the new doctrines fail to consider every aspect of the legal issues connected to the use of AI for manipulation.

The two systems are different, and their approach is possibly incommensurable, notwithstanding the shared origin.<sup>1210</sup> Even if the two systems are so different, in both systems, used here as case studies of how a legal system can react to a given context, the second kind of CM, which can covertly affect System 1 (CM2), is not considered. The consequent lack of protection of individuals against CM2 exists even if, according to what was stated by different bodies referred to in Chapter 4, it should exist. Moreover, the lack of protection exists even if CM2 consists of one party taking advantage of the other, impaired decision-making processes induced by one party, and defective consent, all circumstances considered relevant under both systems.

The following section will identify some reasons for the mentioned lack of protection. After considering why both systems are unable to deal with CM2, this analysis will consider a possible way, based on consent and contract law principles present in both systems, to protect individuals from CM2.

## 8.1 CM and the Motive

The absence of protection against CM2 relies on one circumstance. CM2 operates through finding and hypernudging a motive to contract, which is usually irrelevant in both legal systems. A motive is an interest that a party aims to satisfy through the contract, but that is not incorporated in the contract

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<sup>1207</sup> See the scenarios considered in Leonhard, 'The Unbearable Lightness of Consent in Contract Law' (n 290) 68. See also the previous Chapter regarding the single doctrines and their relation to PT.

<sup>1208</sup> See 7.1.6.

<sup>1209</sup> Some have identified defects related to consent in the area of standard form contracts (see, for example, Trebilcock, *The limits of Freedom of Contract* n 613) and cyberspace contracts (see Margaret Jane Radin, 'Humans, Computers, and Binding Commitment' (2000) 75 *Indiana Law Journal* (Bloomington) 1125). An example can be found in the litigation arising out of the subprime mortgage crisis. See Federal Reserve History, 'Subprime Mortgage Crisis' <[www.federalreservehistory.org/essays/subprime-mortgage-crisis](http://www.federalreservehistory.org/essays/subprime-mortgage-crisis)> accessed 9 November 2023.

<sup>1210</sup> Glenn, 'Are Legal Traditions Incommensurable' (n 72); Baaij (n 72).

terms. It is a psychological impulse which is not reflected in the contract.<sup>1211</sup> The motive is the primary element on which CM2 relies.

As considered in the second chapter, an AI-driven persuasive system acquires Big Data regarding a user from different sources, analyses the data, and finds connections that are non-observable by a human being. The connections are then used by the system to create a cognitive profile of the user and specifically to find the cognitive biases of the user, the shortcuts to System 1. An AI-driven PT can observe and analyse the decision-making process of an individual.<sup>1212</sup> In simpler terms, an AI-driven PT acquires knowledge concerning how and based on which elements an individual decides. It shall be recalled that an individual can decide using different ways: System 1 or System 2.<sup>1213</sup> Contract law, which was developed before the two systems were identified in the literature,<sup>1214</sup> requiring the parties to apply their mind to the contract, seems to presume that an individual will be capable of reasoning with System 2, with awareness and understanding, while this might not always be true. An AI-driven manipulative system relies on what triggers System 1, on instinctual decisions. These kinds of decisions are not the result of applying the mind. As considered above, for some individuals, an instinctual decision can be based, for example, on what others do (social proof bias).<sup>1215</sup> Therefore, for those individuals, knowing that their friends did something might be decisive in entering into a contract following System 1. For other individuals, the likeability bias, such as the features of the person in front of them, or a mix of different cognitive biases might be the leverage to decide. Emotions and past experiences will also play a relevant role in the decision-making processes of any individual based on System 1. Individuals are different, and their decisional processes vary according to this difference. In the e-cigarette and sleeping pills scenarios, different cognitive biases play a role in hypernudging the buyer's decision.<sup>1216</sup>

In contractual terminology, the knowledge of the cognitive profile of the other party is the knowledge of the motive to contract. This knowledge does not correspond to *what* an individual decides to do: in the example of the e-cigarette, enter into a contract to buy the e-cigarette. This knowledge corresponds to *how* that specific individual reached that decision and *why* that individual entered the contract. The knowledge acquired has as an object the psychological impulse mentioned above. System 2 is not what CM2 is interested in. CM2 relies on routes to System 1. The AI system

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<sup>1211</sup> Bianca, *Il Contratto* (n 611) 461. See also R Guzzi, 'Voce: "Motivo del Negozio Giuridico"' in Antonio Azara ed Ernesto Eula (eds), *Noviss Dig It*, vol 10 (Utet 1957); Giommara Deiana, *Motivi nel Diritto Privato* (Edizioni Scientifiche Italiane 1980); 'Motivi' in *Enciclopedia Giuridica Treccani*, vol 20 (Treccani 1990); C Scognamiglio, 'Motivo (del Negozio Giuridico)', in *Digesto delle Discipline Privatistiche-Sez.Civile* (Utet 1994); Ricca, 'Motivi' (n 1165).

<sup>1212</sup> See Chapter 3.

<sup>1213</sup> See 3.1.1.

<sup>1214</sup> See 2.4.3.

<sup>1215</sup> See Chapter 3 for the cognitive biases and examples of nudges.

<sup>1216</sup> See 4.3.2.3.

can then hypernudge the decision, changing, shaping and adapting to the cognitive biases of the individual through interaction. The AI pulls the strings of the decision-making processes until the target is achieved, unperceived, on the road to the contract.

If, with all the limits stated in the previous chapter, existing doctrines in the English and the Italian systems will take into account the terms of the contract and what is objectively ascertainable regarding them (the e-cigarette or the pills, the price, warranties and other similar elements), the road that brought the parties to the contract is generally left to the parties. Existing doctrines are reluctant to consider the facts surrounding the formation of a contract and hostile towards investigating the actual mind of an individual and the psychological impulse. The internal reasons that brought a party to the contract are irrelevant under English and Italian contract law. Any investigation on the inner mental road that brings to an agreement is precluded. As stated in *Chartbrook*, a ‘contract is not about what is in people’s heads’.<sup>1217</sup>

When a signature, which might consist of a click, is present, the preclusion regarding the investigation of why and how the consent was reached is even stronger. An individual will lose the possibility of their mental state being investigated by clicking the ‘I agree’ button in the data acquisition phase. Any chance of investigation will be lost with the final agreement, specifically if made online with a click. Under an objective test, what will be observable is an individual who declared they understood the information received, even if they did not, and clicked the button. What happened in their mind, the actual mental road to consent, will not be scrutinised. It attains to the motive, and the motive is irrelevant.

However, that road is the legal challenge in dealing with CM. When a person buys a product or generally makes a decision, it has already been asked how much of that decision depends on the person and how much, for example, on the commercials that person has been seeing.<sup>1218</sup> This question has been considered in adopting, for example, the EU Audiovisual Media Services Directive,<sup>1219</sup> which states rules regarding the use of commercials.

Regarding the purpose of this analysis, how much of that decision depends on cognitive biases and the hypernudge should be asked. What is different between a usual manipulation and a CM should be asked. Underlying this difference will allow stating why the motive, usually irrelevant in a contract, should become relevant when CM2 is involved in the process.

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<sup>1217</sup> (n 649) 1109.

<sup>1218</sup> Oren Bar-Gill, 'The Law, Economics and Psychology of Subprime Mortgage Contracts' (2009) 94 Cornell LR 1073.

<sup>1219</sup> Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) [2010] OJ L95/1.

### 8.1.1 Human-to-human and AI-to-human Interactions. The Issue of Computational Power and Perception

How a hypernudge operates is highly different from any other manipulative mechanism considered before in contract law.

As considered above, humans and an AI-driven persuasive system have similar abilities.<sup>1220</sup> As with an AI, a human can find a motive to contract and nudge it, even adapting to the counterparty; mirroring their language and posture, for example. A human being can acquire knowledge of the cognitive biases of an individual. A human being can know what might motivate individuals and play on emotions considering the population in general, at a segmentation level, or an individual level.<sup>1221</sup>

However, the power of AI concerning the same actions is unprecedented and requires legal attention. As considered by Mik:

(...) it is not persuasive technologies per se that warrant legal attention. It is the combination of technology and personal information that creates unprecedented capabilities on the side of internet companies and unprecedented weaknesses on the side of internet users.<sup>1222</sup>

A human seller can know that showing a picture of a baby will impact the decision-making processes of a part of the population. An AI-driven system can know that a specific individual is pregnant before their own family<sup>1223</sup> and their emotions about it from their posts on social media, for example, or from the entire online interaction of the target. An AI-driven system can know how many times showing a picture of a baby brought that individual to purchase a product advertised with a picture of a baby and which other circumstances were present when the purchase was made. An AI-driven system can tirelessly and covertly acquire information and adapt to the modified cognitive profile of the user, tirelessly and covertly attempting to persuade, changing the variables until the target is reached. Therefore, AI and humans can do the same actions but with different power and consequent level of accuracy. The issue of contract law in dealing with CM2 resides with this different power.

In order to better identify the issue, it is helpful to underline that acquiring information on the other party's cognitive biases and preferences through interaction, finding a motive, adapting to the other party's possible biases, and attempting to create a desire in the other party are actions normally admissible in contract law. However, in a human-to-human interaction, the parties usually perceive

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<sup>1220</sup> See 4.2.

