LUISS

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Regulating Dark Patterns: promises and pitfalls of a fairness-oriented holistic approach in the European framework

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Academic Year 2020/2021

Un ringraziamento speciale al Centro di Economia Sperimentale CESARE, per il supporto e l'aiuto offerti, durante questo percorso.

Alla famiglia e agli affetti,
all'arte e alla musica,
a tutti coloro che portano avanti con passione, sacrificio e dedizione quello in cui credono.

A Roma.

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INTRODUCTION

This analysis aims at exploring the possibilities of regulation of Dark Patterns, promoting a fairness-oriented holistic approach, that has gained recent interest from scholars.

In chapter 1 of this analysis there is a reconstruction of current consumer protection within the European legal framework, starting from the neoclassical model of consumption and the rational decision-making model, that represents the key pillars on which consumer protection has originally been developed. Since the first regulatory tools within this regime, European Institutions have considered the consumer as an active market player, rather than a passive and inattentive consumer. This perspective has been further enhanced with the advent of *prosumption*, that has progressively made consumers and businesses act as equal partners.

Central within the consumer protection regime is the average consumer benchmark, that was firstly promoted by the CJEU in 1998, within the context of the Gut Springenheide case; however, this definition (i.e., consumer as reasonably well-informed and reasonably observant and circumspect individual) had been previously developed within the context of proceedings concerning the free movement of goods, labelling, and misleading advertising, among which Cassis de Dijon case, GB-INNO-BM case, Nissan case, Clinique case, Mars case and Graffione case.

The advent of *prosumption* has not only made consumers be more central within the production process, especially of services, but has also unlocked the full potential of digital economies: prosumers operating within online environments, have progressively released highly valuable information, namely their personal data.

Data have increasingly acquired central economic value, and this has provoked many concerns both for the protection of individuals and the regulation of the digital market. The high demand for personal information, the complexity of the new tools of analysis and the increasing numbers of sources of data collection, have generated an environment in which data barons have a control over digital information which is no longer counterbalanced by the user's self-determination. Users have been increasingly exposed to risks and the EU institutions have progressively tried to address this problem, building a suitable legal framework over the years and providing data protection to EU users.

The first European Directive that aimed to regulate the protection of individuals about the processing of personal data and the free movement of such data is Directive 95/46/EC. This directive was then replaced by the GDPR, in 2018.

The discussion on data protection fits in the analysis of consumer protection since they are two sides of the same coin: they both focus on the protection of a weaker physical subject, in one case represented by the consumer and on the other represented by the data subject, acting on the market, either the market of goods and services or the digital market.

Academics and scholars recognize that recently there has been a substantial growth of commercial behaviour exploiting the increasing information and power asymmetries between consumers and firms, especially in the online environment, among which Dark Patterns.

In light of these increasing threats within the digital market, the perspective of a fairness-oriented holistic approach, that conjugates consumer protection legal tools with data protection regulation and competition law, seems particularly promising because it would help to attain the consumer welfare and the welfare of the economy as a whole, going beyond the isolated application of singular legal tools.

In the context of consumer protection, the principle of fairness finds its application both in the Unfair Commercial Practices Directive and the Unfair Contract Terms Directive. While in the former, the concept of fairness is bounded to the promotion of the EU internal market and trade, in the latter, Article 3 promotes the unfairness test, that aims at assessing good faith, namely the presence (or the absence) of significant imbalance between the two parties involved in the transaction (i.e., the consumer and the trader). The principle of fairness is strictly bounded to principle of transparency, that represents a fundamental element to assess the unfair nature of a term within the contract.

In the context of the GDPR, the principle of fairness seems to have two main broad interpretations: fair balancing and procedural fairness. What clearly emerges from the provisions of the GDPR is an attempt to balance the interests of the different parties through the implementation of specific procedures that can ensure a certain level of transparency and lawfulness in the data processing. The GDPR does not prescribe in detail the necessary fairness to be implemented in the data processing: the data controller, looking at the specific circumstances and the context in which the personal data are processed, adopt her own level of fairness in order to ensure a fairly transparent and fairly lawful processing.

On the other hand, taking into-account the Ecommerce Directive, the principle of fairness is implemented with reference to fair trading and fairness towards clients and other members of the profession, reflecting from one side the application of this principle in the context of competition law and on the other side, its application in consumer protection regime.

Finally, within the context of competition law, the concept of fairness remains somewhat generic, and its role is less explicit than in regimes of data protection and consumer protection law. Rather than a substantive benchmark to evaluate anticompetitive behaviours and abuses, fairness can be regarded as an inherent objective or outcome of competition enforcement. The EU institutions and the EU competition law, by intervening against anticompetitive practices, aim at protecting the competitive process in the internal market to the benefit of consumers, competitors, and the economy as a whole.

Chapter 1 is concluded with some reflections about the current work of European Institutions on proposals for regulation capable to correctly address innovation and the exponential growth of the digital market (i.e., Artificial Intelligence Act, Digital Market Act and Digital Services Act).

In chapter 2, there is an analysis of possible pitfalls and shortcomings in the depicted fairness-oriented holistic legal framework, in view of behavioural studies and consumer neuroscience insights.

The first part of the chapter is dedicated to main studies from behavioural economics, with a specific spotlight on contributions given by Allais, Simon, Kahneman and Tversky, Thaler, Sunstein and Soman. Further, primary findings on consumer neuroscience are reported within the discussion. Considering all these

insights, several shortcomings emerge, both in consumer and in data protection regime within the European legal framework: the central critical point is represented by the information paradigm and two core foundations that directly stem from it: the average consumer benchmark and the information disclosure requirements.

The average consumer benchmark, firstly applied by the CJEU within proceedings concerning the free movement of goods, labelling, and misleading advertising cases (thus within the interpretation of the UCPD), has been applied also in proceedings concerning B2C contracts, within the interpretation of the UTD, starting from Kásler case, despite no explicit reference to this benchmark within the Directive.

What clearly emerges is that the CJEU has developed unrealistically high expectations of the average consumer, considering it as rational actor, capable to detect all relevant information. The Teekanne case possibly represents the first one in a series of judgment that understands the average consumer in a less normative way, opening to arguments about the real-world vulnerability levels of consumers; nonetheless, this first step, made by the CJEU, seems to be not enough to achieve more effective protection for individuals within the online environment, where Dark Patterns take place.

Chapter 3 is fully dedicated to Dark Patterns and to current literature within this field. Further, an empirical analysis is developed with the aim to explore the level awareness of the individuals on Dark Patterns; the final objective is to understand if transparency and information disclosure are effective tools, especially within the context of commercial practices that exploit cognitive bias. The second purpose of this experimental analysis is finding a moderating role of education on the relation between UIs and their level of awareness.

Finally, some conclusions are made on actual possibilities of a fairness-oriented holistic approach for the regulation of this phenomenon, that is becoming more and more relevant within the online environment.

CHAPTER 1

Outlying a fairness holistic approach at the intersection of consumer protection, data protection and competition law

1.1 Consumer decision-making: the Neoclassical Theory of Consumption

Consumer decision making has long been of interest to scholars and researchers. Starting from 300 years ago, early economists, led by N. Bernoulli, J.V. Neumann and O. Morgenstern, began to examine the basis of consumer decision making. They came up with important insights regarding utility studies, that, together with the Rational Choice Theory, represent the theoretical underpinnings of the Neoclassical Theory of Consumption.

Based on the idea of consumer as *homo oeconomicus*, this theory converges into the wide area of Neoclassical Economics, that is considered as mainstream economics and has been adopted in microeconomics to study the market equilibrium, hence the forces of supply and demand that generate it. There are three general assumptions that represent the core of the Neoclassical Model[1].

First off consumers are assumed to act as *perfectly rational actors*, who aim to maximizing their utility in their decision making process, where utility refers to the total satisfaction received from consuming a good or a service; as a matter of fact, the rationality postulate, expressed as the maximisation (optimisation) principle of the consumer's decision making process, means that the economic man is attributed the feature of hyperrationality, namely a full and true knowledge and an ability to process it, drawing logical conclusions about the choices made[2].

Secondly, *information symmetry* between the supplier and the consumer is assumed: knowledge of products and information on transaction conditions are supposed to be complete. The consumer is able to know all market possibilities, along with price variety and specific uses of individual goods.

Thirdly, the neoclassical microeconomic model assumes real markets to resemble a model of *perfect competition*, where competition eliminates monopoly profits disrupting a competitive distribution of income. The model of perfect competition particularly refers to a market form with a large number of small firms selling a homogeneous commodity to a large number of consumers. All market participants have perfect information about the prices and the costs of each good, consumer preferences are given and finally, there are no impediments whatsoever in the mobility of the factors of production[3]. The market is considered as self-regulatory and neoclassical scholars generally argue against public intervention.

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[1] Zalega, T. (2014). Consumer and Consumer Behaviour in the Neoclassical and Behavioural Economic Approach. *konsumpcja i rozwój*, (4 (9)), 64-79.
[2] *Ibidem.*
[3] Tsoulfidis, L. (2011). Classical vs. Neoclassical Conceptions of Competition (No. 2011_11).

1.1.1 Key assumptions of the Neoclassical Consumption Theory

Consumers constantly have to take decisions and they form preferences between different options, or better, bundles of goods, that are defined as sets of goods (say, x and y) that consumers can select. The preference relation is expressed as ≥ and it is an ordinal ranking rule.

The neoclassical theory of consumption takes into-account a rational decision maker; at the core of this analysis there is the expected utility theory, that will be analysed in section 1.1.4. Basically, there are three axioms of the expected utility theory that define a rational decision maker: *completeness*, *transitivity* and *continuity*. Additionally, according to the neoclassical theory of consumption, preferences are assumed to be *convex* and *monotonic*.

First off, according to *completeness* assumption, for any two consumption bundles *x* and *y*, either $x \geq y$, $y \geq x$, or both (the consumer is indifferent between the two): the consumer is always aware of his/her preference.

Secondly, transitivity states that for any three consumption bundles x, y and z, if $x \geq y$, $y \geq z$, it follows that $x \geq z$, namely consumers' preferences are considered as being cyclical. If completeness and transitivity are followed by the consumer in her decision-making process, the latter is said to be rational; in this sense, these first two statements converge into the *rationality* assumption.[4]

Thirdly, *continuity assumption* states that indifference sets (sets of bundles over which the consumer is indifferent) are continuous in a two dimensions space, namely they can be drawn along an indifference curve, explained here below.

Fourthly, there is a *convexity assumption*, according to which "with convex preferences, from any initial consumption situation x, and for any two commodities, it takes increasingly larger amounts of one commodity to compensate for successive unit losses of the other"[5].

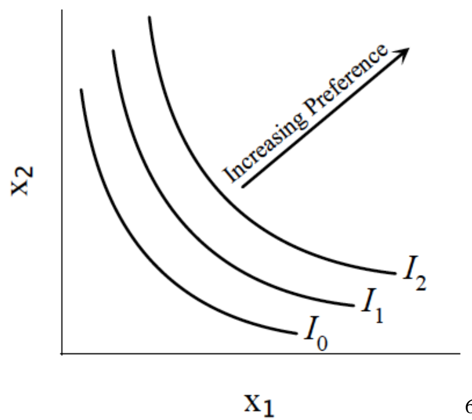
In conclusion, consumers always prefer a *bundle a* to a *bundle b* whenever the *bundle a* has more of at least one good from *bundle b*, while having no less of any other; this assumption goes by the name of *monotonicity*.

Taking into-account the 3 aforementioned assumptions, namely rationality (completeness and transitivity), monotonicity and convexity, it is possible to define indifference curves.

An indifference curve is defined as the locus of various points showing different combinations of two goods providing equal utility to the consumer and it represents a powerful tool to represent consumer's preferences under the microeconomic model.

[4] Selikoff, S. (2011). Understanding neoclassical consumer theory, 30.

[5] Mas-Colell, A., Whinston, M. D., & Green, J. R. (1995). Microeconomic theory (Vol. 1). New York: Oxford university press, 44.



[6]

Figure 1

In the graph the consumption bundles contain just two goods, x_1 and x_2. "The indifference sets are continuous (continuity), convex to the origin and smooth (by strict convexity), not "thick" (by monotonicity), and finally, they don't cross (rationality)"[7]. Looking at the graph it is possible to notice that higher indifference curves are preferred by the consumer to lower indifference curves: a greater quantity will always be preferred over a smaller quantity.

The slope of the indifference curve is called the marginal rate of substitution (MRS): the maximum amount of X_2 a consumer is willing to give up, to get one more unit of X_1. The MRS shows the number of good X_2 the consumer would trade to get one more of good X_1. A diminishing MRS (*convexity assumption*) implies that as X_2 increases, the slope of the IC curve gets flatter. In other words, as we get more and more of X_1, we are willing to trade less and less of good X_2 to get the next unit of X_1. MRS can be expressed as: MRS= $-d_y/d_x = -MU_x/MU_y$, where d_y is the derivative of y with respect to x and d_x the derivative of x with respect to y. Hence, the slope of an indifference curve is the negative of the ratio of the marginal utility of x_1 over the marginal utility of x_2.

Despite consumers always prefer larger quantities to smaller ones, their choices are limited by a certain budget; in addition, individuals act as price-takers and cannot modify the price of goods on the market by other means than through the supply-demand interaction[8].

Starting from these two assumptions, the microeconomic model introduces a budget constraint, defined as all the possible combinations of goods and services that can be purchased by a consumer with her income at their given prices. Mathematically it is possible to express the budget constraint as $BC=P_x*Q_x+P_y*Q_y$, where Px and Py are the prices of the goods x and y and Qx and Qy their relative quantities. The slope of the budget constraint is the negative of the price of the good on the x-axis divided by the price of the good on the y-axis: it represents how many of the goods on the y-axis the consumer must give up in order to be able to afford one more of the goods on the x-axis.