<sup>1221</sup> See 3.2.2.

<sup>1222</sup> Mik, 'Persuasive Technologies' (n 22) 363.

<sup>1223</sup> Hill (n 24).

the actions mentioned above because they are aware of an ongoing interaction. The perceived interaction limits the knowledge that the other party can acquire. It should also be considered that the human mind is limited in finding connections and creating a cognitive profile of the other party, specifically in real-time. In human-to-human interaction, one party's possible knowledge regarding the other party's cognitive profile and how that party will react in the interaction is based on a guess in a game of perceived questions and answers during the perceived interaction. If we imagine a typical human-to-human scenario in an open market, the *forum* scenario in which Roman law developed the concept of caveat emptor, each party will first perceive the other party's presence. In order to find and use routes for manipulation, a seller needs knowledge regarding the cognitive biases and the cognitive filters of the other party. This process requires time and collaboration from the other party. The other party, the potential buyer, will have to answer questions. The questions asked to know how a person reasons and what motivates them to contract using System 1 will be perceived. Elevating some cognitive defence will be possible, as considered by the EISMEA,<sup>1224</sup> referring to the 'Persuasion Knowledge Model' or PKM.<sup>1225</sup> If the seller asks the buyer personal questions, such as questions regarding their relationship with their father, to find cognitive biases and routes to System 1, further questions will not be generally allowed. It will be their responsibility if the individual answers a stranger's personal questions. It shall also be considered that the seller cannot usually acquire knowledge regarding the buyer's personal information before meeting them in an open market. If we imagine an individual who goes to the open market and finds an unknown seller who already has knowledge regarding their personal information, such as where they live, the names of their children, the issues they have with their father, and their way of dealing with compulsive shopping, awareness will rise exponentially. There would be the perception that the seller knows too much information. Therefore, in the forum scenario, if the interaction becomes too personal, individuals will be able to perceive the existence of the interaction and allow it or refrain from it. The described mechanism renders the relationship between a seller and the buyer potentially fair. The right to mental self-determination will likely be preserved. System 2 will likely be engaged. The mechanism can be imbalanced by severe circumstances which could impact consent. However, an individual will have the possibility to be aware of the attempt to be persuaded and will have the abstract possibility to activate at least cognitive defences. Doctrines on defective consent, together with the legislation on consumers if applicable, will counterbalance the use of fraud, fictions of fraud, species of fraud, duress or aggressive commercial practices. As considered in the previous chapter, each doctrine will require one party to apply their mind and defend themselves to any possible extent. The doctrines

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<sup>1224</sup> See 3.2.1.

<sup>1225</sup> *ibid.*



require the application of the mind because applying the mind is possible in a human-to-human scenario with the awareness of the interaction.

If a seller, during the interaction, can find a potential motive for the buyer to enter into a contract, that motive will then be used for nudging. The motive to contract might also be reinforced through commercials. The element of perception is also relevant and present in this case. The commercials should be perceived, as clearly stated, for example, in the Audiovisual Media Services Directive, Art. 9, according to which surreptitious product placement should be prohibited.<sup>1226</sup> Therefore, the perception of the interaction in finding and pushing a motive is an already recognised crucial element in a human-to-human scenario.<sup>1227</sup>

The interaction between humans and AI consists of a completely different scenario in which perception is lacking, and so it is the abstract possibility to apply the mind. The abovementioned questions, which preserve the perception and, therefore, the awareness of the interaction, are no longer needed when CM2 is involved. The absence of perception causes existing doctrines and principles in contract law, such as the objective test, to act against a party, not in their favour and for their protection, as will be discussed in the following section.

#### *8.1.1.1 The Absence of Perception in CM2*

The individual will start losing perception of the interaction by signing a privacy policy. From that moment, existing contract law doctrines will play a role against the user and in favour of the erosion of the right to mental self-determination.

Imagining a sterile environment, an individual will use, for the first time, a computer or a smartphone: a device. The individual cannot use the device without registering or sharing personal data. There would always be the choice of not using a device. The price, however, will be the impossibility of having any form of modern communication. Therefore, not registering is an option but not a feasible option. It is a choice between evils. Any software on the device will require the individual to share their data. After the first data sharing, others will come regarding Office, emails, WhatsApp, YouTube, Google, and all the other services individuals use daily.

All the mentioned privacy policies will not be so specific to declare in clear and straightforward terms that the data will be used to profile the user in their cognitive biases and to hypernudge them or sell them to third parties for a possibly manipulative purpose. The privacy policies will more likely state that the data are used for behavioural profiling and personalisation to

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<sup>1226</sup> Audio Media Services Directive.

<sup>1227</sup> The evolution of the contracts from a human-to-human scenario to a company-to-human scenario did not change the limits of a human in acquiring knowledge regarding the other party's cognitive profile, nor it changed the perception of the interaction.

tailor the experience to the individual and that the analysis results can be used to propose goods or services to the users. This last formulation of the sentence is a GDPR-compliant statement, which does not correspond to the potential of an AI with the data in a manipulative process. However, it is a true statement.

In any case, even if the privacy policies were so clear to allow an individual to understand most of their content concerning persuasion and possible blurred lines of persuasion, it is unlikely that they will be completely understood without the help of different experts in different fields, such as law and psychology. The GDPR does not require examples of what can happen using a cognitive profile, nor does it require explaining a cognitive bias. Moreover, the GDPR does not require the subject that acquires data to verify if the information given has been understood.<sup>1228</sup>

It shall also be considered that the privacy policies are not likely to be read.<sup>1229</sup> However, they can theoretically be read, and it is theoretically possible for an average person to understand them. According to the general principle underlying all the doctrines examined above, individuals are responsible for applying their minds to what they sign. They are supposed to read. If they do not, the objective test will prevail. The individuals will be treated as if they read and understood, even if they did not, and even if it would be impossible to read every privacy policy in every daily online interaction.<sup>1230</sup>

Once the individual is online, the loop of CM will persist. New privacy policies and new service agreements will be hypernudged for the user. Tests such as ‘What animal are you?’<sup>1231</sup> on social media will allow the collection of more cognitive data, which might be used for refining cognitive profiles.

It shall be underlined that, up to this moment, no product has been sold, and no bargaining has begun. Up to this moment, it has been solely profiling. Contract law and the doctrines on the absence of consent cannot play any role. Up to this moment, the motives of individuals are identified, and this is not prohibited. The individual expressed their consent to the identification. Most likely, the consent

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<sup>1228</sup> On GDPR and Dark Patterns, see MR Leiser, 'Dark patterns: The Case for Regulatory Pluralism Between the European Unions Consumer and Data Protection Regimes' in Eleni Kosta, Ronald Leenes, and Irene Kamara (eds), *Research Handbook on EU Data Protection Law* (Edward Elgar Publishing 2022); Lars Hornuf and Sonja Mangold, 'Digital Dark Nudges' in Lars Hornuf (ed), *Diginomics Research Perspectives: The Role of Digitalization in Business and Society* (Springer 2022); Michael Toth, Nataliia Bielova and Vincent Roca, 'On Dark Patterns and Manipulation of Website Publishers' (2022) Proceedings on Privacy Enhancing Technologies 478; Mario Martini and Christian Drews, 'Making Choice Meaningful—Tackling Dark Patterns in Cookie and Consent Banners through European Data Privacy Law' (2022) SSRN <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4257979](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4257979)> accessed 8 November 2023; Luiza Jarovsky, 'Dark Patterns in Personal Data Collection: Definition, Taxonomy and Lawfulness' (2022) SSRN Electronic Journal <<https://doi.org/10.2139/ssrn.4048582>> accessed 8 November 2023.

<sup>1229</sup> See 4.3.1.

<sup>1230</sup> *ibid.*

<sup>1231</sup> Facebook 'What Animal are you' <[www.facebook.com/1072039129479100/posts/what-animal-are-you/1095122007170812/](https://www.facebook.com/1072039129479100/posts/what-animal-are-you/1095122007170812/)> accessed 9 November 2023.

expressed would be formal. However, in the eye of the law, the consent expressed is valid consent under an objective test and is GDPR compliant. Therefore, the data is legitimately acquired under the GDPR, and legitimate are the profiling and the following interaction that refines the profile. It will be lawful to draw a cognitive profile of the user. From an objective perspective, there will be consent.<sup>1232</sup>

The expressed consent will allow the subsequent CM. Routes to affect System 1 will be found. These routes will lead to the motive, which is irrelevant in contract law. The motive will be used for the hypernudge. New information will be given to the user at the right time and in the right way according to their cognitive profile and cognitive biases. The AI system will tirelessly acquire information through interaction, change shape and architecture, and trap the individual in an information bubble. The entire mechanism is pre-contractual.

The AI system, finally, will intervene at the right moment, basing its action on the superior knowledge acquired, as in the example of the e-cigarette. The result is not necessarily a contract that calls for an explanation. The result can be an everyday transaction; for example, for an e-cigarette. Nonetheless, the desire for the e-cigarette and the purchase of the e-cigarette are hypernudged. The purchase of the e-cigarette is the result of dismantling in a tireless effort the cognitive ability of the individual, hypernudged out of their mental self-determination. However, from a contract law perspective, what will be observable is an average transaction preceded by the party's consent to a personalised experience. The contract will be objectively valid, and contract law will favour CM2 against the individual.

Therefore, a mechanism that an individual could stop in human-to-human interaction, perceiving the questions and acting following the principle of caveat emptor, is not identifiable when CM2 is involved. The individual will not perceive the interaction and the questions that allow the knowledge regarding their motive. The individual, while profiled, will not even perceive a possible bargain.

#### *8.1.1.2 The Relevance of Computational Power in Identifying the Motive*

Therefore, the data is acquired and linked in the CM world without the questions that a seller would ask. When the interaction is transparent (in the meaning of non-perceivable), the possibility of having a defence mechanism is meagre.

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<sup>1232</sup> Mik, 'Persuasive Technologies' (n 22); Eliza Mik and others, 'Engineering Consent: Using Technology to Create Informed Consumers' in Marcelo Corrales Compagnucci, Helena Haapio, and Mark Fenwick (eds), *Research Handbook on Contract Design* (Edward Elgar Publishing 2022).

It shall also be considered that the quantity of information an AI can acquire regarding the possible motive of an individual is non-comparable to the quantity of information acquirable in human-to-human interaction. Moreover, the level of profiling is extremely more accurate than the level of profiling reachable in an interaction in an open market. The AI-driven system will know more about the individual than the individual.<sup>1233</sup> Finally, the AI can continuously adapt and shape with computational power according to the user's profile.

The open market scenario, therefore, in CM2 becomes a scenario in which the seller knows and hypernudges the motive of the buyer, brings the buyer to the market, knows the user's cognitive profile before contracting, and can adapt the appearance of the market according to the cognitive profile of the user. Every described event occurs without perception and with unprecedented computational power.

### **8.1.2 CM2 is Lost in the Motive**

According to what was stated in the previous sections, the difference between in-person, human-based contracting and the described use of manipulation via hypernudge relies on the unprecedented computational power in the data acquisition, data analysis and nudging, the invisibility and the consequent unprecedented abilities that a human being could never have, as already discussed at an international, EU and local levels.<sup>1234</sup>

The element not considered before in the existing discussion regarding PT is that the mentioned unprecedented abilities can create a motive to enter into a contract and manipulate the road that brings to consent and, therefore, consent itself. The contract is the last step on a long, hypernudged road that affects the right to create a thought. The question of how much of the decision comes from the hypernudge should be asked. However, it will not. The hypernudge, the road that brought an individual to contract, will be lost in the motive and, therefore, will not be investigated.

In English and Italian contract law, existing doctrines can deal with deviation from consent resulting from interactions with an AI similar to human-to-human interaction. Instead, existing doctrines cannot deal with the use of CM2 because an AI-driven PT can find and hypernudge a motive to contract, and the motive is not reflected in contract terms. The motive comprises complex pre-contractual decision-making processes characterised by the absence of a medical pathology of the mind. Its irrelevance in contract law lies with the notion of *caveat emptor*, with the sense of responsibility of the parties, with the freedom of contract, with the necessity not to infantilise the parties and with the presumption that an individual in their sane mind is required to apply their mind

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<sup>1233</sup> Mik, 'Persuasive Technologies' (n 22) 370.

<sup>1234</sup> See 4.2.

to the road that brings to a contract. In considering the motive irrelevant, contract law also seems to presume that an individual can reason with System 2 alone. Contract law was developed before the theories on the two systems. As considered in the previous chapter, contract law requires individuals to apply their minds to the contract, implicitly assuming that individuals will be able to apply reason to their actions by evaluating all the information received through System 2. However, CM operates on the motive and impacts the right to mental self-determination, affecting System 1 and not System 2. CM2 relies on a form of decision-making that is not the result of the application of the mind as intended by existing doctrines but on heuristic ways of reasoning. Therefore, when a CM/AI does not use false information, deception, or pressure and does not induce a mistake but uses knowledge and adaptation to find and hypernudge a motive, no existing doctrine will apply, neither in English nor Italian contract law. The right to create a thought, identified above in the right to mental self-determination,<sup>1235</sup> will be lawfully affected and obliterated by a CM2.

However, consent and contract law can still protect individuals from CM to avoid the weak being pushed towards the wall, to use the words of Dillon LJ,<sup>1236</sup> as discussed in the following sections.

## **8.2 A possible Doctrine of Computational Manipulation. The Motive's Relevance and the Contract's Invalidity**

As considered by the Leverhulme Centre for Artificial Intelligence, a PT led by AI ‘will increasingly blur the lines between offering, persuading and manipulating’.<sup>1237</sup> The line is indeed blurred. According to what was stated in the previous sections, CM2 can lawfully create and shape a motive to contract and not the contract itself. The road, the motive, is irrelevant in contract law. Therefore, existing doctrines cannot deal with CM2. Nonetheless, according to multiple international, regional and national institutions referred to in Chapter 4, blurring the line between offering, persuading and manipulating can endanger autonomy and the right to mental self-determination.<sup>1238</sup>

The consequent issue is highly challenging from a contract law perspective.<sup>1239</sup> This challenge needs further analysis to state that the motive should be relevant when CM2 is involved and that any contract which results from CM2 should be void in a possible new doctrine of CM.

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<sup>1235</sup> See 5.3.

<sup>1236</sup> *Alec Lobb* (n 1068) 182 (Dillon LJ).

<sup>1237</sup> LCFI (n 383).

<sup>1238</sup> See Chapter 5 and Chapter 6.

<sup>1239</sup> Sorin Berbece, ‘Let There Be Light!’ Dark Patterns Under the Lens of the EU Legal Framework’ (Master of Intellectual Property and ICT Law, KU Luvern 2019); Luguri and Strahilevitz (n 286); Gregory M Dickinson, ‘Privately Policing Dark Patterns’ (2023) 57 Ga LR 1633.

### 8.2.1 The Impasse in CM2

In the case of CM, there is an impasse. According to what was stated before in this analysis, consent is a fundamental element in contract law and should be characterised by awareness and understanding, consisting of reaching a voluntary agreement or giving permission through a mental process based on volition due to information and comprehension.<sup>1240</sup> Every doctrine on defective consent in the two systems used in this analysis protects the ability to think and reason.<sup>1241</sup> Moreover, existing doctrines in both systems do not allow one party to induce a diminished state of mind in the other party or take advantage of the other party, which is in a diminished state of mind, even if not induced.

However, no existing doctrine in the two systems considers the party's motive relevant in a contract. English contract law and Italian contract law do not forbid one party to hypernudge a motive, even if hypernudging the motive results in inducing or taking advantage of a diminished state of mind. One party is not forbidden from identifying and nudging the motive of the other party because, in a human-to-human transaction, the party cannot defend themselves from, for example, threats, but they can generally defend themselves from the other party finding that motive. The motive has been considered irrelevant because, before the existence of an AI system, it was impossible to investigate the counterparty's mind so deeply without the party's awareness and understanding. It was impossible not to consent to personal questions. It was impossible to acquire so much information without the awareness of the other party. Too much knowledge regarding an individual was to be found only in special relationships, protected by existing doctrines such as undue influence. However, even in that case, the party is aware of the knowledge and relationship.

Therefore, the motive is irrelevant in both systems. However, the unperceived acquisition of knowledge of the cognitive biases, mixed with the computational abilities of an AI to adapt and interact covertly, obliterates the consent impacting on the motive. CM2 affects the right to mental self-determination through the motive and induces objective contractual consent.

Consequently, on one side, contract law preserves consent and forbids a party to push the other towards the wall. On the other side, it allows the identification and use of the motive through CM, allowing one party to take advantage of the other. There is an apparent impasse between the two sides. The following sections will consider a possible way to exit the impasse, relying on existing contract law principles.

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<sup>1240</sup> See 6.2 and 6.3.

<sup>1241</sup> See Chapter 7.

### 8.2.2 The Relevance of the Motive

Considering that the acquisition of the knowledge mentioned above, the analysis of such knowledge and its use are unprecedented, an unprecedented answer is needed. A technology able to impact so effectively autonomy, the right to be and remain in possession of thought, and therefore the right to mental self-determination, impacting so deeply on consent, should not be allowed in any transaction. As considered in Chapter 3, the EU has already reached this conclusion in Art. 5 of the AIA. The limits of the AIA and existing EU legislation have already been stated.<sup>1242</sup> However, the idea that manipulative technology should be prohibited is to be agreed on. The UK is also starting to recognise that manipulative technologies constitute a risk to autonomy and is considering the possibility of intervening.<sup>1243</sup> A specific prohibition should exist regarding the use of a manipulative AI in order to induce a contract. If it is apparent that a business should be allowed to advertise and sell products and services, it is also apparent that the advertisement and the selling cannot be allowed in any condition, and certainly not at the expense of autonomy and mental self-determination. Contracting, at the base of commerce, presumes autonomy and mental self-determination. No freedom of contract can be imagined without the capacity to create a thought. A technology able to impact and possibly obliterate autonomy and mental self-determination brings an unacceptable risk that should not be allowed. As considered above regarding defective consent,<sup>1244</sup> according to Baldwin, '[t]he real issue, on this view, is not whether the decision is shaped but whether the pre-nudge decision-making context is seen as manageable and acceptable'.<sup>1245</sup>

The decision-making context in the contractual field, if one party is allowed to use a technology able to shape thoughts, cannot be considered manageable and acceptable. A legal system that prevents one party from pushing the other towards the wall cannot allow bringing a gun to a fistfight. Between the right to exercise commerce and the right to mental self-determination, no doubt should arise regarding which one should prevail and which should be limited.