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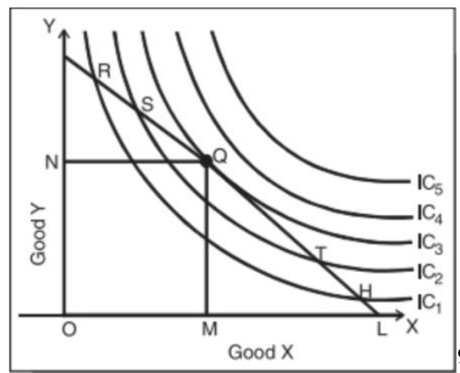
[6] Selikoff, S. (2011). *Understanding neoclassical consumer theory*, 13.
[7] *Ibidem*.
[8] *Id*, 21.



[9]

Figure 2

The rational consumer, under the neoclassical model, in order to maximize his/her level of utility, will try to reach the highest indifference curve. Since a budget constraint is imposed, he/she will be forced to remain on the budget line. Hence the equilibrium point is represented by point Q in the graph above: consumer's equilibrium is achieved when the price line is tangential to the indifference curve, or, better, when the marginal rate of substitution of the goods X and Y is equal to the ratio between the prices of the two goods.

Mathematically it can be expressed as: $MU_x/MU_y = P_x/P_y$

1.1.2 Defining the *homo oeconomicus*: The Rational Choice Theory and utility assumptions

Rational Choice Theory refers to a set of ideas about the relationship between people's preferences and the choices they make. The roots of Rational Choice Theory (RCT) trace back to the classical school of criminology and to the work of great 18th and 19th century philosophers Cesare Beccaria and Jeremy Bentham[10].

RCT tries to understand the economy by defining the actions of one individual and adding up what would happen if everyone acted like them. "To do this, rational choice theorists need to settle on what the average, or representative, person looks like, and how he or she acts. One of the oldest, and most popular versions of a representative person, and the one typically used in rational choice theory, is called 'economic man', or *homo oeconomicus*"[11].

The *homo oeconomicus* is a socio-economic paradigm based on a school of thought that look at the rationality of economic actions. This paradigm has its roots in the period between 1770 and 1830, in Europe, where the economic life intertwined more than ever with the political and intellectual life, from philosophy to art and religion. The birth and consolidation of this paradigm can be attributed to authors such as David Hume, Jeremy Bentham, Léon Walras, Adam Smith, Vilfredo Pareto, John Stuart Mill, Carl Menger and Ludwig von

[9] Neeraj, E. (2019, August), Consumers equilibrium and indifference curve, OER commons, available at [https://www.oercommons.org/authoring/57132-consumers-equilibrium-and-indifference-curve/1/view].
[10] Moran, R. (1996). Bringing Rational Choice Theory Back to Reality. The Journal of Criminal Law and Criminology (1973-), 86(3), 1147-1160. doi:10.2307/1143946.
[11] Our Economy, What is 'rational choice theory' and who is 'homo economicus' at [https://www.ecnmy.org/learn/you/choices-behavior/rational-choice-theory-homo-economicus/].

Mises, who outlined the features of this social, political and economic model that characterised their period and that has continued to predominate until half of the 20th century.

Looking at the roots of the *homo oeconomicus* and the rational choice theory, between the 18th and 19th century, there are two important contributions that deserve attention.

First off, Adam Smith's work "The Theory of Moral Sentiments", published in 1759, that presents the Economic Man as an agent that pursuits his own self-interest: "in his lineaments the economic man […] is an alarmingly rational creature who invariably seeks his own interest, who reacts with lightning speed to actual and anticipated changes in his real income and wealth"[12].

Secondly, Jeremy Bentham prefigured the model of *homo oeconomicus* as a man maximizing his well-being. Central in this analysis, is the definition of the principle of *utility* given by Bentham: he defined it as "that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question"[13]. In the decision-making process, the individual should sum up all the values of all the pleasures on one side and all the values of all the pains on the other: there will be a good tendency of the act upon the whole, with respect to the interest of the individual, if the balance is on the side of pleasures; on the contrary, a bad tendency if the balance is on the side of the pains. Therefore, individuals look for actions that will promote their pleasures and decrease their pain; since the stress is on the consequences of individual's actions, this approach goes by the name of *consequentialism*. The rational action in Bentham's view is described "in terms of the mental states which result from actions, and not in terms of the desires which...provide the motive power for action"[14].

Additionally, the individuals' utilities can be quantified and added together: "all it would take to achieve an optimal social state would be to take everyone's potential units of happiness, called *utils*, add them together, and choose the state which gave the greatest number of *utils*"[15]. In Bentham's view the utility is defined as something measurable; particularly, every individual is capable to assign a value to each available good according to an ordinal scale: this assumption represents the core foundation of the cardinal utility theory in economics.

In 1836, John Stuart Mills, in an in an essay about political economy titled "On the definition of Political Economy and on the method of investigation proper to it*"*, introduced a first definition of the economic man. As the title of the essay suggested, Mill investigated the role of the Economic Man with respect to the definition of the political economy as an independent science suitable to conduct the economic research.

[12] Grampp, W. D. (1948). Adam Smith and the economic man. *Journal of Political Economy*, *56*(4), 315.
[13] Bone, J. (2002). An Analysis and Critique of Neoclassical Economic Thought: The Pareto Principle, 2.
[14] *Id*, 4.
[15] *Ibidem.*

"Recognising that economics is a science that must use deductive reasoning, Mill said that the best way to determine its subject matter would be to identify some of the most fundamental regularities related to human economic behaviour ("the laws of human nature") which would act as a priori assumptions of economic theories."[16].

Particularly Mill assumes that economic agents aim to maximize their wealth; accordingly, economics would, therefore, be a science that treats "mankind as occupied solely in acquiring and consuming wealth"[17] and that "makes entire abstraction of every other human passion or motive, except those which may be regarded as perpetually antagonising principles to the desire of wealth"[18]. Such motives included:

(1) "aversion to labour,"

(2) and "desire of the present enjoyment of costly indulgences"[19].

John Stuart Mill, in the definition of utility, attempted to react to Bentham's view, according to which the man is reduced to a pleasure-seeking magnet, and he redefined *pleasure* including the happiness of the others: "people ought to act in such a way as to improve the happiness of society as a whole, not merely the individual"[20].

The essay "On the Definition of Political Economy", by J.S. Mill, "has been described as playing a crucial role in the transition between the classical political economy of Adam Smith and David Ricardo and the neoclassical economics of W.S. Jevons, Karl Menger, and Leon Walras"[21]. The latter gave important contribution to the marginal revolution that, starting in the 1870s, focused on identifying the subject and the scope of the economic research and gave crucial contributions to the Neoclassical Economics. Particularly, marginal scholars came up with relevant insights concerning the role of man in economic theories, generalising that the Economic Man wants to maximise his utility (that can be generally expressed as pleasure, satisfaction or benefit) rather than his wealth, as defined by Mill.

Subsequently, the Latin term *homo oeconomicus* was introduced by Vilfredo Pareto in 1892 in his work "Considerazioni sui principi fondamentali dell'economia politica pura". Pareto has assumed a decisive role in strengthening with scientific and analytical rigor the key concepts of the neoclassical theory, initially developed by marginal economists, in the field of economic sciences, making the neoclassical school the dominant one till up the first half of the 20th century. Particularly, Pareto has given a fundamental contribution to the utility theory with the introduction of the indifference curves and the principle of Pareto optimality. In

[16] Dzionek-Kozłowska, J. (2017). The early stages in the evolution of Economic Man. Millian and marginal approaches. Annales. Etyka w życiu gospodarczym, 20(6), 35.

[17] *Ibidem*, cited from Mill, J. S. (1836). On the definition of political economy; and on the method of investigation proper to it. *London and Westminster Review*, *4*(October), 120-164.

[18] *Ibidem.*

[19] *Ibidem.*

[20] Bone, J. (2002). An Analysis and Critique of Neoclassical Economic Thought: The Pareto Principle, 8.

[21] Hinnant, C. H. (1998). The invention of homo oeconomicus: A reading of John Stuart Mill's "on the definition of political economy". *Prose Studies*, *21*(3), 53.

the 19th century, a major problem for the economists with the utilitarian foundation was how to quantify utility and to compare it between people. Economists started to change the initial perspective, moving, so, from cardinal utility to ordinal utility; Pareto represents one of the first economist who has taken into-account this new orientation.

In 1906 he published the work "Manuale di Economia Politica", introducing for the first time the *indifference curves*: the author assigned to the curves a numerical index (*ordinal utility*) expressing the preference relations between commodities; particularly combinations of goods in higher curves are preferred to those in lower curves.

One problem remained, and that was interpersonal comparisons of utility; accordingly, Pareto introduced the principle of Paretian criteria: according to neoclassical theory, this principle offers a criterion by which to assess the efficiency of an allocation of any scarce resource. "The principle […] basically states that a social state is Pareto Efficient when there is no way in which one individual can be made better off without making anyone else worse off. Neoclassical theory and many economists see the principle as "self-evidently rational""[22]. The expression "better off" employed by Pareto implies that individuals are rational utility-maximizing agents, that, in a decision where the choice is between two states, select the one which they believe maximize their utility the most.

In the neoclassical model, "competitive equilibria without externalities, public goods, informational limits, etc. are, by the first welfare theorem, Pareto efficient."[23]. The fundamental theorems of welfare economics imply that competitive equilibria are efficient; accordingly, in the neoclassical model, an efficient economic outcome will occur through the workings of a *competitive market*.

The *homo oeconomicus* has then become a central assumption in the economic theory of the 20th century. Additional contributions to the definition of the *homo oeconomicus* have been given by Screpanti et al., that have identified three basic axioms concerning the economic man: atomism, egoism, and rationality. With atomism the authors refer to the fact that the economic agent is an individual whose preferences are formed without the influence of other preferences. Egoism means that individuals are guided only by their own preferences and seek to maximize their own welfare. Finally, with subjective rationality is intended that the individual is endowed with perfect and complete knowledge, namely an unlimited capacity for calculating the best means of achieving his ends[24].

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[22] Bone, J. (2002). An Analysis and Critique of Neoclassical Economic Thought: The Pareto Principle.
[23] *Id*, 9.
[24] Donnelly, S., Sophister, S. (2018). *Homo Oeconomicus : Useful Abstraction or Perversion of Reality ?*. Behavioural Economics. Student economic Review vol. XXXII, 96, cited from Screpanti, E. & Zamagni, S., 2005. *An Outline of the History of Economic Thought*. 2nd Edition ed. Oxford: Oxford University Press.

1.1.3 Expected Utility Theory: origins and development

The probability of an event has been traditionally defined as the ratio of the number of cases favourable to the total number of possible cases; this definition was firstly provided by J. Bernoulli and P.S. Laplace and subsequently widely adopted by mathematicians, such as Pascal and Fermat.

Despite the solidity and validity of this concept, the calculation of probability according to this method experienced a first crisis in 1730, when D. Bernoulli rephrased the St Pietersburg's paradox, according to the first formulation provided by of N. Bernoulli in 1713. The problem is presented as follows: "a game is considered, which consists in sequential flipping a coin until it is "tails". If it is "heads" after the first flip, then the win is 1 currency unit […], after the second flip it is 2 currency units, after the third – 4 currency units, and etc. The question is how much money will be paid for participating in the game"[25].

Applying the classical theory of probability, the problem was solved as follows[26]:

$$E[\bar{x}] = \sum_{k=1}^{\infty} x_k * p_k = \sum_{k=1}^{\infty} 2^{k-1} * 2^{-k} = \sum_{k=1}^{\infty} \frac{1}{2} = \infty;$$

where E $[\bar{x}]$ is the expected win, $\bar{x}$ a random variable taking values $x_k=2^{k-1}$ with probability $p_k=2^{-k}$, k represents the number of flips.

As a result of this calculation, one should give away an infinitely large amount for participating in gambling, which is unreasonable. Here lies the St Pietersburg's paradox, that opened a debate among mathematicians: the discrepancy between classic probability results and practical applications led mathematicians to formulate new hypotheses.

First off, Bernoulli proposed to replace the value of the win with its usefulness: the utility value assigned to an amount of money is subjective and not necessarily equal to the physical value of that money; specifically, the utility value depends on the wealth of the participant (that can be defined on his/her economic, social and psychological conditions). Bernoulli, so, introduced a logarithmic function as a base of the utility function, where ln(x) represents the relation between the utility value and the real value. It is expressed as follows:

$$ln\bar{x}_B = \sum_{k=1}^{\infty} \ln(x_k)p_k = \sum_{k=1}^{\infty} \ln(2^{k-1})2^{-k} = \sum_{k=1}^{\infty} \frac{k-1}{2^k} ln2 = ln2 \sum_{k=1}^{\infty} \frac{k-1}{2^k} = ln2$$

Here the expected win is equal to 2, as such, 2 < ∞. Consequently, the price of the game is a limited number, assuming that this is a subjective utility value.

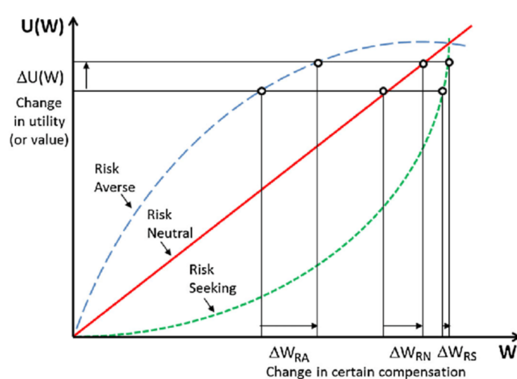
According to Bernoulli's analysis, the expected utility theory deals with the analysis of situations where individuals make decisions without knowing which outcomes may result from that decision, this is, *decision*

[25] Gasparian, M. S., Kiseleva, I. A., Korneev, D. G., Lebedev, S. A., & Lebedev, V. A. (2018). *Role of the St. Petersburg paradox in decision-making*. International Journal of Engineering and Technology (UAE), 7(4.38), 187.