In any case, prohibiting manipulative technology might still not be enough. The use of such technology can be imagined even if it is prohibited. A company could consider the cost of a fine for using such a prohibited technology in their budget and conclude that it is still convenient. When technology can operate online, in every state, using any language, the possibility that such a use could be made even in the presence of a prohibition cannot be ignored. Using computationally manipulative technology will produce contracts hypernudged and based on impaired mental self-determination.

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<sup>1242</sup> See 4.3.

<sup>1243</sup> On 29/03/2023, the UK released a white paper called "A Pro-Innovation Approach to AI Regulation", which acknowledges, in the references in points 4 and 22, the risks of CM for autonomy and decision-making processes of individuals (n 117).

<sup>1244</sup> See Chapter 7.

<sup>1245</sup> Baldwin (n 738) 849.

Individuals should be protected with other levels of protection and remedies directly available to them. Consequently, a regulatory solution is not enough.

More effective protection can be found in contract law. However, contract law has today the limits underlined above in dealing with CM2, even when a consumer is involved, limits which reside with the objective test and with existing doctrines. Consequently, in the field of CM, the legal concept of consent should be reconsidered to include the motive that determined the consent. Investigating the road that brought an individual to the contract will allow the identification of CM2's use, even if forbidden and even in the presence of a signature. A court shall be able to investigate not just the result of the process that brought to entering into an agreement (as the offer, the acceptance, the terms, or the signature) but the totality of circumstances that played a role in the observable manifestation of intent, including the motive and how it was formed.

Leonhardt, referring to the general concept of consent, already suggested applying a totality of circumstances test.<sup>1246</sup> He underlined how the courts used this test in multiple contexts. The test reflects the court's recognition of the danger of relying on apparent manifestations of consent. For example, according to Leonhardt, the courts have adopted a totality of circumstances test to decide whether confessions by an accused in a criminal law context are voluntary, going over their signature.<sup>1247</sup> The same kind of test could apply to the formation of the contract when dealing with second-generation dark patterns and CM2. Notwithstanding the existence of a signature or a click on the 'I agree' button, a court should be able to investigate if one party had access to Big Data, cognitive profiling, and acquisition of information on the user able to affect System 1, even without a contract that calls for an explanation. In the case of CM2, the issue does not reside with the economic value of the transaction or with considering if the transaction is in favour or contrary to the interests of the individual. The issue is the protection of the right to self-determine thoughts. In order to preserve the right to mental self-determination, the court should be able to investigate not solely the objective consent but the motive that brought the party to the expression of consent and if the other party induced or influenced the motive using CM2. If the investigation of the motive is allowed, that investigation can bring the court to understand if CM2 was used. The court will not be stopped by a signature, by the irrelevance of the facts surrounding the contract or by the irrelevance of what is in one person's mind. The court will have the possibility to investigate if one party has been manipulated, starting the investigation from the beginning of the road (the motive) and not from the end (the contract), without stopping in front of a signature.

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<sup>1246</sup> Leonhardt, 'The Unbearable Lightness of Consent in Contract Law' (n 290) 87.

<sup>1247</sup> *ibid.*



With this regard, it shall be underlined that it would be highly complex to understand if and how an individual's mind has been manipulated. The difficulty is the same as that on which the objective test was created. The law needs something objective. The use of CM2 is objective. Therefore, given the difficulties in investigating a party's mind, there should be a presumption of defective consent if it is proved that technology which can manipulate is used.

It can be imagined that a party victim of CM2 will have issues proving that a CM2 has been used on them. However, there is an objective element on which CM2 needs to rely: Big Data. The existence of Big Data on the user is objective and will be reflected in corresponding privacy policies. Therefore, the use of such a technology can be inferred from privacy policies in which consent to personalisation and cognitive profiling is expressed; those privacy policies are usually not read and not understood but objectively exist. The existence of privacy policies can be evidence of cognitive profiling and personalisation relevant to a second presumption, the presumption of the use of CM2.

If an individual can prove the existence of a privacy policy, or more privacy policies, that contain a reference to personalisation and cognitive profiling, a presumption of unlawful use of CM2 will exist, bringing to the presumption of defective consent. The other party will always be able to give access to the court to their servers, programmes and computers to show every interaction with the user and rebut the presumptions. In this way, the other party will be obliged to track the entire interaction with the user, from the beginning to the end. There will be access to analytics not otherwise accessible, which experts will analyse to identify the presence or absence of hypernudging. What will not be read and understood by the party before signing will be read and understood by a court and used to switch the burden of proof on the other party.<sup>1248</sup> Therefore, the GDPR could play a relevant role against CM2. It will oblige to give accurate information to the user regarding cognitive profiling. However, the seller will no longer be able to rely on the absence of reading, understanding, and formal consent. If accurate information is given but not read or understood, the court will use the privacy policy stating the use of cognitive profiling as evidence of the prohibited use of CM2 in a rebuttable presumption.

There will always be the possibility of no privacy policy or no reference to any profiling in the privacy policy. However, the possible general prohibition of using such technology, existing data protection and privacy regulations, and the possibility of investigating the motive will still be relevant deterrents to using CM2. Moreover, a further deterrent could be the contract law consequence of using CM2, described in the following section.

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<sup>1248</sup> The shift in the burden of proof happens in the doctrine of undue influence, for example. On the burden of proof, see Alfred T Denning, 'Presumptions and Burdens' (1945) 61 LQ Rev 379. James B Thayer, 'The Burden of Proof' (1890) HLR 45.

### 8.2.3 Invalid Contract

A contract law consequence is needed to protect the right to mental self-determination. That consequence can follow the existing principles of contract law. In contemplating which consequence should follow the use of CM2, the interest of the individuals in having a personalised experience and the seller's interest in advertising their goods and services and selling shall be considered. However, the personalised experience and the selling cannot happen at the cost of the right to mental self-determination. If an individual has to be held accountable for the consequences of their mental state, that mental state should be preserved and prevail with the most severe consequence. A contract which results from CM2, therefore, cannot be considered valid.

A first line of reasoning in conceiving a possible consequence in contract law of using CM2 is to consider that if an individual is not in control of how thoughts are formed, no awareness and understanding can be considered existing, and, therefore, no consent is present. The law is coherent in English and Italian contract law regarding the consequences of the absence of consent. The contract, in the complete absence of consent, should be void. According to Art. 1418 Civil Code, the contract is void if it lacks consent. The same consequence is present in English contract law, for example, in the doctrine of *non est factum*<sup>1249</sup> and in some cases of mistake.<sup>1250</sup>

However, it should also be taken into account that the law, in both systems, has shown a tendency to consider the contract voidable and not void when one party takes advantage of the other. The solution of a voidable contract is the solution the Italian legal system offers in every case of mental incapacity or mental deficiency induced by the other party, self-induced or simply existing.<sup>1251</sup> The same solution is observable in most doctrines dealing with defective consent in the English legal system.<sup>1252</sup> It should also be considered that in most cases of CM2, there will not be a bargain that calls for an explanation. The party might be interested in maintaining the bargain after knowing they have been hypernudged. If the contract is voidable, the party will have the possibility to maintain the bargain. If it is void, they will not.

However, solid reasons for the contract to be void reside with public policy reasons in defending the right to mental self-determination and with coherence with how the doctrines react to the complete absence of consent. The contract is void when, under English contract law, there is *non est factum*, individuals do not understand their actions, and their minds are absent.<sup>1253</sup> The contract is

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<sup>1249</sup> See 7.1.3.

<sup>1250</sup> See 7.1.2.1.

<sup>1251</sup> See 7.4.

<sup>1252</sup> See 7.1.

<sup>1253</sup> See 7.1.3.

void in Italian contract law when a party impairs the counterparty's ability to decide.<sup>1254</sup> The contract is void without consent under Italian contract law (Art. 1418 Codice Civile and 1325 Codice Civile). Anytime the mind is not present because of the unlawful action of the other party, the consequence is usually that the contract is void. The contract is also void under Italian contract law, Art. 1418 c.c., when it is forbidden by statutory law and, as considered above, the use of CM2 in a contract should be prohibited.