[26] *Ibidem.*

making under uncertainty. The expected value should be adjusted to the expected utility in order to take into-account the *risk aversion* that characterizes individuals, where risk aversion is defined as the behaviour of humans, who, when exposed to uncertainty, attempt to lower the uncertainty. Risk aversion implies that the utility functions of individuals are concave and show diminishing marginal wealth utility.

Nevertheless, individuals do not always behave in the same way towards risk, their attitudes may vary due to economic elements, namely their wealth and their social status, as well as due to the decision *per se* (more or less risky); additionally, attitudes are also influenced by a personal inclination towards risk. An actor's attitude toward risk is conventionally defined in terms of marginal utility or the shape, namely the curvature, of the utility: risk neutral individuals have linear utility functions, risk seeking individuals have convex utility functions and risk averse individuals have concave utility functions. Therefore, the degree of risk aversion can be measured by the curvature of the utility function.



[27]

Figure 3

Finally, individuals, according to the Rational Choice, will select the option with the highest expected utility.

The St. Petersburg paradox is a predecessor of the expected utility theorem, formalized in 1944 by John von Neumann and Oscar Morgenstern, in their book "Theory of Games and Economic Behavior". This theory, accepted and applied as an economic model of the behaviour of human beings, considers man as a rational and predictable being, and studies his preferences. It is based on a deductive procedure starting from some axioms that define the requirements of rationality, characterizing the individuals.

Here the axioms as presented by the authors[28]:

1) *Completeness*: according to this axiom, consumers are always aware of their preferences. In a choice between *u* and *v*, a decision maker is always able to choose *u* over *v, v* over *u* or be perfectly indifferent to which of the two is chosen. Namely: $u>v$ *or* $v>u$ *or* $u=v$

[27] Harris, C., & Wu, C. (2014). Using tri-reference point theory to evaluate risk attitude and the effects of financial incentives in a gamified crowdsourcing task. *Journal of Business Economics*, *84*(3), 281-302.
[28] Morgenstern, O., & Von Neumann, J. (1953). *Theory of games and economic behavior*. Princeton University Press, 26-27

2) *Continuity*: if v is preferable to w and w is preferable to u, then the combination of u with a chance $(1-\alpha)$ of v will not affect w's preferability to it if this chance is small enough. Despite how much v is desirable, one can make its influence as weak as desired by giving it a sufficiently small chance.

3) *Independence or invariance*: if a third option w is added to two existing options u and v, the order of preferences, assuming $u>v$, is maintained despite the presence of a new option. In other words, choices do not depend on the context, but only on the quantities involved.

4) *Transitivity*: consumer preference for u over v and v over w directly implies a preference for u over w. This axiom can be expressed as follows: $u > v$, $v > w$ imply $u > w$[29].

It is possible to add a 5th axiom, namely *insatiability of preferences*: the consumer is never satisfied, and a greater quantity will always be preferred over a smaller quantity. The growth of preference increases along with the growth of probability, and given two alternatives with the same quantities, the one with the highest probability is preferred.

"A utility function u is said to have the expected utility property if, for a gamble g with outcomes $\{a_1, a_2 \ldots a_n\}$ with effective probabilities $p_1, p_2, .. p_n$, respectively we have"[30]:

$$u(g) = p_1 u(a_1) + p_2 u(a_2) + ... + p_n u(a_n),$$

where $u(a_i)$ is the decision-maker's utility from outcome a_i.

An individual is defined as utility maximiser when he selects one gamble over another if and only if the expected utility is higher.

To sum up, von Neumann and Morgenstern proved that, as long as all the preference axioms hold, then a utility function exists, and it satisfies the expected utility property. Once the utility function has been created, the rational individual will choose the alternative that maximises the expected utility level U(x), defined as the weighted average of the utilities of the individual alternatives using as weights the probabilities of the occurrence of the alternatives considered.

$$U(x) = \sum_{i=1}^{N} piU(wi)$$

[29] Transivity axiom is of central importance in economics since it represents a necessary condition for the existence of an ordinal utility scale, u, such that for all x and y, $u(x) \geq u(y)$ if and only if $x \geq y$. [Tversky, A. (1969. Intransitivity of preferences. *Psychological review*, *76*(1), 31-48].

[30] EconPort (n.d), Von Neumann-Morganstern Expected Utility Theory. Available at [http://www.econport.org/content/handbook/decisions-uncertainty/basic/von.html].

1.2. Consumer protection under the EU legal framework

Consumer protection finds its origin in the US and has then been implemented in the European Union by the European institutions, integrating it in the construction of a single internal market. The paradigm on which consumer protection has been constructed reflects the neoclassical theory of consumption, illustrated in paragraph 1.1.

Under this framework, the provisions contained in the EU Treaties, together with the judgments of the European Court of Justice and the numerous regulatory interventions by the EU institutions, have, over time, constituted the s.c. *acquis communautaire* in the field of consumer protection.

1.2.1 Origins of consumer protection

Consumption of goods and services has always been part of people's lives, but consumption on a regular daily basis, as it is known today, has taken shape only recently, with the First Industrial Revolution, at the end of the 18th century. According to Rayna and Striukova[31], only at that time, the modern concept of consumer, as someone who purchases goods and services for personal use, came into existence.

The development of mass production has made consumption be more accessible, transforming it into a condition of social belonging, and, as a direct effect, into an inner element of citizenship[32].

Initially, the jurists, as well as the policy makers, reflecting the economists' perspective of that time, used to follow the idea of *laissez-faire*[33], considering the market as a self-regulatory entity, where free competition between the different agents (e.g., firms) set the rules and balance the different interests; hence, a proper market regulation was totally missing.

Only at the end of the 19th century, in the US, the situation started progressively to change and policy and legal maker started to move toward an enhanced regularisation of the marketplace. In 1890, the US Congress enacted the Sherman Act, the first anti-trust law, as a response to the need to intervene in the free (perhaps wild) expression of the marketplace[34]. According to Silva and Cavaliere[35], the Sherman Act was aimed, above all, to counteract the expansion of large monopolies and to protect small producers, introducing crimes against competition, which therefore became a public good. Over the years, however, the objective of indirect protection of the consumer took over the defence of small producers, becoming the main motivation of market regulation. Accordingly, 1890 is considered an important date in the field of consumer protection policies.

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[31] Rayna, T., & Striukova, L. (2016). Involving consumers: the role of digital technologies in promoting 'prosumption'and user innovation. *Journal of the Knowledge Economy*, 1-20.

[32] Silva, F. (Ed.). (1996). La tutela del consumatore tra mercato e regolamentazione. Fondazione Adriano Olivetti (IS), 10.

[33] Laissez-faire is an economic theory from the 18th century that opposed any government intervention in business affairs. The driving principle behind laissez-faire, a French term that translates as "leave alone" (literally, "let you do"), is that the less the government is involved in the economy, the better off business will be—and by extension, society as a whole. Laissez-faire economics are a key part of free market capitalism (Investopedia, "Laissez faire"), available at [https://www.investopedia.com/terms/l/laissezfaire.asp].

[34] Alpa, G., & Catricalà, A. (Eds.). (2016). *Diritto dei consumatori*. Il mulino, 46.

[35] Silva, F. (Ed.). (1996). La tutela del consumatore tra mercato e regolamentazione. Fondazione Adriano Olivetti (IS), 15.

Additionally, in 1906, the Council enacted two other regulatory acts: The Federal Meat Inspection Act (FMIA) and The Pure Food and Drug Act (PFDA). These two regulations, are pivotal to understand "how consumer protection was, in its early developments, strictly bound to out-of-market interests, such as the safeguard of American citizens' health"[36]: the first one required certified, trained officials to inspect all animals before slaughter to ensure their health and any found diseased would not be fit for eating; the second one required that all food and drugs meant for human consumption pass strict testing to assure safety and cleanliness[37].

In the first phase, consumer protection was mainly supported by organizations linked to the major trade unions (such as the *National Consumer League*[38]) and by groups specialized into the implementation of comparative testing (*Consumers Union and Consumer Research*[39]). Consumer protection was initially targeted to general category of individuals worthy of protection, rather than to individual consumers: for instance, the National Consumer League aimed to protect workers, specifically women and children.

After the II World War, in the 60s of the 20th century, the action of the American Consumer Movements[40] triggered significant changes toward an enhanced protection of individual consumers. A relevant starting point of all these actions is represented by the first recognition of consumer's rights by the US President JF Kennedy, during a speech of 1962. The then-US President recognized four areas of interest in the field of consumer protection:

"(1) The right to safety - to be protected against the marketing of goods which are hazardous to health or life.

(2) The right to be informed--to be protected against fraudulent, deceitful, or grossly misleading information, advertising, labelling, or other practices, and to be given the facts he needs to make an informed choice.

(3) The right to choose--to be assured, wherever possible, access to a variety of products and services at competitive prices; and in those industries in which competition is not workable and Government regulation is substituted, an assurance of satisfactory quality and service at fair prices.

[36] Davola A. (2019), *The death of traditional consumer law at the crossroads of law, economics and cognitive sciences: a tentative reaction*. PH.D. in Individual Person and Legal Protections. Scuola Superiore Sant'Anna di Studi Universitari e di Perfezionamento, 11.

[37] Encyclopedia (n.d.), Encyclopedia, Meat Inspection Act/Pure Food And Drug Act, available at [https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/meat-inspection-actpure-food-and-drug-act].

[38] "National Consumers League (NCL), American organization founded in 1899 to fight for the welfare of consumers and workers who had little voice or power in the marketplace and workplace. The National Consumers League is still in place today as a private, non-profit advocacy group representing consumers on marketplace and workplace issues" National Consumers League [nclnet.org], available at [https://nclnet.org].

[39] "Consumer Reports (CR), formerly Consumers Union (CU), is an American nonprofit consumer organization dedicated to unbiased product testing, investigative journalism, consumer-oriented research, public education, and consumer advocacy. Founded in 1936, CR was created to serve as a source of information that consumers could use to help assess the safety and performance of products" *Consumer Reports*, Wikipedia [en.wikipedia.org], available at [https://en.wikipedia.org/wiki/Consumer_Reports].

[40] "In the private sector, in the Sixties, the number and the size of consumer organizations increased at a very rapid rate particularly at the state and local level where consumers organized for a variety of reasons. Some lobbied for legislation and others protested rising food prices" Ittig, K. B. (1983). The Consumer Movement in the United States. Bridgewater Review, 2(1), 7-11.

(4) The right to be heard--to be assured that consumer interests will receive full and sympathetic consideration in the formulation of Government policy, and fair and expeditious treatment in its administrative tribunals."[41]

The turning point of the 60s matches with the development of new forms of political pressure focused not on traditional lobbying but on the mobilization of a broad public opinion in favour of a general modification of the balance of power existing between consumers and producers. The wide network of organizations that were constituted around the action of Ralph Nader (the so-called "Nader Network") interpreted the defence of the consumer in a new way, oriented not exclusively to the demand for public regulation but also to a political pressure for institutional reforms that could allow a greater representation of consumers in the policy agenda. At the basis of this action lies a new conception of the consumer, considered not anymore as a *homo oeconomicus*, unboundedly rational and focused only on obtaining increasingly favourable market conditions, but rather as a citizen interested in the defence of her social and political rights against the huge influence of large companies over the distribution of products and services[42]. In particular, Nadar's objective was, on the one hand, to create a new public opinion in favour of the consumerist issue and, on the other hand, to exert pression over the government bodies in order to make the consumerist issue a topic in the public policy agenda. In an ever-increasing way, policymaker started to recognize that the consumer as defined in the neoclassical economic model is far away from reality. Sylvia Lane, in a Policy Studies Review in 1983, recognized that "consumers are less than perfectly knowledgeable of perfectly rational, i.e., they do not always logically try to act in their own best interest or to maximize their utility and act in accord with the economist's axioms of preference. They are far from sovereign in our economy"[43]. Particularly transaction costs, informational asymmetries and externalities are recognized as the main factors that make reality diverge from the neoclassical model.

"It is frequently the case that a market's performance significantly diverges from what economists would call an effective competitive marketplace. […] Market failures are driven by reasons of both supply (seller) and demand (consumer) side. From the point of view of consumer protection, at least three of those should be indicated, namely asymmetric information, uncompetitive markets and, to some extent, externalities"[44].

1.2.2 Early developments of consumer protection in the EU as a symptom of the neoclassical model

In the EU framework, an interest toward consumers and their protection has emerged only starting from the 60s of last century. Under the influence of the US Consumeristic movements and the related progresses toward an enhanced consumer protection, the EU countries started to take into-account the problem of

[41] Kennedy, J.F. (1962), *Special Message to the Congress on Protecting the Consumer Interest*, 15th March 1962, available at [https://www.presidency.ucsb.edu/documents/special-message-the-congress-protecting-the-consumer-interest].
[42] Silva, F. (Ed.). (1996). *La tutela del consumatore tra mercato e regolamentazione*. Fondazione Adriano Olivetti (IS), 76.
[43] Lane, S. (1983). The Rationale for Government Intervention in Seller-Consumer Relationships. Review of Policy Research, 2(3), 419.
[44] Bukowski M., Kaczor T. (2019), Contribution to Growth: Consumer Protection Delivering economic benefits for citizens and businesses - Policy Department for Economic, Scientific and Quality of Life Policies, 15.

consumers' rights and to enact proper national legislations, for instance the French Parliament, in 1978, enacted the *Loi n° 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés*.

But the real turning point, beyond the actions of the individual EU states, can be seen in the progressive integration of the European Market, along with a recognition of consumer protection. One of the main theoretical underpinnings of the EU Internal Market is represented by the safeguard of competition, hence by the development of a freely competitive market under the libertarian perspective. According to Alpa and Catricalà[45], with the introduction of the discipline of competition and the market, the interests of consumers are necessarily invested in a direct way: therefore, they are not *sub species* of the protection of competition, but *sub species* of the market protection. This is because consumers also operate in the market, not as *domini* (i.e., not in a dominant position), but not even as *subiecti* (i.e., passive subjects in the marketplace). If the market is the ideal place of conflict, as well as the place where the various interests meet altogether, the interests of consumers must be taken into-account as well.

In June 1961, Sicco Mansholt, a Member of the Commission responsible for agriculture, announced during a meeting:

> "Up to now we have had numerous contacts with manufacturers' associations and with the trade unions, which are well organized at Community level; at the same time, we are bound to say that the interests of the consumer in the common market are not represented with the same weight as those of the manufacturer. Consumers must therefore organize themselves..."[46]

Subsequently, the consumer associations working at Community level formed the Contact Committee of Consumers in 1962. The main task of the Contact Committee was to ensure an effective representation of consumers interest within the European Economic Community, with a particular focus on agricultural and industrial products.

Despite the Contact Committee dissolved in 1972, the work done by the people involved in the project has been fundamental to the integration of consumers' rights in the EU policy agenda.

In September 1973, the Commission set up the Consumers' Consultative Committee; the Committee was given the task of "representing consumer interests to the Commission and advising the Commission on the formulation and implementation of policies and actions regarding consumer protection and information, either when requested to do so by the Commission or on its own initiative"[47]. In the same year, the Council of Europe, with the resolution n. 543/1973, promoted the "Consumer Protection Charter", thanks to which, consumers' essential rights were clearly defined for the first time.

Particularly, the rights as defined in the Chart reflect the speech of the President J.F. Kennedy of 1962, cited above. Indeed, it is possible to find five main areas concerning consumer's rights: (A) the right of consumers to protection and assistance, (B) the right to redress against damage, (C) the right to consumer

[45] Alpa, G., & Catricalà, A. (Eds.). (2016). *Diritto dei consumatori*. Il mulino.
[46] Commission of The European Communities (1984), *Consumer representation in the European Communities*, 10.
[47] *Id,* 12.

information, (D) the right to consumer education, (E) the right to representation and consultation.[48] The principles of the Charter were effectively implemented, at a EU Community level, with the Council Resolution of 14 April 1975 on a "Preliminary Programme of the European Economic Community for a Consumer Protection and Information Policy".

In the Programme the consumer is defined not "merely as a purchaser and user of goods and services for personal, family or group purposes but also as a person concerned with the various facets of society which may affect him either directly or indirectly as a consumer"[49]: she is recognized as an active actor in the society, with well-defined rights that have to be protected, both at a national and at a community level. Indeed, it is possible to notice a first attempt of harmonization within EU countries in the area of consumer's protection: "all these rights should be given greater substance by action under specific Community policies such as the economic, common agricultural, social, environment, transport and energy policies as well as by the approximation of laws, all of which affect the consumer's position"[50].

In the Programme, the European Institutions recognized an imbalance between the consumer and the distributor (i.e., the supplier); particularly, with the development of mass production and the consumeristic society, producers and distributors gained greater opportunities to determine the market conditions than the consumer, that was considered to have less power in the commercial transactions and, consequently, be more exposed to risks. The main cause of this imbalance was identified in the *information asymmetry* between the two counterparts: "increasingly detailed information is therefore needed to enable consumers, as far as possible, to make better use of their resources, to have a freer choice between the various products or services offered and to influence prices and product and market trends"[51]. The basic idea was that providing more information to consumers, a better balance in the commercial transaction would be achieved. It follows that the consumer, within this context, was assumed to be a rational actor, capable to elaborate a *wide range of information*. Accordingly, the "Programme of 1975 proposed, on the one hand, the end of the equality of contracting parties in consumer sales, so intervening in the basic principles of contract law, and on the other hand, reaffirmed the paradigm of the *rational consumer* who requires adequate information (and no more) to fulfil her role in the market"[52]. According to Willet[53], consumer information and education seem to have been given an increasingly high priority over the years.

A "Second Programme of the European Economic Community" for a consumer protection and information policy was implemented by the Council with a new Resolution, in 1981. The new program aimed to continue the measures to protect and inform consumers, on the line of the first Programme, but also

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[48] Consumer Protection Charter; Author(s): Parliamentary Assembly; Origin - Assembly debate on 17 May 1973 (7th Sitting) (see Doc. 3280, report of the Committee on Economic Affairs and Development). Text adopted by the Assembly on 17 May 1973 (7th Sitting). Retrievable from [http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=15956&lang=en].

[49] Preliminary Programme of the European Economic Community for a Consumer Protection and Information Policy, comma 3, available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31975Y0425(01)&from=EN].

[50] Preliminary Programme of the European Economic Community for a Consumer Protection and Information Policy, comma 4.

[51] *Id*, comma 8

[52] Schüller, B. (2012). The definition of consumers in EU consumer law. *European Consumer Protection*, 123-142.

[53] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 92

recognised consumer law as a means of fulfilling the goals of the common market, with a particular focus on two notable questions: "(1) the price of goods and services, regarding which the Community already exerts some influence, notably in the common agricultural policy, but also in the competition policy; (2) the quality of services, both public and private, which account for an ever-growing share of household expenditure"[54].

In addition, the Programme sought to create the conditions for a better dialogue and closer consultation between representatives of consumers, producers and distributors.

In the first years of the 80s, new regulatory acts[55] concerning consumer's protection have been progressively introduced within the EU Community, basically aiming to ensure that individual consumers would make effective choice without being impaired by fraud, deception, or the withholding of material information. Particularly relevant is the Directive 84/450/EEC relating to the approximation of the laws, regulations and administrative provisions of the Member States concerning misleading advertising; it represents the first regulation "stressing the need of protecting consumers in their interaction with professionals during the promotion of products"[56]. The purpose of the Directive, repealed in 2007, was to "protect consumers, persons carrying on a trade or business or practising a craft or profession and the interests of the public in general against misleading advertising and the unfair consequences thereof"[57]. Member States had to ensure adequate and effective means to control misleading advertising, in the interest of consumers, as well as competitors and the general public.

Because the Community originally lacked any consumer policy competence, the first generation of consumer legislation was developed using a legal basis for market integration which, until the Single European Act (1986), required unanimity in the Council. "Under this framework, it was difficult to justify measures more intrusive than information regulation because Member States would object that the Community was acting *ultra vires*. By the time the EU was later empowered to legislate in the field of consumer protection, *information requirements had become strongly embedded in the European consumer law culture*"[58]. Subsequently, in 1986, the 12 EC members[59] decided for a revision of the Treaty of Rome, giving birth to The Single European Act (SEA).

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[54] Second Programme of the European Economic Community for a consumer protection and information policy, Introduction, comma 3, available at [https://op.europa.eu/it/publication-detail/-/publication/df7dfa0f-913f-4685-b0a0-69ba1f25db04/language-en].

[55] Among others, the Council Directive 85/374/EEC on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products; the Council Directive 85/577/EEC to protect the consumer in respect of contracts negotiated away from business premises, replaced by the Consumer Rights Directive (2011/83/EU); the Directive 87/102/EEC, amended by the Council Directive 90/88/EEC, for the approximation of the laws, regulations and administrative provisions of the Member States concerning consumer credit.

[56] Davola A. (2019), *The death of traditional consumer law at the crossroads of law, economics and cognitive sciences: a tentative reaction*, PH.D. In Individual Person and Legal Protections, Scuola Superiore Sant'Anna di Studi Universitari e di Perfezionamento, 20.

[57] ART 4, comma 1, Directive 84/45/EEC, available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31984L0450&from=EN].

[58] Sibony, A. L., & Helleringer, G. (2015). EU consumer protection and behavioural sciences. *Nudge and the Law: A European Perspective*, 217.

[59] Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom.

The SEA sought to revise the Treaties of Rome setting up the European Economic Community (EEC) and the European Atomic Energy Community. With the introduction of the Article 100A[60], today replaced by Article 114 TFEU[61], a "high level of protection" toward consumers is finally recognized: "the Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will take as a base a high level of protection".

In 1992, the twelve Member States of the European Communities concluded The Maastricht Treaty, that formally found the European Union (EU). With this new Treaty, a specific title (XI) was dedicated to consumer

[60] Article 18: The EEC Treaty shall be supplemented by the following provisions: 'Article 100a 1. By way of derogation from Article 100 and save where otherwise provided in this Treaty, the following provisions shall apply for the achievement of the objectives set out in Article 8a. The Council shall, acting by a qualified majority on a proposal from the Commission in co-operation with the European Parliament and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market. 2. Paragraph 1 shall not apply to fiscal provisions, to those relating to the free movement of persons nor to those relating to the rights and interests of employed persons. 3. The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and *consumer protection*, will take as a base a *high level of protection* 4. If, after the adoption of a harmonization measure by the Council acting by a qualified majority, a Member State deems it necessary to apply national provisions on grounds of major needs referred to in Article 36, or relating to protection of the environment or the working environment, it shall notify the Commission of these provisions. The Commission shall confirm the provisions involved after having verified that they are not a means of arbitrary discrimination or a disguised restriction on trade between Member States. By way of derogation from the procedure laid down in Articles 169 and 170, the Commission or any Member State may bring the matter directly before the Court of Justice if it considers that another Member State is making improper use of the powers provided for in this Article. 5. The harmonization measures referred to above shall, in appropriate cases, include a safeguard clause authorizing the Member States to take, for one or more of the non-economic reasons referred to in Article 36, provisional measures subject to a Community control procedure.' Single European Act, available at:
[https://eur-lex.europa.eu/resource.html?uri=cellar:a519205f-924a-4978-96a2-b9af8a598b85.0004.02/DOC_1&format=PDF].

[61] Article 114 TFEU (ex-Article 95 TEC) : 1. Save where otherwise provided in the Treaties, the following provisions shall apply for the achievement of the objectives set out in Article 26. The European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market. 2. Paragraph 1 shall not apply to fiscal provisions, to those relating to the free movement of persons nor to those relating to the rights and interests of employed persons. 3. The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will take as a base a high level of protection, taking account in particular of any new development based on scientific facts. Within their respective powers, the European Parliament and the Council will also seek to achieve this objective. 4. If, after the adoption of a harmonisation measure by the European Parliament and the Council, by the Council or by the Commission, a Member State deems it necessary to maintain national provisions on grounds of major needs referred to in Article 36, or relating to the protection of the environment or the working environment, it shall notify the Commission of these provisions as well as the grounds for maintaining them. 5. Moreover, without prejudice to paragraph 4, if, after the adoption of a harmonisation measure by the European Parliament and the Council, by the Council or by the Commission, a Member State deems it necessary to introduce national provisions based on new scientific evidence relating to the protection of the environment or the working environment on grounds of a problem specific to that Member State arising after the adoption of the harmonisation measure, it shall notify the Commission of the envisaged provisions as well as the grounds for introducing them. 6. The Commission shall, within six months of the notifications as referred to in paragraphs 4 and 5, approve or reject the national provisions involved after having verified whether or not they are a means of arbitrary discrimination or a disguised restriction on trade between Member States and whether or not they shall constitute an obstacle to the functioning of the internal market. In the absence of a decision by the Commission within this period the national provisions referred to in paragraphs 4 and 5 shall be deemed to have been approved. When justified by the complexity of the matter and in the absence of danger for human health, the Commission may notify the Member State concerned that the period referred to in this paragraph may be extended for a further period of up to six months. 7. When, pursuant to paragraph 6, a Member State is authorised to maintain or introduce national provisions derogating from a harmonisation measure, the Commission shall immediately examine whether to propose an adaptation to that measure. 8. When a Member State raises a specific problem on public health in a field which has been the subject of prior harmonisation measures, it shall bring it to the attention of the Commission which shall immediately examine whether to propose appropriate measures to the Council. 9. By way of derogation from the procedure laid down in Articles 258 and 259, the Commission and any Member State may bring the matter directly before the Court of Justice of the European Union if it considers that another Member State is making improper use of the powers provided for in this Article. 10. The harmonisation measures referred to above shall, in appropriate cases, include a safeguard clause authorising the Member States to take, for one or more of the non-economic reasons referred to in Article 36, provisional measures subject to a Union control procedure.

protection, containing Article 129A[62], the conferred to the EU Community specific attributions on consumer protection and promote Member States' actions toward consumers' safeguard.

In this time frame, to be acknowledged is the Unfair Contract Terms Directive 93/13/EEC[63] (UTD), still in force, that aims to approximate the laws, regulations and administrative provisions of the Member States relating to unfair terms in contracts concluded between a seller and a consumer.

The preamble of the Directive takes into-account the policy line of the EU Community, outlined in the Preliminary Programme of the European Economic Community for a Consumer Protection and Information Policy of 1975 and in the Second Programme of the European Economic Community of 1981: "whereas the two Community programmes for a consumer protection and information policy underlined the importance of safeguarding consumers in the matter of unfair terms of contract"[64]; what clearly emerges is the importance of information disclosure and transparency, in the context of commercial practices.

Central in the Directive is the principle of fairness; with respect to this, Article 3 of the Directive[65] set out the *test of unfairness*, according to which "a contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer". The principle of fairness will be further explored in paragraphs 1.3 and 1.4 of this analysis.

Moreover, it is relevant to acknowledge Article 5 of the Directive[66], according to which, in the case of contracts where all or certain terms offered to the consumer are in writing, these terms must always be drafted in plain, intelligible language and where there is doubt about the meaning of a term, the interpretation most favourable to the consumer shall prevail. Additionally, according to Article 6 of the Directive[67], any unfair

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[62] Article 129A Treaty on European Union (1992): 1. The Community shall contribute to the attainment of a high level of consumer protection through: (a) measures adopted pursuant to Article l00a in the context of the completion of the internal market; (b) specific action which supports and supplements the policy pursued by the Member States to protect the health, safety and economic interests of consumers and to provide adequate information to consumers. 2. The Council, acting in accordance with the procedure referred to in Article 189b and after consulting the Economic and Social Committee, shall adopt the specific action referred to in paragraph 1(b). 3. Action adopted pursuant to paragraph 2 shall not prevent any Member State maintaining or introducing more stringent protective measures. Such measures must be compatible with this Treaty. The Commission shall be notified of them. Available at [https://europa.eu/european-union/sites/europaeu/files/docs/body/treaty_on_european_union_en.pdf].