It should also be considered that CM2 differs from the situations that render the contract voidable and considered in existing doctrines. The difference resides in the possibility of the victim of manipulation realising that they are being or have been manipulated and applying their mind to avoid it. If a person receives false information, is mistaken, or receives pressure, they can realise it. They can even apply their mind to avoid it, and contract law under both systems analysed above requires the parties to do so, reasoning with System 2. Instead, when dealing with CM2, it shall be taken into account that the interaction with CM2 is not perceived, never ends and happens in a continuously modified loop that affects System 1. The users are constantly under the unperceived influence of CM2. This influence evolves by learning from the user's behaviours and constantly reconfiguring itself, adapting to new data and more accurate profiling. The CM2 is always unperceived and never stops. The individual will remain in the information bubble, and the process of CM2 will affect System 1 as long as they remain online and connected. Having been the object of CM2 is unlikely to be eventually autonomously understood. When CM2 is involved, the individual truly believes the thoughts formed are theirs and based on awareness and understanding, even if they are the result of CM2 covertly affecting System 1. The individual might never realise they have been hypernudged and might continuously be under CM2. Also, a decision to maintain the effects of the contract could be the effect of CM2.<sup>1255</sup> Considering the contract as voidable might not be the preferable solution. Instead, if the contract is void, no possibility of maintaining the effects of a contract based on the erosion of the right to mental self-determination will be allowed, protecting the general public according to public policy reasons. However, if the contract is void, each party is generally allowed to ask the court to declare the contract void, and the party that put the CM2 in place should not be allowed to ask a court to declare the contract void. If not, the party that pushed the other towards the wall would be allowed to potentially benefit from taking advantage of the other.

Consequently, it would be preferable to have a tertium genus of invalidity similar but different from the concept of void, allowing more protection to the manipulated party and less to the

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<sup>1254</sup> Cassazione Sezione II 31 maggio 2022 n 17568.

<sup>1255</sup> See Francesco Bogliacino and others, 'Testing for Manipulation: Experimental Evidence on Dark Patterns' (2023) SocArXiv < <https://doi.org/10.31235/osf.io/sqt3j> > accessed 9 November 2023 on the inefficiency of a cool down period.

manipulator, in a kind of invalidity that is more than voidable and different from void.<sup>1256</sup> This tertium genus can be identified as para-void because it goes further in the protection than the concept of void and stands alongside the original concept.<sup>1257</sup> The tertium genus needs to be similar to the concept of void but different. In this tertium genus, just the party that has been manipulated will have the power to ask the court to declare the contract non-existent ab initio. The tertium genus also needs to provide greater protection than the concept of voidable. Consequently, the acquired rights of an innocent third party will not erase the power to render the contract para-void.

If the contract is void, voidable or para-void, the effect on the other party will be, in any case, similar. A relevant economic risk of using CM2 will be on the party that uses it while it is not allowed. This risk will act as a further deterrent. As considered in the previous section, a fine for using prohibited technology might not be enough. The party could consider the fine in the budget and choose to take the chance of using a prohibited technology. The profit from using CM2 could be significantly more relevant than a possible fine. Instead, a trial will always be possible if any contract concluded using CM2 can be set aside at any time. The risk will be impossible to calculate and potentially superior to the party's annual revenue.

Therefore, if the users ever realise they have been the object of CM2, maybe through another AI able to identify when CM2 is used, the contract will be para-void by default, according to the doctrine of computational manipulation. Consequently, the risk of the transaction will be on the party that took advantage of the other, on the party that pushed the other towards the wall, coherently with what contract law protects with existing doctrines, preserving autonomy and mental self-determination in contract law through consent.

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<sup>1256</sup> See Art. 36 Codice del Consumo, which states that a contract can be declared void only in favour of the consumer. See also Jesse A Schaefer, 'Beyond a Definition: Understanding the Nature of Void and Voidable Contracts' (2010) 33 Campbell LR 193.

<sup>1257</sup> My gratitude goes to Dr Ruth Wadman for suggesting the term 'para-voidable', from which the here used term 'para-void' derives.

# Chapter 9 Conclusions

In conclusion to this analysis, this chapter will examine how the research questions have been answered according to the chosen methodology. The value and contribution of the research will be discussed, as well as its findings and significance.

## 9.1 The Research Questions

In order to proceed in the final steps of the analysis, it is helpful to recall the research question and sub-questions addressed in this thesis:

- 1) How should contract law regulate Manipulative Persuasive Technology led by an Artificial Intelligence system?
  - a) What is Persuasive Technology, and how does it work?
  - b) How is Persuasive Technology able to undermine or manipulate the decision-making processes of individuals?
  - c) To what extent (if any) does the ability set out in point b) undermine individual autonomy in decision-making?
  - d) To what extent are existing English and Italian contract law doctrines able to address the issues set out in points b) and c)?
  - e) How should the issues set out in points b) and c) be regulated by English and Italian contract law?

The following Section will argue how the questions have been answered and the findings of this research, including their significance and relevance.

## 9.2 Answers to the Research Questions, Findings, Significance and Relevance of the Findings

As discussed in Chapter 1, this research aimed to identify how contract law should regulate manipulative technology led by an AI system. The aim has been reached by answering four functional sub-questions in three steps.

In order to identify a possible regulation of CM in contract law, as a first step, it has been necessary to identify and evaluate non-legal aspects of the context, and precisely what this technology is, how it operates and the consequences of its use, specifically its impact on autonomy in decision-making. Once the non-legal aspects have been identified, the conducted analysis could shift to legal

aspects, identifying existing responses to CM at a supranational level and then at a national level, focusing on contract law in the English and Italian systems. Having as a context the non-legal and legal aspects of CM, it has been possible to focus the analysis on the answer to the main research question, arguing how contract law should regulate manipulative technologies led by an AI system through a new doctrine of computational manipulation.

This thesis made three contributions to the field. It identified that the right to be protected against CM is the right to mental self-determination.<sup>1258</sup> It identified a lack of protection against CM2 (the kind of CM that does not rely on deception) in the EU law and contract law in the two systems used as case studies.<sup>1259</sup> The main contribution to the field consists of identifying the necessity of including the motive in the notion of consent when CM is used in contracting and considering the resulting contract para-void in a new doctrine of computational manipulation.<sup>1260</sup>

According to all the above, as expressed in Chapter 1, this research can be conceptually divided into three macro sections, which, in the following sections, will be considered in their findings and answers to the research question and sub-questions.

### **9.2.1 The Context**

The first macro section of this thesis corresponds to Chapters 2 and 3. This section has been used to define the context in which existing doctrines and legislation are called to operate, and it answers the first two sub-questions and partially the third one. The object of the third sub-question, the extent to which PT can undermine autonomy in decision-making, has a technical aspect, considered in the first macro section, and a legal aspect, taken into account in the second macro section of this thesis. The findings of the second macro section will be discussed in the next section.

According to the chosen methodology, the three sub-questions have been addressed by investigating the context, contemplating its aspects, related fields, and practical impact on society. The analysis involved contemplating non-legal matters with an interdisciplinary approach. Defining what a PT is, how it works, how it can impact the decision-making processes of individuals, and the extent of this impact on individual autonomy required the scrutiny of a vast amount of literature from different non-legal fields. The research context has been identified, starting with the description and definition of the concept of PT.<sup>1261</sup> In order to do so, it has been necessary to analyse literature in psychology and philosophy. The analysis allowed an understanding of persuasion and the necessity to separate this concept from coercion, deception, and manipulation. The conducted research made it

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<sup>1258</sup> See 9.2.2.1.

<sup>1259</sup> See 9.2.2.2.

<sup>1260</sup> See 9.2.3.

<sup>1261</sup> See Chapter 2.

apparent that the four concepts are different.<sup>1262</sup> Persuasion involves a change of attitudes or behaviours characterised by awareness and understanding. Coercion consists of depriving an individual of an acceptable choice. As apparent from the literature analysed and the doctrines related to duress, a coerced choice is still based on awareness and understanding.<sup>1263</sup> Deception and manipulation are more subtle forms of *peithenanke* (which consists of winning over the audience using non-transparent methods).<sup>1264</sup> As emerged from the conducted analysis of existing literature, manipulation shares some aspects with deception. This analysis was able to underline that it is possible to manipulate through deception and false information. However, the concept analysis made it apparent that manipulation might not rely on deception but on a more subtle process. Specifically, manipulation can rely on finding and using routes to the primordial brain of individuals, what Kahneman defines as System 1, in the absence of awareness and understanding, according to the definition given by Susser.<sup>1265</sup>

Identifying different meanings for manipulation has been crucial in determining the existence of two forms of manipulation. The first, called in this analysis M1, relies on misleading information. The second one, called in this analysis M2, instead relies on routes to System 1 and the absence of awareness and understanding.

The conducted analysis also identified the different kinds of technology possibly involved in a persuasive process by scrutinising existing literature in computer science. The analysis allowed this thesis to identify, with multiple examples, how a piece of technology can use persuasion, coercion, deception and manipulation. It was, therefore, possible to identify different kinds of technology that can be used in a persuasive process, underlining the difference between simple and complex technologies as an AI system.<sup>1266</sup>

The analysis focused on the ability of a PT to use manipulation, correlating concepts from the field of cognitive psychology to concepts of computer science, identifying the concept of nudge, how a nudge can be manipulative and how it can be used by technology. A nudge has been defined in Chapter 3 as a choice architecture that predictably modifies people's behaviour without forbidding any options or significantly changing their economic incentives.<sup>1267</sup> It emerged that a choice could be nudged without awareness and understanding of the target.

The analysis then moved to the evolution of a manipulative nudge in dark and second-generation dark patterns. Dark patterns have been identified in this analysis as 'practices in digital

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<sup>1262</sup> See 3.1.1.

<sup>1263</sup> See Chapter 7.

<sup>1264</sup> See 3.1.1.

<sup>1265</sup> See Chapter 3 for the references.

<sup>1266</sup> See 2.3 and 2.6.