[63] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31993L0013&from=EN].

[64] 8th "whereas" Preamble to the Directive 93/13/EC.

[65] Article 3 Directive 93/13/EC: 1. A contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer. 2. A term shall always be regarded as not individually negotiated where it has been drafted in advance and the consumer has therefore not been able to influence the substance of the term, particularly in the context of a pre-formulated standard contract. The fact that certain aspects of a term or one specific term have been individually negotiated shall not exclude the application of this Article to the rest of a contract if an overall assessment of the contract indicates that it is nevertheless a pre-formulated standard contract. Where any seller or supplier claims that a standard term has been individually negotiated, the burden of proof in this respect shall be incumbent on him. 3. The Annex shall contain an indicative and non-exhaustive list of the terms which may be regarded as unfair.

[66] Article 5 Directive 93/13/EC: In the case of contracts where all or certain terms offered to the consumer are in writing, these terms must always be drafted in plain, intelligible language. Where there is doubt about the meaning of a term, the interpretation most favourable to the consumer shall prevail. This rule on interpretation shall not apply in the context of the procedures laid down in Article 7 (2).

[67] Article 6 Directive 93/13/EC: 1. Member States shall lay down that unfair terms used in a contract concluded with a consumer by a seller or supplier shall, as provided for under their national law, not be binding on the consumer and that the contract shall continue to bind the parties upon those terms if it is capable of continuing in existence without the unfair terms. 2. Member States shall take the necessary measures to ensure that the consumer does not lose the protection granted by this Directive by virtue of the choice of the law of a non-Member country as the law applicable to the contract if the latter has a close connection with the territory of the Member States.

terms used in a contract concluded between a seller or supplier and a consumer shall be prohibited; with respect to this, Member States shall ensure that unfair terms in a contract are not binding on the consumer and the contract shall continue to exist only if it is capable of continuing in existence without the unfair terms.

In 1997, the EU Institutions implemented The Treaty of Amsterdam, that represented a real turning point in the Community legal framework, allowing the different targets of the single EU Member States to finally match. The Treaty of Amsterdam matters also since a "European citizenship" definition was finally given, not only in the legal and formal sense but also in the social sense[68]: "citizenship of the Union is hereby established. Every person holding the nationality of a Member State shall be a citizen of the Union. Citizenship of the Union shall complement and not replace national citizenship."[69] The Treaty allowed to create the basis for an identical treatment of all the European consumers within the Union.

Additionally, Article 153[70] of the Treaty of Amsterdam (replacing Article 129a of the Maastricht Treaty) stresses the EU commitment to "promote the interests of consumers and to ensure a high level of consumer protection". The use of the verb "promote" implies that the EU started to assume a propulsive approach in the defence of consumer's rights, that needed to be strengthened and balanced with the interests of market operators (e.g., professionals). "The new Treaty also explicitly recognises the increasing inter-linkages between consumer interests and other market and public policy interests. Article 153(2) is a 'horizontal' clause which obliges the EU Institutions to take consumer requirements into account in defining and implementing other EU policies and activities"[71].

In 1998, the EU Parliament, together with the Council, promoted the Directive 98/6/EC[72] on consumer protection in the indication of the prices of products offered to consumers (i.e., Pricing Directive). The aim of the Directive, still in force, is to ensure transparency and clarity of prices within the internal market, establishing the obligation to indicate the selling price and the price per unit of measurement of products offered by traders to consumers in order to improve *consumer information* and to facilitate the comparison of prices. In the Directive, the transparent operation of the market and the correct information are recognized as

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[68] Alpa, G., & Catricalà, A. (Eds.). (2016). *Diritto dei consumatori*. Il mulino, 65.
[69] Article 8(1) shall be replaced by the following: '1. Citizenship of the Union is hereby established. Every person holding the nationality of a Member State shall be a citizen of the Union. Citizenship of the Union shall complement and not replace national citizenship.' Treaty establishing the European Community (Amsterdam consolidated version), available at [https://www.europarl.europa.eu/topics/treaty/pdf/amst-en.pdf].
[70] Article 153 Treaty establishing the European Community (Amsterdam consolidated version): Article 129a shall be replaced by the following: Article 129a 1. In order to promote the interests of consumers and to ensure a high level of consumer protection, the Community shall contribute to protecting the health, safety and economic interests of consumers, as well as to promoting their right to information, education and to organize themselves in order to safeguard their interests. 2. Consumer protection requirements shall be taken into-account in defining and implementing other Community policies and activities. 3. The Community shall contribute to the attainment of the objectives referred to in paragraph 1 through: (a) measures adopted pursuant to Article 100a in the context of the completion of the internal market; (b) measures which support, supplement and monitor the policy pursued by the Member States 4. The Council, acting in accordance with the procedure referred to in Article 189b and after consulting the Economic and Social Committee, shall adopt the measures referred to in paragraph 3(b). 5. Measures adopted pursuant to paragraph 4 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with this Treaty. The Commission shall be notified of them. Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:11997E153&from=EN].
[71] Consumer Policy Action Plan 1999-2001 – Communication from the Commission, Brussels, 01.12.1998 COM(1998) 696 final, available at [http://aei.pitt.edu/6657/1/6657.pdf].
[72] Available at [https://eur-lex.europa.eu/resource.html?uri=cellar:b8fd669f-e013-4f8a-a9e1-2ff0dfee7de6.0008.02/DOC_1&format=PDF].

being beneficial to consumer protection and to healthy competition between enterprises and products within the internal market.

1.2.3 At the turn of the 21st century and the digitalization: from the consumer to the *prosumer*

Before discussing about EU initiatives in terms of consumer protection at the turn of the 21st century, it is relevant to illustrate societal and market changes before and within that period.

At the beginning of the new century, literature on *prosumption* gained particular centrality, as a result of the advent of Web 2.0 technologies and, hereafter, of social media. Prosumption finds its origin in the second half of the 20th century, after the II World War. Up to that moment the consumer was seen as an ultra-passive subject within the market, whereas firms were totally in charge of deciding, designing, manufacturing/producing, marketing and distributing goods and services. The consumer was pushed into the mere role of buyer, without any influence on the production process.

Things started to change at the end of the 70s, with the development of new business models, which involved some degree of consumer participation: for instance, fast-food restaurants and flat packed furniture. The consumer was progressively involved in the production process through the "do it your-self" (DIY) activities, such as self-service, self-help and self-repair. In 1981, Toffler coined the term "prosumer" as a portmanteau word of producer and consumer, reflecting this new production model.

However, only with the development of digital technologies, this phenomenon has fully matured: the progressive diffusion of these new technologies, in particular, after the Internet 'boom' of the mid 1990s, "has radically and durably changed the relationship between users and firms. Indeed, a common trait of all digital technologies is that that they empower users, and in particular consumers, with the ability to create, replicate, distribute and (in some instances) commercialise"[73]. Beer and Burrows see new relations between production and consumption emerging online, especially on Web 2.0[74]. Web 2.0 is contrasted to Web 1.0 (e.g., AOL, Yahoo), which was (and still is) provider- rather than user-generated. "Web 2.0 is defined by the ability of users to produce content collaboratively, whereas most of what exists on Web 1.0 is provider-generated. It is on Web 2.0 that there has been a dramatic explosion in prosumption. It can be argued that Web 2.0 should be seen as crucial in the development of the 'means of prosumption'; Web 2.0 facilitates the implosion of production and consumption"[75].

From a European policy making point of view, at the turn of the 21st century, the Commission set out the "Consumer Policy Action Plan 1999-2001", stressing out that "the twin forces of the globalisation of markets

[73] Rayna, T., & Striukova, L. (2016). Involving consumers: the role of digital technologies in promoting 'prosumption'and user innovation. Journal of the Knowledge Economy, 2.
[74] "Web 2.0, term devised to differentiate the post-dotcom bubble World Wide Web with its emphasis on social networking, content generated by users, and cloud computing from that which came before. The 2.0 appellation is used in analogy with common computer software naming conventions to indicate a new, improved version. The term had its origin in the name given to a series of Web conferences, first organized by publisher Tim O'Reilly in 2004" Britannica [https://www.britannica.com/topic/Web-20].
[75] Ritzer, G., & Jurgenson, N. (2010). Production, consumption, prosumption: The nature of capitalism in the age of the digital 'prosumer'. Journal of consumer culture, 10(1), 19.

and the wide dissemination of new communication and information processing technologies set in train significant economic and social changes"[76]. A closer, more cooperative relationship between consumers and businesses, acting as equal partners, was considered as being essential. Hence, the Commission pointed out the need to balance the different interests within the market, supporting and developing consumer protection, with the aim to reach economic prosperity. This reinforced approach toward consumer protection was further emphasised in the "Consumer Policy Strategy 2002-2006", that set out the Commission's strategy for consumer policy at the European level over the period 2002-2006.

Reflecting this approach, new directives and regulations have been enacted over the last 20 years within the EU legal framework. First off, the coordination between Member States within the field of consumer protection, envisaged in the Treaty of Amsterdam, was enhanced with the introduction of the Unfair Commercial Practices Directive (Directive 2005/29/EC)[77] (UCPD). "In 2005, the EU legislator made a clear choice in the UCPD for *full harmonization*. Within the scope of the UCPD, as determined by Article 3 UCPD, Member States can no longer introduce national measures that offer more (or less) protection than is offered by this Directive"[78]. Full harmonisation is fundamental to take away barriers for businesses, allowing them to market their products within the internal market without having to comply with different rules in each Member State.

The UCPD concerns unfair business-to-consumer (B2C) commercial practices in the internal market; the aim of the Directive is not only to protect consumers from unfair commercial practices, but also to promote transnational activities within the internal market: "in accordance with Article 14(2) of the Treaty, the internal market comprises an area without internal frontiers in which the free movement of goods and services and freedom of establishment are ensured. The development of fair commercial practices within the area without internal frontiers is vital for the promotion of the development of cross border activities"[79]. It is possible to notice a link between consumer protection and the construction of a competitive internal market, made possible by the principle of *fairness*, central in the European legal framework, as will be explained in paragraphs 1.3 and 1.4 of this analysis.

According to Article 5 of the Directive[80], unfair commercial practices shall be prohibited; a commercial practice shall be unfair if it is contrary to the requirements of professional diligence *and* materially distorts, or

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[76] Consumer Policy Action Plan 1999-2001 – Communication from the Commission, Brussels, 01.12.1998 COM(1998) 696 final, available at [http://aei.pitt.edu/6657/1/6657.pdf].

[77] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32005L0029&from=EN]

[78] Duivenvoorde, B. (2019). The Upcoming Changes in the Unfair Commercial Practices Directive: A Better Deal for Consumers? *Journal of European Consumer and Market Law*, *8*(6).

[79] 2nd "whereas" Preamble to the Unfair Commercial Practices Directive

[80] Article 5 UCPD - Prohibition of unfair commercial practices: 1. Unfair commercial practices shall be prohibited. 2. A commercial practice shall be unfair if: (a) it is contrary to the requirements of professional diligence, and (b) it materially distorts or is likely to materially distort the economic behaviour with regard to the product of the average consumer whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers. 3. Commercial practices which are likely to materially distort the economic behaviour only of a clearly identifiable group of consumers who are particularly vulnerable to the practice or the underlying product because of their mental or physical infirmity, age or credulity in a way which the trader could reasonably be expected to foresee, shall be assessed from the perspective of the average member of that group. This is without prejudice to the common and legitimate advertising practice of making exaggerated statements or statements which are not meant to be taken literally. 4. In particular, commercial practices shall be unfair which: (a) are misleading as set out in Articles 6

it is likely to materially distort, the economic behaviour with regard to the product of the *average consumer* whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers. Enhanced safeguard is given to particularly *vulnerable consumers* because of their mental or physical infirmity, age or credulity; in this case the misleading nature of the practice is assessed from the perspective of the average member of that group.

Commercial practices shall be considered unfair if they are misleading, according to Article 6 and 7 of the UCPD, or if they are aggressive according to Article 8 and 9.

Following Article 6 of the Directive[81], a commercial practice shall be regarded as misleading if it contains false information and is therefore untruthful or deceives or is likely to deceive the average consumer, even if the information is factually correct. Additionally, according to Article 7[82], a commercial practice shall be

and 7, or (b) are aggressive as set out in Articles 8 and 9. 5. Annex I contains the list of those commercial practices which shall in all circumstances be regarded as unfair. The same single list shall apply in all Member States and may only be modified by revision of this Directive.

[81] Article 6 UCPD - Misleading actions: 1. A commercial practice shall be regarded as misleading if it contains false information and is therefore untruthful or in any way, including overall presentation, deceives or is likely to deceive the average consumer, even if the information is factually correct, in relation to one or more of the following elements, and in either case causes or is likely to cause him to take a transactional decision that he would not have taken otherwise: (a) the existence or nature of the product; (b) the main characteristics of the product, such as its availability, benefits, risks, execution, composition, accessories, after-sale customer assistance and complaint handling, method and date of manufacture or provision, delivery, fitness for purpose, usage, quantity, specification, geographical or commercial origin or the results to be expected from its use, or the results and material features of tests or checks carried out on the product; (c) the extent of the trader's commitments, the motives for the commercial practice and the nature of the sales process, any statement or symbol in relation to direct or indirect sponsorship or approval of the trader or the product; (d) the price or the manner in which the price is calculated, or the existence of a specific price advantage; (e) the need for a service, part, replacement or repair; (f) the nature, attributes and rights of the trader or his agent, such as his identity and assets, his qualifications, status, approval, affiliation or connection and ownership of industrial, commercial or intellectual property rights or his awards and distinctions; (g) the consumer's rights, including the right to replacement or reimbursement under Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees (1), or the risks he may face. 2. A commercial practice shall also be regarded as misleading if, in its factual context, taking account of all its features and circumstances, it causes or is likely to cause the average consumer to take a transactional decision that he would not have taken otherwise, and it involves: (a) any marketing of a product, including comparative advertising, which creates confusion with any products, trademarks, trade names or other distinguishing marks of a competitor; (b) non-compliance by the trader with commitments contained in codes of conduct by which the trader has undertaken to be bound, where: (i) the commitment is not aspirational but is firm and is capable of being verified, and (ii) the trader indicates in a commercial practice that he is bound by the code.