<sup>1267</sup> See 3.1.2.

interfaces that steer, deceive, coerce, or manipulate consumers into making choices that often are not in their best interests’<sup>1268</sup> or ‘(...) business practices employing elements of digital choice architecture, in particular in online user interfaces, that subvert or impair consumer autonomy, decision-making or choice’.<sup>1269</sup> They are nudges based on *peithenanke* that operate online. The analysis showed that online interaction absorbs a part of an individual’s cognitive resources, leaving individuals in a state of flow whereby, when an experience is genuinely satisfying, individuals are so absorbed that their persuasion knowledge is neutralised.<sup>1270</sup>

The analysis was then able to state that when the nudges are applied and used by an AI, the power of the nudges increases, bringing to the hypernudge, a technology able to collect a vast amount of data on single users and find links between data items not otherwise observable, channelling the user’s response and decisions in directions chosen by the ‘choice architect’, according to and adapting to the users’ profile.<sup>1271</sup>

It was then possible to distinguish between first-generation dark patterns and second-generation ones, following a distinction made by a report produced by the Service Research Center of the Karlstad University.<sup>1272</sup> The difference resides with the ability of the second generation dark patterns, via the use of Big Data and ML, to target group and individual preferences, connecting a set of dark patterns to personalisation.<sup>1273</sup> Multiple examples have been provided to define the context better and the peculiarities of CM.

Once a thorough analysis of PT was reached, in the final part of Chapter 3, this thesis could begin answering sub-question c), addressing the impact of second-generation dark patterns on the decision-making processes of individuals and autonomy.<sup>1274</sup> The peculiarities of AI-driven persuasive technology have been identified. The conducted analysis made it possible to state that an AI, unperceived, can constantly acquire the user’s data, find connections not visible by a human being, and profile the users and their cognitive biases, adapting to the users through interaction and reconfiguring the environment according to the identified profile. It has been shown that an AI-driven PT can use manipulation, covertly influencing individuals by targeting and exploiting their decision-making vulnerabilities.

The conducted analysis demonstrates that PT’s ability to undermine the decision-making processes of individuals is considerably enhanced using compusuation, the ability to persuade

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<sup>1268</sup> EISMEA (n 46) 20.

<sup>1269</sup> OECD ‘Dark Commercial Patterns’ (n 349) 16.

<sup>1270</sup> *ibid* 22.

<sup>1271</sup> See 3.2.2.

<sup>1272</sup> Karlstad University, Service Research Center (n 304).

<sup>1273</sup> See 3.2.2.

<sup>1274</sup> See 3.2.3.



through AI, second-generation dark patterns and the hypernudge. The conducted analysis also underlined how the context of CM differs from any other manipulation-related context considered before. It was possible to conclude that the ability of such technology to impact autonomy in decision-making differs from any manipulation individuals experience during an in-person interaction. It differs in the amount of power involved in data analysis, in the ability to find connections, profile, interact and refine the profile. The most relevant difference resides with the ability of an AI-driven PT to proactively reconfigure itself and the interaction environment according to the emerged and redefined cognitive profile effectively, with extreme accuracy and in real-time.

Therefore, the first macro section of this thesis addressed the given sub-questions and defined what PT is, how it works, how it can undermine or manipulate the decision-making processes of individuals, and partially, to what extent it can undermine individual autonomy in decision-making. A PT is a technology that proactively influences human attitudes, behaviours, or both, changing, shaping, or reinforcing them in or against its users' interests. It can undermine and manipulate individuals' decision-making processes by covertly using routes to affect System 1 of the manipulation target. A manipulative PT can undermine autonomy in the decision-making processes of an individual to a degree not achievable by a human, being able to hypernudge a choice, pre-determined by the AI-PT, by acquiring and analysing Big Data on the individual, defining a cognitive profile of the target (including their cognitive filters and cognitive biases), interacting with the target of manipulation in order to redefine the profile, and reconfiguring the online environment according to the identified profile.

### **9.2.2 The legal Perspective**

The interdisciplinary analysis conducted in the first two chapters allowed the second macro section of this analysis to scrutinise the legal aspects of CM, addressed in Chapters 4, 5, 6, and 7 of this thesis.

In order to comprehensively analyse the context and thoroughly finish addressing sub-question 3, this analysis considered in Chapter 4 what has already been stated at an international, regional and national level regarding CM. The analysis assessed the first legal aspects of CM, specifically the impact of such a technology on the right to autonomy. In Chapter 4, through the analysis of multiple resources at supra-national and national levels, it has been possible to state that multiple institutions have started expressing concerns about PT's unprecedented ability to manipulate individuals via AI systems. Through the conducted analysis, it was possible to confirm that, according to the mentioned institutions, the unparalleled abilities of a second-generation dark pattern consist of analysing Big Data, profiling, interacting, finding routes to affect System 1, adapting according to the users' cognitive profile and manipulating them into a choice hypernudged for them. In Chapter 4, it was

possible to state that at an international, regional and national level, it is recognised that an AI system can hypernudge individuals' decision-making processes, affecting their ability to create a thought self-determinedly. As considered in Chapter 5, different fundamental rights have been deemed infringed by PT's manipulative abilities, namely autonomy, freedom of thought, the right to hold an opinion and to express it, self-determination, privacy, and informational self-determination.

#### *9.2.2.1 A First Contribution to the Field: the Right to Mental Self-Determination*

A first gap emerged from the conducted analysis, specifically, a lack of shared ideas at an international, EU and national level regarding which fundamental rights are violated by CM and which fundamental rights can protect individuals against it.

One common thread has been identified in the approach of different international, European and national bodies regarding CM. The common thread consists of recognising the possible threat to the ability of individuals to be or remain in control of their thoughts if, via the use of technology, too much information is known regarding them and used with unprecedented power for manipulation. This analysis concluded that in CM, the expression of Kantian autonomy leads to identifying a new, autonomous right to be protected, the right to mental self-determination. This right is tailored to the unique abilities of the unprecedented emerging technology to interfere with the decision-making processes of individuals and, therefore, with how thoughts are formed, not with how they are expressed.

Therefore, with a first significant contribution to the existing knowledge in this field, this thesis argued in Chapter 5 that the fundamental right that shall be protected against CM is a right implied in and presupposed by other fundamental rights, the right to mental self-determination. The right to hold and express or share a thought with others should be distinguished from the right to mental self-determination, which involves creating that thought, being in control of the decision-making processes and being free from cognitive interferences operated by newly emerged technology such as an AI-driven system. The right to express a thought is deprived of any validity if that thought is not self-determined. Building on what has already been expressed regarding this right and linking it expressly to CM, this thesis was able to state that this new right includes the right not to be hypernudged out of mental self-determination into a contract.<sup>1275</sup>

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<sup>1275</sup> See 5.4.

#### 9.2.2.2 *A second Contribution to the Field: the Identification of a Lack of Protection Against CM2*

A second gap emerged during the analysis of the existing EU legislation and the analysis of existing contract law doctrines in the English and Italian legal systems. CM2 is not considered by the EU or contract law in the two systems used as case studies.

##### 9.2.2.2.1 *The Lack of Protection Against CM2 in the EU Legislation.*

This analysis could underline in Chapter 4 that the EU approach to CM does not effectively preserve individuals from interferences in their decision-making processes perpetrated by an AI-driven system. The existing and future legislation applies or will apply solely to the EU. Therefore, it does not apply to one of the systems considered in this analysis, the English legal system. In any case, the existing and future legislation on CM has shortcomings, leaving blind spots. The concept of subliminal manipulation under Art. 5 (1) (a) of the AIA is unclear and undefined. Art. 5 (1) (a) does not define manipulation but links its concepts to information, leaving the kind of CM that does not rely on false or misleading information out of its scope. Moreover, the Article requires a causal link between the use of AI and harm, which is difficult, if not impossible, to be proved. The manipulation concept is blurred between the provisions of Art. 5 (a) and Art. 5 (b) of the AIA, opening the concept to interpretation and confusion. The requisites of these provisions are ex-post requisites, allowing the use of CM and relying, therefore, on the prohibition of technology after it has already been used, losing the functionality of a prohibition, which should be to avoid harm and not to let it happen in order to identify its existence. Art. 5 of the AIA prohibits some kinds of manipulation in (1) (a) and (b), but it allows the basis of manipulation in every field different from those indicated in Art. 5 (1) (dc). The Article does not apply to CM that causes non-significant harm, and in any case, a scenario as that of the e-cigarette.<sup>1276</sup> The GDPR will not protect individuals when formal consent to personalisation and profiling is present.<sup>1277</sup> The DSA and the DMA leave websites, small platforms, or small businesses that use CM out of their scope.<sup>1278</sup> Moreover, Art. 25 of the DSA does not apply to what is already protected by the GDPR and the UCPD. The UCPD and its Guidance leave out of their scope non-consumers and, in any case, CM2, the PT that can affect System 1 but does not rely on coercion, deception, or undue influence, as in the example of the e-cigarette.

Therefore, this analysis underlined a second significant legal gap in addressing CM. Not only at the international, EU and national levels, there is a lack of shared views on which fundamental rights are to be protected against CM, but also the legislation already present or to be approved by the EU

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<sup>1276</sup> See 4.3.2.3.

<sup>1277</sup> See 4.3.1.