[82] Article 7 UCPD - Misleading omissions: 1. A commercial practice shall be regarded as misleading if, in its factual context, taking account of all its features and circumstances and the limitations of the communication medium, it omits material information that the average consumer needs, according to the context, to take an informed transactional decision and thereby causes or is likely to cause the average consumer to take a transactional decision that he would not have taken otherwise. 2. It shall also be regarded as a misleading omission when, taking account of the matters described in paragraph 1, a trader hides or provides in an unclear, unintelligible, ambiguous or untimely manner such material information as referred to in that paragraph or fails to identify the commercial intent of the commercial practice if not already apparent from the context, and where, in either case, this causes or is likely to cause the average consumer to take a transactional decision that he would not have taken otherwise. 3. Where the medium used to communicate the commercial practice imposes limitations of space or time, these limitations and any measures taken by the trader to make the information available to consumers by other means shall be taken into-account in deciding whether information has been omitted. 4. In the case of an invitation to purchase, the following information shall be regarded as material, if not already apparent from the context: (a) the main characteristics of the product, to an extent appropriate to the medium and the product; (b) the geographical address and the identity of the trader, such as his trading name and, where applicable, the geographical address and the identity of the trader on whose behalf he is acting; (c) the price inclusive of taxes, or where the nature of the product means that the price cannot reasonably be calculated in advance, the manner in which the price is calculated, as well as, where appropriate, all additional freight, delivery or postal charges or, where these charges cannot reasonably be calculated in advance, the fact that such additional charges may be payable; (d) the arrangements for payment, delivery, performance and the complaint handling policy, if they depart from the requirements of professional diligence; (e) for products and transactions involving a right of withdrawal or cancellation, the existence of such a right. 5. Information requirements established by Community law in relation to commercial communication including advertising or marketing, a non-exhaustive list of which is contained in Annex II, shall be regarded as material.

considered as misleading if it omits material information the *average consumer* needs to take an *informed* transactional decision.

On the other hand, commercial practice shall be considered as aggressive if it significantly impairs or is likely to significantly impair the *average consumer*'s freedom of choice, by harassment, coercion, including the use of physical force or undue influence (Article 8 UCPD[83]).

Article 9 of the Directive[84] sets out the conditions to determine whether a commercial practice uses harassment, coercion, including the use of physical force, or undue influence, among which the timing, location, nature or persistence of the commercial practice and threatening or abusive language or behaviour. Finally, Annex I of the Directive contains a non-exhaustive list of the commercial practices which are in all circumstances considered unfair.

What significantly emerges from the UCPD is the figure of the average consumer, that was formalized in this context, but that finds its origins in previous proceedings of the European Court of Justice, particularly in the *Gut Springenheide* case (1998), that will be further analysed later on.

In 2006, the Services Directive (2006/123/EC) was enacted by the European Parliament. With this directive, the European Community aimed to "forge ever closer links between the States and peoples of Europe and to ensure economic and social progress"[85], promoting the freedom of establishment, in accordance with Article 43 TEC[86] (today Art. 49 TFEU[87]) and the right to provide services within the Community, without restrictions, in line with Article 49 TEC[88] (56 TFEU[89]). This Directive does not specifically address consumer

[83] Article 8 UCPD- Aggressive commercial practices: A commercial practice shall be regarded as aggressive if, in its factual context, taking account of all its features and circumstances, by harassment, coercion, including the use of physical force, or undue influence, it 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.

[84] Article 9 UCPD- Use of harassment, coercion and undue influence: In determining whether a commercial practice uses harassment, coercion, including the use of physical force, or undue influence, account shall be taken of: (a) its timing, location, nature or persistence; (b) the use of threatening or abusive language or behaviour; (c) the exploitation by the trader of any specific misfortune or circumstance of such gravity as to impair the consumer's judgement, of which the trader is aware, to influence the consumer's decision with regard to the product; (d) any onerous or disproportionate non-contractual barriers imposed by the trader where a consumer wishes to exercise rights under the contract, including rights to terminate a contract or to switch to another product or another trader; (e) any threat to take any action that cannot legally be taken.

[85] Introduction, comma 1, Services Directive available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006L0123&from=EN].

[86] Article 43 TEC: Within the framework of the provisions set out below, restrictions on the freedom of establishment of nationals of a Member State in the territory of another Member State shall be prohibited. Such prohibition shall also apply to restrictions on the setting-up of agencies, branches or subsidiaries by nationals of any Member State established in the territory of any Member State. Freedom of establishment shall include the right to take up and pursue activities as self-employed persons and to set up and manage undertakings, in particular companies or firms within the meaning of the second paragraph of Article 48, under the conditions laid down for its own nationals by the law of the country where such establishment is effected, subject to the provisions of the Chapter relating to capital.

[87] Article 49 TFEU: Within the framework [….]. Freedom of establishment shall include the right to take up and pursue activities as self-employed persons and to set up and manage undertakings, in particular companies or firms within the meaning of the second paragraph of Article 54, under the conditions laid down for its own nationals by the law of the country where such establishment is effected, subject to the provisions of the Chapter relating to capital.

[88] Article 49 TEC: Within the framework of the provisions set out below, restrictions on freedom to provide services within the Community shall be prohibited in respect of nationals of Member States who are established in a State of the Community other than that of the person for whom the services are intended. The Council may, acting by a qualified majority on a proposal from the Commission, extend the provisions of the Chapter to nationals of a third country who provide services and who are established within the Community.

[89] Article 56 TFEU: Within the framework […]. The European Parliament and the Council, acting in accordance with the ordinary legislative procedure, may extend the provisions of the Chapter to nationals of a third country who provide services and who are established within the Union.

protection; however, consumer protection is considered among overriding reasons relating to the public interest, that may justify the application of authorisation schemes[90] and other restrictions.

After the ratification of the Treaty of Lisbon in 2007, which entered into force in 2009, the legal framework for consumer protection is transposed into Articles 12[91] and 169 TFEU[92], without significant substantial changes. The only novelty to be acknowledged is the inclusion of consumer protection within the shared competence between the Union and the Member States, listed in Article 4 par. 2, of the TFEU[93].

In this sense, the principle of subsidiarity, stated in Article 5 par. 3 TFEU[94], finds application, with the particularity that the allocation of competences is ruled on the basis of the highest possible attainable protection: the state intervention will be justified and maintained only if the implemented consumer protection measures are more vigorous than the EU ones[95].

Finally, particularly relevant in the field of consumer protection, is the recent Directive 2011/83/EU[96] on consumer rights, still in force. The Consumer Rights Directive (CRD) regulates any contract concluded between a trader and a consumer, both in presence, distance and off-premises contracts. It shall also apply to contracts for the supply of water, gas, electricity or district heating, including by public providers, to the extent that these commodities are provided on a contractual basis. To be acknowledged are Chapter II on consumer information for contracts other than distance or off-premises contracts and Chapter III on consumer information and right of withdrawal for distance and off-premises contracts.

Article 5[97] of Chapter II lists all the relevant information the trader shall provide the consumer in a clear and comprehensible manner, before the consumer is bound by the contract; among the relevant information,

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[90] "The concept of 'authorisation scheme' should cover, inter alia, the administrative procedures for granting authorisations, licences, approvals or concessions, and also the obligation, in order to be eligible to exercise the activity, to be registered as a member of a profession or entered in a register, roll or database, to be officially appointed to a body or to obtain a card attesting to membership of a particular profession. Authorisation may be granted not only by a formal decision but also by an implicit decision arising, for example, from the silence of the competent authority or from the fact that the interested party must await acknowledgement of receipt of a declaration in order to commence the activity in question or for the latter to become lawful" Introduction, comma 39, Services Directive.

[91] Article 12 (ex-Article 153(2) TEC) TFEU: consumer protection requirements shall be taken into-account in defining and implementing other Union policies and activities.

[92] Article 169 (ex-Article 153 TEC) TFEU: 1. In order to promote the interests of consumers and to ensure a high level of consumer protection, the Union shall contribute to protecting the health, safety and economic interests of consumers, as well as to promoting their right to information, education and to organise themselves in order to safeguard their interests. 2. The Union shall contribute to the attainment of the objectives referred to in paragraph 1 through: (a) measures adopted pursuant to Article 114 in the context of the completion of the internal market; (b) measures which support, supplement and monitor the policy pursued by the Member States. 3. The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, shall adopt the measures referred to in paragraph 2(b). 4. Measures adopted pursuant to paragraph 3 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with the Treaties. The Commission shall be notified of them.

[93] "Shared competence between the Union and the Member States applies in the following principal areas: (a) internal market; (b) social policy, for the aspects defined in this Treaty; (c) economic, social and territorial cohesion; (d) agriculture and fisheries, excluding the conservation of marine biological resources; (e) environment; (f) consumer protection; (g) transport; (h) trans-European networks; (i) energy; area of freedom, (j) security and justice; (k) common safety concerns in public health matters, for the aspects defined in this Treaty" Art. 4, par. 2, TFEU.

[94] "The Union may take initiatives to ensure coordination of Member States' social policies" Article 5, par. 3, TFEU.

[95] Alpa, G., & Catricalà, A. (Eds.). (2016). *Diritto dei consumatori*. Il mulino, 66/67.

[96] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0083&from=EN].

[97] Article 5 CRD - Information requirements for contracts other than distance or off-premises contracts 1. Before the consumer is bound by a contract other than a distance or an off-premises contract, or any corresponding offer, the trader shall provide the consumer with the following information in a clear and comprehensible manner, if that information is not already apparent from the context: (a) the main characteristics of the goods or services, to the extent appropriate to the medium and to the goods or services; (b) the identity of the trader, such as his trading name, the geographical address at which he is established and his telephone number; (c) the total price of

Article 5 identifies: the identity and related data of the professional, the main characteristics of the product, the total price of the goods and services and all the sales arrangements (payment methods, delivery times and performance, after-sale services, duration of the contract and the withdrawal conditions).

Chapter III, on the other hand, concerns distance and off-premises contracts and presents all the information requirements, as well as necessary formal requirements. In this section, Article 6[98], of the

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the goods or services inclusive of taxes, or where the nature of the goods or services is such that the price cannot reasonably be calculated in advance, the manner in which the price is to be calculated, as well as, where applicable, all additional freight, delivery or postal charges or, where those charges cannot reasonably be calculated in advance, the fact that such additional charges may be payable; (d) where applicable, the arrangements for payment, delivery, performance, the time by which the trader undertakes to deliver the goods or to perform the service, and the trader's complaint handling policy; (e) in addition to a reminder of the existence of a legal guarantee of conformity for goods, the existence and the conditions of after-sales services and commercial guarantees, where applicable; (f) the duration of the contract, where applicable, or, if the contract is of indeterminate duration or is to be extended automatically, the conditions for terminating the contract; (g) where applicable, the functionality, including applicable technical protection measures, of digital content; (h) where applicable, any relevant interoperability of digital content with hardware and software that the trader is aware of or can reasonably be expected to have been aware of. 2. Paragraph 1 shall also apply to contracts for the supply of water, gas or electricity, where they are not put up for sale in a limited volume or set quantity, of district heating or of digital content which is not supplied on a tangible medium. 3. Member States shall not be required to apply paragraph 1 to contracts which involve day-to-day transactions and which are performed immediately at the time of their conclusion. 4. Member States may adopt or maintain additional pre- contractual information requirements for contracts to which this Article applies.