<sup>1278</sup> See 4.3.3.1.1.

cannot cover every aspect of CM, and will not apply in England. Moreover, any legislation will leave room for contract law. Contracts will be signed even in the presence of legislation that prohibits some AI, or its use in some fields, that regulates data acquisition or some commercial practices, and contract law will apply to their regulation. Therefore, this analysis significantly contributed to the knowledge in the field of CM, identifying a second gap and then a possible solution, considered in the third macro section of this thesis.

#### *9.2.2.2.2 The Lack of Protection Through Existing Doctrines in Contract Law in the English and Italian Systems*

In order to reach a possible solution, it has been analysed, answering sub-question d) the issue of CM through English and Italian contract law lenses, for the reasons stated in Chapter 1. Chapter 6 considered how to protect the right to mental self-determination in its initial part, concluding that this right can be promoted and protected through consent, an enabler of autonomy and self-determination, an expression of the Kantian autonomy of the will.<sup>1279</sup> The conducted analysis underlined that the concept of manipulation is connected to that of consent.<sup>1280</sup> Considering the literature and the legislation in this field, the analysis concluded that contract law can preserve consent.<sup>1281</sup> Therefore, if the right to mental self-determination can be protected through consent, and if contract law preserves consent, contract law can preserve the right to mental self-determination against CM through consent. Given this premise, according to sub-question d), this research analysed if contract law doctrines in England and Italy related to consent can protect individuals from CM, preserving the right to mental self-determination.

In analysing existing doctrines, this research linked a contextual analysis to a doctrinal analysis, according to the chosen methodology stated in Chapter 1. The analysis conducted in Chapter 6 initially considered the identified context; PT, led by an AI, can impact and manipulate individuals' decision-making processes by relying on Big Data and interacting with the users, covertly finding routes to affect System 1. In the analysis, it has been considered that the result of the interference in the decision-making processes of individuals will be a new attitude or behaviour in the absence of awareness and understanding of the process.<sup>1282</sup> This analysis was able to underline that the new attitude and behaviour might lead to a contract and that the contract will be interpreted under an objective test (not investigating the parties' actual thoughts) from the perspective of a reasonable person in the position of the addressee, considering the factual matrix reasonably available, not taking

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<sup>1279</sup> See 6.2 for references.

<sup>1280</sup> *ibid.*

<sup>1281</sup> See Chapters 6 and 7.

<sup>1282</sup> *ibid.*

into account the parties' intentions, and under the mirror image rule.<sup>1283</sup> Nonetheless, that expression of consent will result from the PT affecting the user's decision-making process in volition, information, and understanding. The expression of consent will be objective but ostensible. This research also underlined the raising of the *uncontract*. According to Zuboff, a tendency to withdraw consent is observable in individuals' behaviour in the contractual field. This tendency undermines the essence of any agreement. Instead of a contract, it is raising its opposite, an *uncontract*, an agreement in which people give up their power to express their will to gain time and services.<sup>1284</sup> The *uncontract* is not a contractual relationship. It is a unilateral execution that makes the relationship between the parties unnecessary.

In Chapter 6, it has been possible to state that if the tendency to the *uncontract* is blended with the manipulative computational abilities of an AI-driven PT, the result is that any consent objectively given in a physical and online contract due to CM has a low chance of being based on awareness and understanding. Not only will the contract be the consequence of the exploitation of cognitive biases, in a continuous hypernudge towards the pre-determined choice, but any information on the collection, analysis and use of personal data received through a privacy policy or any information regarding the terms and conditions will not be read or understood. Nonetheless, according to the objective test, consent will be present.<sup>1285</sup>

Considering all the above, this research concluded in Chapter 6 that consent in contract law, according to existing doctrines, is insufficient protection against CM. Therefore, in Chapter 7, this thesis considered how the user was brought to the agreement and if the persuasive process can fall under existing doctrines related to possible lack of consent or vitiating factors. Different doctrines in the English and Italian systems have been analysed and used as case studies according to the chosen methodology. Consequently, it has been considered if CM can be a vitiating factor under existing doctrines in the two systems chosen as case studies.

The analysis underlined that even if the two systems differ in their approach to the issues that might affect a contract, existing doctrines in both systems protect consent and the decision-making processes of individuals. However, the two systems also consider the individual's responsibility, requiring the parties to read, understand, and apply their minds to the contract. Objectivity is present in both systems. The objective test renders the possibility of dealing with CM challenging in both systems. The need expressed by existing doctrines for an individual to apply their mind to the contract

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<sup>1283</sup> See 6.3.

<sup>1284</sup> Zuboff (n 26).

<sup>1285</sup> See 6.4.

and to every element that can be read and understood, together with the rules expressed by both systems regarding the effects of a signature, render the challenge more difficult.

Answering sub-question d), which asks to what extent existing English and Italian contract law doctrines are able to address the issues of CM, the analysis was able to underline that the two systems reached the same conclusion. Existing doctrines in English and Italian contract law can deal with CM when it relies on deception and false information (CM1). However, a third gap was identified during the analysis, significantly contributing to the field. The second kind of CM, which can covertly affect System 1 (CM2), is not considered in the case study systems in contract law. The consequent lack of protection of individuals against CM2 is present even if, according to what was stated by different bodies referred to in Chapter 4, it should exist. Moreover, the lack of protection is present even if CM2 consists of one party taking advantage of the other, impaired decision-making processes induced by one party, and defective consent, all circumstances considered relevant under both systems.

### **9.2.3 Findings and Answers to the Main Research Question. The Main Contribution to the Field**

This analysis discussed the findings in its last macro session, answering the last sub-question and, consequently, the main research question: how should contract law regulate Manipulative Persuasive Technology led by an Artificial Intelligence system?

In Chapter 8, this thesis addressed the reason for the lack of protection of contract law against CM2 underlined in the previous chapters, significantly contributing to the knowledge of CM from a legal and contract law perspective. Through the analysis of CM's non-legal and legal context, it was possible to demonstrate that the unprecedented abilities of a manipulative PT, which consist of covertly finding and exploiting routes to System 1, can create and hypernudge a motive to enter into a contract. CM2 manipulates the road to consent, how thoughts are formed and, therefore, consent itself.

However, as emerged from the analysis of doctrines, case law and legislation, the motive is irrelevant in contract law in both systems identified as case studies.<sup>1286</sup> This thesis argued in Chapter 8 that the contract is the last step on a long, hypernudged road that affects the right to create a thought. The hypernudge, the road that brought an individual to contract, will be lost in the motive and, therefore, will not be investigated.

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<sup>1286</sup> See Chapters 7 and 8.

A motive is an interest that a party aims to satisfy through the contract, but that is not incorporated in the contract terms. It is a psychological impulse which is not reflected in the contract.<sup>1287</sup> The motive is the primary element on which CM2 relies. As considered in the second chapter, an AI-driven persuasive system acquires Big Data regarding a user, analyses the data, and finds connections that are non-observable by a human being. The system then uses the connections to create a cognitive profile of the user and specifically to find the shortcuts to System 1. An AI-driven manipulative PT can observe and analyse the decision-making process of an individual.<sup>1288</sup> In simpler terms, an AI-driven manipulative PT acquires knowledge concerning how and based on which elements an individual decides and where the vulnerabilities in the decision-making processes are.

In contractual terminology, the knowledge of the decision-making processes of the other party is the knowledge of the motive to contract. This knowledge does not correspond to *what* an individual decides to do: enter into a contract to buy an object, for example. This knowledge corresponds to *how* that specific individual decides and *why* that individual might enter a contract. The knowledge acquired has as an object the psychological impulse that constitutes the motive to contract. It has been underlined that CM2 does not rely on System 2: reasoning, awareness and understanding. It relies on routes to System 1 and, therefore, on the primordial brain. CM2 relies on vulnerabilities in the identified decision-making processes. The AI system can then hypernudge the decision, changing, shaping and adapting to the cognitive biases of the individual through interaction. The manipulative AI pulls the strings of the vulnerabilities in decision-making until the target is achieved, unperceived, on the road to the contract.

If, with all the limits stated in Chapter 7, existing doctrines in the English and the Italian systems will take into account the terms of the contract and what is objectively ascertainable regarding them (the object, the price, warranties and other similar elements), the road that brought the parties to the contract is generally left to the parties. A ‘contract is not about what is in people’s heads’.<sup>1289</sup> When a signature, which might consist of a click, is present, the preclusion regarding the investigation of why and how the consent was reached is even stronger. An individual will lose the possibility of their mental state being investigated by clicking the ‘I agree’ button in the data acquisition phase, allowing profiling and personalisation. Any chance of investigation will be lost with the final agreement, specifically if made online with a click. Under an objective test, it will be observable that an individual declared they understood the information received, even if they did not, and clicked the

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<sup>1287</sup> Bianca, *Il Contratto* (n 611) 461. See n 1211.

<sup>1288</sup> See Chapter 3.

<sup>1289</sup> *Chartbrook* (n 649) [1109].

button. What happened in their mind, the actual mental road to consent, will not be scrutinised. It attains to the motive, and the motive is irrelevant.

The methodology applied made it also possible to state that the two systems suffer from the same logical impasse. On one side, contract law, in both systems, preserves consent and forbids a party to push the other towards the wall. On the other side, contract law allows the identification and use of the motive against one party through CM2, consequently allowing one party to take advantage of the other, identifying and using decision-making vulnerabilities to push the other party towards the wall.

#### 9.2.3.1 *A Possible Doctrine of Computational Manipulation. The relevance of the motive*

Once the entire context was identified, answering sub-question e) and with a unique approach to the identified legal issues, this thesis suggested how contract law and consent can protect individuals and the right to mental self-determination, relying on existing contract law principles. Notwithstanding the differences between the two systems used as case studies, the identified solution adheres to existing contract law principles in both systems. Considering the shortcomings identified in the two systems, this thesis suggested in Chapter 8 that the motive, which has always been irrelevant in contract law, should become relevant against CM2 in a new doctrine against computational manipulation.

The conducted analysis concluded that existing doctrines and legislation have been theorised and drafted in a different context, in which identifying how an individual reaches a decision (the motive for that decision) was based on a perceived interaction and with the limits of a human being. Investigating an individual's mind was impossible without awareness of the interaction and, at least theoretically possible, understanding.<sup>1290</sup> Moreover, the amount and accuracy of information accessible by a human being regarding possible routes of the counterparty to System 1 have been limited by human nature. The theories on Systems 1 and 2 were non-existent when contract law doctrines were conceived, as was the concept of an AI and its abilities. Therefore, the motive has been considered irrelevant in contract law, which focuses on the principle of caveat emptor, on the objective test and the contract terms, on the responsibility of the parties in applying their mind to the contract, without the necessity and the utility of investigating the road to the contract and what is in the party's mind. As Lord Blackburn stated in *Brogden v Metropolitan Railway Co* citing Brian CJ: 'for it is trite law that the thought of man is not triable, for even the devil does not know what the thought of man is'.<sup>1291</sup>

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<sup>1290</sup> See 8.1.1.

<sup>1291</sup> (n 638) 692.



Given that the context changed due to technology being able to identify with extreme accuracy what is in the party's mind and use routes to System 1 against one party, changing and shaping at an unprecedented degree, this thesis suggests that the motive, usually irrelevant in contract law, should become relevant in the new context of CM.

Specifically, this thesis suggests that, in a new doctrine of computational manipulation, the legal concept of consent in the field of CM should be reconsidered to include the motive that determined the consent. The motive is the road to the contract, which is the object of the hypernudge. Investigating the road that brought an individual to the contract allows the identification of CM2's use in the entire decisional process. This thesis suggested that, when dealing with CM2, a court shall be able to investigate not just the result of the process that brought to entering into a contract (as the offer, the acceptance, the terms, or the signature) but the totality of circumstances that played a role in the observable manifestation of intent, including the motive and how it was formed. A totality of circumstances test will allow not to rely on apparent, hypernudged manifestations of consent. Notwithstanding the existence of a signature or a click on the 'I agree' button, if the motive becomes relevant, a court will be able to investigate if one party had access to Big Data, cognitive profiling, and acquisition of information on the user, also collected by third parties. It could be investigated if one party found and covertly used, directly or via third parties, routes to System 1 of the other party to manipulate the consent to contract.

This thesis also underlined that, in the case of CM2, the issue does not reside with the economic value of the transaction or with considering if the transaction is in favour or contrary to the interests of the individual. The function of including the motive in the concept of consent is the protection of the right to self-determine thoughts. Without being stopped by a signature, by the irrelevance of the fact surrounding the contract, or by the irrelevance of what is in the party's mind, if the motive becomes relevant, the court will be able to investigate the formation of the contract from the beginning of the road (the motive) and not from the end (the contract), preserving the formation of thoughts as a process unencumbered or unmanipulated by AI-PT.

#### 9.2.3.2 *Presumptions of Computational Manipulation*

This thesis also identified some presumptions. Considering that investigating an individual's mind is and remains challenging,<sup>1292</sup> as it is proving that CM2 has been used, a first presumption of the use of a CM2 can derive from the existence of a privacy policy (or more) that refers to the collection of data regarding the psychological sphere of an individual, giving a significant role to the GDPR and

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<sup>1292</sup> See 6.3.

the data protection regulation. As considered in this thesis, privacy policies are usually not read and not understood but objectively exist.<sup>1293</sup> The existence of privacy policies can be evidence of cognitive profiling and personalisation relevant to the presumption of the use of CM2. If an individual can prove the existence of a privacy policy (or more) that contains a reference to personalisation and cognitive profiling, a presumption of use of CM2 will exist, bringing to the consequent presumption of defective consent.

The other party will always be able to rebut the presumption. However, to do so, the party will have to show every data concerning every user interaction and every data acquired directly or via third parties. In this way, the party will be obliged to track the entire interaction with the user, directly or through third parties, from the beginning to the end. There will be access to analytics and information not otherwise accessible by the user. Those who use CM2 will not be able to rely on non-reading or non-understanding of the counterparty and the limits of the objective test. What will not be read and understood by the party before signing will be read and understood by a court and used to switch the burden of proof on the other party.

### 9.2.3.3 *The Contract Resulting From CM shall be para-void.*

This thesis gave, finally, another suggestion. A consequence is needed in contract law for the use of CM in contracting, which should be coherent with existing contract law principles. This thesis suggested that the contract resulting from CM2 should be para-void, a concept similar to void, but unlike the ordinary understanding of ‘void’, it is only available to the manipulatee to ask for the contract to be declared void ab initio. The manipulator is thus prevented from taking advantage of their own misdeeds by being about to request such a declaration (which would be so if the contract was void in its ordinary usage). This suggestion is coherent with existing principles and the function of the doctrine of computational manipulation: protecting the right to mental self-determination through consent.

If an individual is not in control of how thoughts are formed, no awareness and understanding can be considered existing, and therefore, no consent is present. The absence of awareness and understanding, which impedes the formation of consent, renders the contract void in English contract law in some cases of mistake.<sup>1294</sup> The contract is void when, under English contract law, there is non est factum, individuals do not understand their actions, and their minds are absent.<sup>1295</sup> The contract is void in Italian contract law when a party impairs the counterparty’s ability to decide.<sup>1296</sup> The contract

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<sup>1293</sup> See 6.4.

<sup>1294</sup> See 7.1.2.1.

<sup>1295</sup> See 7.1.3.

<sup>1296</sup> Cassazione Sezione II 31 maggio 2022 n 17568.

is void in the absence of consent under Italian contract law (Art. 1418 Codice Civile and 1325 Codice Civile). If the mind is not present, the usual consequence is that the contract is void.

This thesis also considered that cases of defective consent are treated by contract law in both systems as causes of voidability. However, the circumstances that cause a contract to be voidable differ from CM2's. If a person receives false information, is mistaken, or receives pressure, they can realise it. They can even apply their mind to evade it, and contract law under both systems analysed in this thesis requires the parties to do so.<sup>1297</sup> Instead, CM2 is always unperceived and does not end. The individual will remain under CM2 as long as they are online and connected. The individual might never realise they have been hypernudged and might continuously be under CM2. Also, a decision to maintain the effects of the contract could be the effect of CM2. If the contract is void, no possibility of maintaining the effects of a contract based on the erosion of the right to mental self-determination will be allowed. Considering the contract void could be preferable, even if it will have possible consequences towards third parties. Manipulated consent through CM2 is not consent, and the choice is coherent with similar cases of absence of consent and has public policy reasons. As argued in Chapter 8, the right to mental self-determination should prevail on certainty in transactions.

However, the party that put the CM2 in place should not be allowed to ask a court to declare the contract void. If not, the party that pushed the other towards the wall would be allowed to potentially benefit from taking advantage of the other. Therefore, this thesis identified the concept of para-void to describe a tertium genus of invalidity that gives more protection to the manipulated party. The contract resulting from CM should be para-void, a concept similar to that of void, but allowing only the manipulated party to access the court to declare it. The tertium genus also needs to provide greater protection than the concept of voidable. Consequently, the acquired rights of an innocent third party will not erase the power to render the contract para-void. The risk of the transaction will be on the party that pushed the other towards the wall, coherently with what contract law protects with existing doctrines, preserving autonomy and mental self-determination in contract law through consent.

### **9.3 Conclusion**

Concluding this analysis, as underlined in Chapter 1, there is room for considering CM-related issues in different fields. This thesis significantly contributed to one of the possible fields, contract law, leaving room for possible future studies.

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<sup>1297</sup> See Chapter 7.

The first contribution to the field is identifying a lack of shared ideas at the international, EU and national levels regarding which rights shall be protected against CM. This thesis argued in Chapter 5 that the fundamental right that shall be protected against CM is a right implied in and presupposed by other fundamental rights, the right to mental self-determination.

A second contribution to the field is identifying a lack of protection against CM<sup>2</sup> in existing and future EU legislation and contract law in the two systems used as case studies.

Answering the main research question, the main contribution to the field of this thesis, contract law can preserve individuals from CM through consent, extending the notion of consent to the motive when a manipulative AI is involved in the process and allowing a court to consider it, and rendering the contract para-void if a manipulative AI system hypernudges an individual out of their mental self-determination. From this theoretical basis, it will be possible to give other relevant contributions to the knowledge of CM concerning the law and further protection of the right to mental self-determination against it.

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