[98] Article 6 CRD - Information requirements for distance and off-premises contracts: 1. Before the consumer is bound by a distance or off- premises contract, or any corresponding offer, the trader shall provide the consumer with the following information in a clear and comprehensible manner: (a) the main characteristics of the goods or services, to the extent appropriate to the medium and to the goods or services; (b) the identity of the trader, such as his trading name; (c) the geographical address at which the trader is established and the trader's telephone number, fax number and e-mail address, where available, to enable the consumer to contact the trader quickly and communicate with him efficiently and, where applicable, the geographical address and identity of the trader on whose behalf he is acting; (d) if different from the address provided in accordance with point (c), the geographical address of the place of business of the trader, and, where applicable, that of the trader on whose behalf he is acting, where the consumer can address any complaints; (e) the total price of the goods or services inclusive of taxes, or where the nature of the goods or services is such that the price cannot reasonably be calculated in advance, the manner in which the price is to be calculated, as well as, where applicable, all additional freight, delivery or postal charges and any other costs or, where those charges cannot reasonably be calculated in advance, the fact that such additional charges may be payable. In the case of a contract of indeterminate duration or a contract containing a subscription, the total price shall include the total costs per billing period. Where such contracts are charged at a fixed rate, the total price shall also mean the total monthly costs. Where the total costs cannot be reasonably calculated in advance, the manner in which the price is to be calculated shall be provided; (f) the cost of using the means of distance communication for the conclusion of the contract where that cost is calculated other than at the basic rate; (g) the arrangements for payment, delivery, performance, the time by which the trader undertakes to deliver the goods or to perform the services and, where applicable, the trader's complaint handling policy; (h) where a right of withdrawal exists, the conditions, time limit and procedures for exercising that right in accordance with Article 11(1), as well as the model withdrawal form set out in Annex I(B); (i) where applicable, that the consumer will have to bear the cost of returning the goods in case of withdrawal and, for distance contracts, if the goods, by their nature, cannot normally be returned by post, the cost of returning the goods; (j) that, if the consumer exercises the right of withdrawal after having made a request in accordance with Article 7(3) or Article 8(8), the consumer shall be liable to pay the trader reasonable costs in accordance with Article 14(3); (k) where a right of withdrawal is not provided for in accordance with Article 16, the information that the consumer will not benefit from a right of withdrawal or, where applicable, the circumstances under which the consumer loses his right of withdrawal; (l) a reminder of the existence of a legal guarantee of conformity for goods; (m) where applicable, the existence and the conditions of after sale customer assistance, after-sales services and commercial guarantees; (n) the existence of relevant codes of conduct, as defined in point (f) of Article 2 of Directive 2005/29/EC, and how copies of them can be obtained, where applicable; (o) the duration of the contract, where applicable, or, if the contract is of indeterminate duration or is to be extended automatically, the conditions for terminating the contract; (p) where applicable, the minimum duration of the consumer's obligations under the contract;

(q) where applicable, the existence and the conditions of deposits or other financial guarantees to be paid or provided by the consumer at the request of the trader; (r) where applicable, the functionality, including applicable technical protection measures, of digital content; (s) where applicable, any relevant interoperability of digital content with hardware and software that the trader is aware of or can reasonably be expected to have been aware of; (t) where applicable, the possibility of having recourse to an out-of-court complaint and redress mechanism, to which the trader is subject, and the methods for having access to it. 2. Paragraph 1 shall also apply to contracts for the supply of water, gas or electricity, where they are not put up for sale in a limited volume or set quantity, of district heating or of digital content which is not supplied on a tangible medium. 3. In the case of a public auction, the information referred to in points (b), (c) and (d) of paragraph 1 may be replaced by the equivalent details for the auctioneer. 4. The information referred to in points (h), (i) and (j) of paragraph 1 may be provided by means of the model instructions on withdrawal set out in Annex I(A). The trader shall have fulfilled the information requirements laid down in points (h), (i) and (j) of paragraph 1 if he has supplied these instructions to the consumer, correctly filled in. 5. The information referred to in paragraph 1 shall form an integral part of the distance or off premises contract and shall not be altered unless the contracting parties expressly agree otherwise. 6. If the trader has not complied with the

Directive imposes specific additional information requirements, for both distance and off premises contracts (points from "a" to "t" of Article 6);

whereas Article 7[99] and Article 8[100] focus on formal requirements necessary for off premises contracts and for distance contracts, respectively.

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information requirements on additional charges or other costs as referred to in point (e) of paragraph 1, or on the costs of returning the goods as referred to in point (i) of paragraph 1, the consumer shall not bear those charges or costs. 7. Member States may maintain or introduce in their national law language requirements regarding the contractual information, so as to ensure that such information is easily understood by the consumer. 8. The information requirements laid down in this Directive are in addition to information requirements contained in Directive 2006/123/EC and Directive 2000/31/EC and do not prevent Member States from imposing additional information requirements in accordance with those Directives. Without prejudice to the first subparagraph, if a provision of Directive 2006/123/EC or Directive 2000/31/EC on the content and the manner in which the information is to be provided conflicts with a provision of this Directive, the provision of this Directive shall prevail. 9. As regards compliance with the information requirements laid down in this Chapter, the burden of proof shall be on the trader.

[99] Article 7 CRD - Formal requirements for off-premises contracts: 1. With respect to off-premises contracts, the trader shall give the information provided for in Article 6(1) to the consumer on paper or, if the consumer agrees, on another durable medium. That information shall be legible and in plain, intelligible language. 2. The trader shall provide the consumer with a copy of the signed contract or the confirmation of the contract on paper or, if the consumer agrees, on another durable medium, including, where applicable, the confirmation of the consumer's prior express consent and acknowledgement in accordance with point (m) of Article 16. 3. Where a consumer wants the performance of services or the supply of water, gas or electricity, where they are not put up for sale in a limited volume or set quantity, or of district heating to begin during the withdrawal period provided for in Article 9(2), the trader shall require that the consumer makes such an express request on a durable medium EN L 304/76 Official Journal of the European Union 22.11.2011 4. With respect to off-premises contracts where the consumer has explicitly requested the services of the trader for the purpose of carrying out repairs or maintenance for which the trader and the consumer immediately perform their contractual obligations and where the payment to be made by the consumer does not exceed EUR 200: (a) the trader shall provide the consumer with the information referred to in points (b) and (c) of Article 6(1) and information about the price or the manner in which the price is to be calculated together with an estimate of the total price, on paper or, if the consumer agrees, on another durable medium. The trader shall provide the information referred to in points (a), (h) and (k) of Article 6(1), but may choose not to provide it on paper or another durable medium if the consumer expressly agrees; (b) the confirmation of the contract provided in accordance with paragraph 2 of this Article shall contain the information provided for in Article 6(1). Member States may decide not to apply this paragraph. 5. Member States shall not impose any further formal pre-contractual information requirements for the fulfilment of the information obligations laid down in this Directive.

[100] Article 8 CRD - Formal requirements for distance contracts: 1. With respect to distance contracts, the trader shall give the information provided for in Article 6(1) or make that information available to the consumer in a way appropriate to the means of distance communication used in plain and intelligible language. In so far as that information is provided on a durable medium, it shall be legible. 2. If a distance contract to be concluded by electronic means places the consumer under an obligation to pay, the trader shall make the consumer aware in a clear and prominent manner, and directly before the consumer places his order, of the information provided for in points (a), (e), (o) and (p) of Article 6(1). The trader shall ensure that the consumer, when placing his order, explicitly acknowledges that the order implies an obligation to pay. If placing an order entails activating a button or a similar function, the button or similar function shall be labelled in an easily legible manner only with the words 'order with obligation to pay' or a corresponding unambiguous formulation indicating that placing the order entails an obligation to pay the trader. If the trader has not complied with this subparagraph, the consumer shall not be bound by the contract or order.

3. Trading websites shall indicate clearly and legibly at the latest at the beginning of the ordering process whether any delivery restrictions apply and which means of payment are accepted. 4. If the contract is concluded through a means of distance communication which allows limited space or time to display the information, the trader shall provide, on that particular means prior to the conclusion of such a contract, at least the pre-contractual information regarding the main characteristics of the goods or services, the identity of the trader, the total price, the right of withdrawal, the duration of the contract and, if the contract is of indeterminate duration, the conditions for terminating the contract, as referred to in points (a), (b), (e), (h) and (o) of Article 6(1). The other information referred to in Article 6(1) shall be provided by the trader to the consumer in an appropriate way in accordance with paragraph 1 of this Article. 5. Without prejudice to paragraph 4, if the trader makes a telephone call to the consumer with a view to concluding a distance contract, he shall, at the beginning of the conversation with the consumer, disclose his identity and, where applicable, the identity of the person on whose behalf he makes that call, and the commercial purpose of the call. 6. Where a distance contract is to be concluded by telephone, Member States may provide that the trader has to confirm the offer to the consumer who is bound only once he has signed the offer or has sent his written consent. Member States may also provide that such confirmations have to be made on a durable medium. 7. The trader shall provide the consumer with the confirmation of the contract concluded, on a durable medium within a reasonable time after the conclusion of the distance contract, and at the latest at the time of the delivery of the goods or before the performance of the service begins. That confirmation shall include: (a) all the information referred to in Article 6(1) unless the trader has already provided that information to the consumer on a durable medium prior to the conclusion of the distance contract; and (b) where applicable, the confirmation of the consumer's prior express consent and acknowledgment in accordance with point (m) of Article 16. 8. Where a consumer wants the performance of services, or the supply of water, gas or electricity, where they are not put up for sale in a limited volume or set quantity, or of district heating, to begin during the withdrawal period provided for in Article 9(2), the trader shall require that the consumer make an express request. 9. This Article shall be without prejudice to the provisions on the conclusion of e-contracts

What clearly emerges is the idea of *information disclosure* as a major tool to fill the gap between the trader and the consumer, assuming the idea of a rational consumer that acts for her own interest.

There are at least other two aspects that deserve to be analysed. First off, the *right of withdrawal* recognized to the consumer in Article 9[101] of the Directive: she can withdraw from off-premises contracts within fourteen days of delivery of the goods or the conclusion of the service contract without any explanation or cost (with some exceptions[102]). In order to make the exercise of the withdrawal right possible, the trader needs to provide the consumer with a model withdrawal form. If the trader has not provided the consumer with the information on the right of withdrawal, the withdrawal period shall expire 12 months from the end of the initial withdrawal period, as determined in accordance with Article 9(2).

Second aspect that deserves attention is *consent*: especially in case of off-premises and distance contracts, consent cannot be presumed. In case of off-premises contracts, the trader shall provide the consumer with a copy of the signed contract or the confirmation of the contract on paper or, if the consumer agrees, on another durable medium, including, where applicable, the confirmation of the consumer's prior express consent. In

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and the placing of e-orders set out in Articles 9 and 11 of Directive 2000/31/EC. 10. Member States shall not impose any further formal pre- contractual information requirements for the fulfilment of the information obligations laid down in this Directive.

[101] Article 9 CRD - Right of withdrawal: 1. Save where the exceptions provided for in Article 16 apply, the consumer shall have a period of 14 days to withdraw from a distance or off-premises contract, without giving any reason, and without incurring any costs other than those provided for in Article 13(2) and Article 14. 2. Without prejudice to Article 10, the withdrawal period referred to in paragraph 1 of this Article shall expire after 14 days from: (a) in the case of service contracts, the day of the conclusion of the contract; (b) in the case of sales contracts, the day on which the consumer or a third party other than the carrier and indicated by the consumer acquires physical possession of the goods or: (i) in the case of multiple goods ordered by the consumer in one order and delivered separately, the day on which the consumer or a third party other than the carrier and indicated by the consumer acquires physical possession of the last good; (ii) in the case of delivery of a good consisting of multiple lots or pieces, the day on which the consumer or a third party other than the carrier and indicated by the consumer acquires physical possession of the last lot or piece;
(iii) in the case of contracts for regular delivery of goods during defined period of time, the day on which the consumer or a third party other than the carrier and indicated by the consumer acquires physical possession of the first good; (c) in the case of contracts for the supply of water, gas or electricity, where they are not put up for sale in a limited volume or set quantity, of district heating or of digital content which is not supplied on a tangible medium, the day of the conclusion of the contract. 3. The Member States shall not prohibit the contracting parties from performing their contractual obligations during the withdrawal period. Nevertheless, in the case of off-premises contracts, Member States may maintain existing national legislation prohibiting the trader from collecting the payment from the consumer during the given period after the conclusion of the contract.

[102] For instance, goods that are not suitable for return due to health protection and hygiene reasons, goods not separable from other items or service contracts after the service has been fully performed if the performance has begun with the consumer's prior express consent. For all the exceptions see Article 16 of the Consumer Rights Directive. Article 16 CRD- Exceptions from the right of withdrawal: Member States shall not provide for the right of withdrawal set out in Articles 9 to 15 in respect of distance and off-premises contracts as regards the following: (a) service contracts after the service has been fully performed if the performance has begun with the consumer's prior express consent, and with the acknowledgement that he will lose his right of withdrawal once the contract has been fully performed by the trader; (b) the supply of goods or services for which the price is dependent on fluctuations in the financial market which cannot be controlled by the trader and which may occur within the withdrawal period; (c) the supply of goods made to the consumer's specifications or clearly personalised; (d) the supply of goods which are liable to deteriorate or expire rapidly; (e) the supply of sealed goods which are not suitable for return due to health protection or hygiene reasons and were unsealed after delivery; (f) the supply of goods which are, after delivery, according to their nature, inseparably mixed with other items; (g) the supply of alcoholic beverages, the price of which has been agreed upon at the time of the conclusion of the sales contract, the delivery of which can only take place after 30 days and the actual value of which is dependent on fluctuations in the market which cannot be controlled by the trader; (h) contracts where the consumer has specifically requested a visit from the trader for the purpose of carrying out urgent repairs or maintenance. If, on the occasion of such visit, the trader provides services in addition to those specifically requested by the consumer or goods other than replacement parts necessarily used in carrying out the maintenance or in making the repairs, the right of withdrawal shall apply to those additional services or goods; (i) the supply of sealed audio or sealed video recordings or sealed computer software which were unsealed after delivery; (j) the supply of a newspaper, periodical or magazine with the exception of subscription contracts for the supply of such publications; (k) contracts concluded at a public auction; (l) the provision of accommodation other than for residential purpose, transport of goods, car rental services, catering or services related to leisure activities if the contract provides for a specific date or period of performance; (m) the supply of digital content which is not supplied on a tangible medium if the performance has begun with the consumer's prior express consent and his acknowledgment that he thereby loses his right of withdrawal.

case of distance contracts, concluded by telephone, Member States may provide that the trader has to confirm the offer to the consumer who is bound only once he has signed the offer or has sent his written consent. Additionally, according to Article 22[103], for any additional payments charged to the consumer, the trader needs to obtain the consumer's express consent, without inferring it by using default options.

More recently, in 2019, the European Council adopted the Modernisation Directive, which is part of the "New Deal" for consumers. The Modernisation Directive will amend several consumer law directives, namely the UTD, the UCPD, the Product Pricing Directive and the CRD. One of the core ideas of the Modernisation Directive is the limitation of full harmonisation of national provisions in the field of consumer protection, hence giving back some power to single Member States. Additionally, the Modernisation Directives represents a relevant starting point since it will introduce specific rules for online marketplaces, online search results and online reviews, combining, so, the regulation of B2C practices with the regulation of online practices. This point will be further explored in section 1.3.2.

1.2.4 The average consumer benchmark: The *Gut Springenheide* case (1998) and other relevant EU proceedings

The UCPD, in order to assess the misleading nature of a practice, takes as a benchmark the average consumer, that is defined as "a reasonably well-informed and reasonably observant and circumspect individual, taking into account social, cultural and linguistic factor."[104] As previously explained, this definition has been constructed along time through the decisions of the CJEU and introduced for the first time in the *Gut Springenheide* case (1998). Starting from the second half of last century, it is possible to reconstruct all the CJEU decisions that have led to the definition of average consumer as reported above.

In 1979, the CJEU had to deal with the well-known *Cassis de Dijon*[105] case. The proceeding concerned a conflict between the food company Rewe-Zentral and a German state agency, responsible of the import permits for liquors. Rewe-Zentral applied for an import permit for the Cassis de Dijon, a liquor from France, but the agency denied the request since the liquor in question didn't contain a sufficiently high alcohol percentage to be sold in Germany. Consumers, indeed, could be misled by the sale of that liquor, containing a lower alcohol level, specifically because the percentage of the alcohol is a major determinant in the price of the liquor. In addition, it was relevant to make a clear distinction between light alcoholic beverages and strong liquors in order to protect public health.

[103] Article 22 CRD - Additional payments: Before the consumer is bound by the contract or offer, the trader shall seek the express consent of the consumer to any extra payment in addition to the remuneration agreed upon for the trader's main contractual obligation. If the trader has not obtained the consumer's express consent but has inferred it by using default options which the consumer is required to reject in order to avoid the additional payment, the consumer shall be entitled to reimbursement of this payment.
[104] Recital 18 UCPD.
[105] Judgment of 20. 2. 1979 - Case 120/78 (*Cassis de Dijon case*), available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61978CJ0120&from=IT].

The CJEU stated that all these reasons were not sufficient to justify the limitation of the free movement of goods, affirmed in Article 28 TFEU[106]. The consumer indeed was sufficiently protected if it was ensured that "suitable information is conveyed to the purchaser by requiring the display of an indication of origin and of the alcohol content on the packaging of product"[107]. The CJEU didn't formally introduce an explicit consumer benchmark, but "the judgment can be seen as a starting point for the development of the average consumer benchmark"[108]. The CJEU, in particular, applied an abstract test to assess the misleading character of the practice in question.

What emerges is that the consumer is assumed to read product labels or, at least, to take note of the indication of the country of origin and the alcoholic percentage presented in the label. "The argument that the consumer is sufficiently protected by information provided on the product label has been held by the CJEU in numerous cases, concerning the free movement of goods and has become known as the labelling doctrine"[109].

The labelling doctrine reflects the principle of information disclosure and can be seen as a part of the *information paradigm*, according to which increasing the amount of information and establishing full transparency help consumers with their decisions; consumers, so, are considered as being sufficiently protected if they are supplied with all the relevant information. In line with the first approach of the EU Commission in the "Programme of the European Economic Community for a consumer protection and information policy" of 1975, the consumer is seen as an active market player, rather than a passive and inattentive consumer.

In 1990 the CJEU ruled a case about a Belgian supermarket spreading advertising leaflets in Luxembourg. The proceeding, that goes by the name of *GB-INNO-BM* case[110], dealt with a Luxemburg law, that prohibited mentioning the pre-sale prices and the time period of the discount in advertising, on the ground to prevent confusion between bi-annual sales and other temporary discounts and, hence, to protect consumers.

The CJEU contrasted this national provision since "normally aware consumer knows that there is a difference between discounts and the regulated bi-annual discount and that the use of reference prices cannot be prohibited unless they are in fact false"[111]. Again, the stress is on a rational aware consumer that is capable to detect all the relevant information.

In 1992, the European Court of Justice had to deal with *Nissan* case[112], that represents another relevant proceeding for the definition of the average consumer benchmark. The case dealt with the parallel import of

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[106] Article 28 TFEU (ex Article 23 TEC): 1. The Union shall comprise a customs union which shall cover all trade in goods and which shall involve the prohibition between Member States of customs duties on imports and exports and of all charges having equivalent effect, and the adoption of a common customs tariff in their relations with third countries. 2. The provisions of Article 30 and of Chapter 3 of this Title shall apply to products originating in Member States and to products coming from third countries which are in free circulation in Member States.

[107] Paragraph 13 Cassis de Dijon case, available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61978CJ0120&from=IT].

[108] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 31.

[109] *Id*, 32.

[110] Judgment of the Court (sixth chamber) 7 March 1990 – Case C-362/88 (*GB-INNO-BM case*), available at [https://eur-lex.europa.eu/resource.html?uri=cellar:ab3f007e-b09f-486e-aa31-1de576ebaf6f.0002.03/DOC_2&format=PDF].

[111] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 34/35.

[112] Judgment of 16.1. 1992 - Case 373/90 (*Nissan case*), available at [https://curia.europa.eu/juris/showPdf.jsf?text=&docid=97543&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=14629741].

new Nissan vehicles from Belgium into France. The vehicles were cheaper, but also had few accessories than the regular Nissan vehicles sold in France. The CJEU was asked by a French Tribunal whether such a marketing practice was in compliance with the European rules currently in force[113], particularly the Misleading Advertising Directive 84/550/EEC. The CJEU stated that a practice needed to detect a significant number of consumers in order to be considered as misleading. In this case, the practice was considered as non-misleading, since it did not detect a significant number of consumers. Here a *quantitative* test to determine the misleading nature of the practice is taken into-account. In contrast, we will see that in following cases, among which *Clinique* (1994) and *Gut Springenheide* case (1998), a more *abstract* test of the average consumer has been promoted by the Court.

In 1994, the Court had to deal with the *Clinique* case[114], focusing on the lawfulness of the use of the name Clinique for an Estée Lauder cosmetic in Germany. The German consumer organizations pointed out that the name Clinique for a cosmetic may have been misleading since it made consumers believe that the product in question had medical properties. Therefore, they brought action against Estée Lauder on the ground that this practice breached the German Foods Act LMBG. The CJEU stated that "the clinical or medical connotations of the word 'Clinique' are not sufficient to make that word so misleading as to justify the prohibition of its use on products marketed in the aforesaid circumstances"[115]. Hence, there was no justification to limit the free movement of goods. "The misleading nature of the product name is decided upon a test in which the consumer in *abstracto* is taken as the standard and not whether a certain percentage of the consumers is actually being deceived"[116]. This is an important step toward the definition of an abstract, rather than quantitative, average consumer test, formally promoted by the CJEU for the first time in the *Gut Springenheide* case. Additionally, in the *Clinique* case, the Court followed an approach based on the approximation of laws and practices within the EU internal market: if a name is considered as being misleading in one Member States but not in all the others, it shall be considered as non-misleading in the whole EU community.

Subsequently, in 1995, the CJEU had to deal with the *Mars* case[117], applying for the first time the benchmark of the "reasonably circumspect consumer". Specifically, in the case, Mars had launched a European-wide marketing campaign, selling 10% larger ice cream bars for the regular price. On the package it was stated that the product was 10% larger, however the coloured part of the package indicating this increase was bigger than 10%. A German consumer organization claimed against this initiative, stating that this practice could mislead consumers. The Court was asked whether such a prohibition would be in conflict with the free movement of goods. The CJEU answered that this prohibition could not be justified, since "reasonably

[113] Paragraph 5 of the Nissan case.
[114] Judgment of 2.2.1994 — Case C-315/92 (*Clinique Laboratories and Estée Lauder case*), available at [https://curia.europa.eu/juris/showPdf.jsf?text=&docid=98713&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=14630953].
[115] Paragraph 23 of Clinique case.
[116] Duivenvoorde, B. B. (2015). The consumer benchmarks in the unfair commercial practices directive (Vol. 5). Springer, 38.
[117] Judgment of 6.7.1995 – Case C-470/93 (*Mars case*), available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61993CJ0470&from=EN].

circumspect consumers may be deemed to know that there is not necessarily a link between the size of publicity markings relating to an increase in a product's quantity and the size of that increase"[118].

Graffione case[119] (1996) represents a change of vision of the CJEU, with respect to its prior position stated in *Clinique* case (1994). The case dealt with a dispute between Graffione and the supermarket owner DittaFransa. The Court of appeal of Milan (Corte d'Appello di Milano), at an earlier stage in the legal procedure, had forbidden Scott, a producer of toilet paper and disposable handkerchiefs, to continue importing these products in Italy. The *rationale* behind this decision was that the products were sold under the name "Cottonelle" despite they were made by paper, hence the name was considered as misleading. The CJEU was asked whether this decision could be justified in light of consumer protection. The Court answered that the existing EU legislation, particularly the Council Directive 89/104/EEC to approximate the laws of Member States relating to trademarks, had to be interpreted as not precluding a prohibition on the marketing of products coming from a Member State where they are lawfully market, since such products can mislead national consumers of that Member State. For the first time, the Court accepted that differences between consumers from different Member States may be take in into account in light of social, cultural and linguistic factors, and the consumer benchmark can be based on a national consumer rather than a European consumer; hence the final decision was left to the national court, "stating that the national court will have to decide whether 'the risk of misleading the consumers is sufficiently serious to limit the free movement of goods '"[120].

Finally, in 1998 the CJEU had to deal with the *Gut Springenheide* case[121]. In the proceeding, the Gut Springenheide firm used to market eggs ready-packed under the description "6-Korn-10 frische Eier" (six grain – 10 fresh eggs). According to the company, the six varieties of cereals in question account for 60% of the feed mix used to feed the hens. Each box of eggs included an information leaflet, praising the quality of the eggs resulting from this high-quality feed. In 1989 the Office for the Supervision of Foodstuffs gave the company notice that it must remove them, arguing that the product name and the information provided were misleading. The German Federal administrative court was asked whether this practice was in line or against the Article 10 of the Council Regulation 1907/90[122], according to which eggs producers needed to provide consumers with all the relevant information about eggs and their origins, in a non-misleading way.

[118] Paragraph 24 Mars Case.
[119] Judgment of 26. 11. 1996 - Case C-313/94 (*Graffione case*), available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61994CJ0313&from=IT].
[120] Duivenvoorde, B. B. (2015). The consumer benchmarks in the unfair commercial practices directive (Vol. 5). Springer, 42.
[121] Judgment of 16.7.1998 – Case C-210/96 (*Gut Springenheide case*), available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61996CJ0210&from=EN].
[122] Article 10 Directive 1907/90: 1. Large packs, and small packs even when contained in large packs, shall bear on the outer surface in clearly visible and legible type: (a) the name or business name, and address of the undertaking which has packed the eggs or had them packed; the name, business name or the trade mark used by that undertaking, which may be a trade mark used collectively by a number of undertakings, may be shown if it contains no wording incompatible with this Regulation relating to the quality or freshness of the eggs, to the type of farming used for their production or to the origin of the eggs; (b) the distinguishing number of the packing centre; (c) the quality and weight gradings. Class A eggs may be identified either by the words 'class A' or the letter 'A' whether alone or in combination with the word 'fresh'; (d) the number of eggs packed; (e) the packing date; (f) particulars as to refrigeration or to the method of preservation, in uncoded form, in respect of refrigerated or preserved eggs. 2. Both large and small packs may, however, carry the following additional information, on either inner or outer surfaces: (a) the selling price ; (b) the retail management and/or stock control codes ; (c) one or more further dates aimed at providing the consumer with additional information; (d) particulars as to special storage conditions; (e) statements designed to promote sales, provided that such statements and the manner in which they are made are not

The German Federal administrative court referred to the CJEU, posing three questions, focusing on which consumer benchmark should be taken into-account to evaluate the misleading nature of the practice. Particularly: "in order to assess whether, for the purposes of Article 10(2)(e) of Regulation (EEC) No 1907/90, statements designed to promote sales are likely to mislead the purchaser, must the actual expectations of the consumers to whom they are addressed be determined, or is the aforesaid provision based on a criterion of an objectified concept of a purchaser, open only to legal interpretation?"[123]. If it is the actual expectations of the consumer that matters, which is the proper test? The view of the *informed average consumer* or that of the *casual* consumer? In the determination of these expectations, can a proportion of consumers in percentage be taken into-account? If, in contrast, an objectified concept of a purchaser, open only to legal interpretation, is taken into-account, what is a proper definition of this consumer?

The CJEU answered to these three questions pointing out that the consumer that should have been taken into-account, when evaluating the misleading nature of a practice, is the average consumer who is reasonably well-informed and reasonably observant and circumspect. However, if the national courts presented particular difficulties in assessing the misleading nature of the statement or description in question, they could have recourse, under the conditions laid down by its own national law, to a consumer research poll or an expert's report as guidance for its judgment. Here again, the final decision is left to the national court.

It must be seen that EU law does not seek to protect the "casual consumers"; it regards consumers as responsible individuals. In this manner, a consumer can no longer be considered as a passive market participant.

Adolf Darbo case[124] further develops the characteristics of average consumer being informed and observant. This case dealt with a firm, AdolfDarbo, that manufactured jam in Austria and sold it in Germany under the name "d'Arbo Naturrein". A German consumer organization pointed out that the sold product was not actually "Naturrein" (i.e., naturally pure) since it contained additives and pesticides, as a result of soil and air pollution. The company argued that the name was not misleading, since consumers are aware that such residues are present in a product like jam and that pectin (an additive) is commonly used to make jam. The

likely to mislead the purchaser. 3. Further dates and indications concerning the type of farming and the origin of the eggs may only be used in accordance with rules to be laid down under the procedure set out in Article 17 of Regulation (EEC) No 2771 /75. These rules shall cover in particular the terms used in indications of the type of farming and the criteria concerning the origin of the eggs. However, if use of the indications relating to the type of farming or to the origin of the eggs should prove to be harmful to the fluidity of the Community market, or if serious difficulties arise regarding control of the use of such indications and its effectiveness, the Commission, acting under the same procedure, may suspend use of the said indications. Notwithstanding the above, where large packs contain small packs or eggs marked with any reference to the type of farming or to the origin of the eggs, these particulars shall also be shown on the large packs.

[123] Paragraph 15 Gut Springenheide case.

[124] Judgment of 4.04.2000 – Case C-465/98 (*Adolf Darbo case*), available at [https://curia.europa.eu/juris/showPdf.jsf?text=&docid=45215&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=14631679].

Tribunal of Colon referred to the CJEU asking whether Article 2[125] of the Directive 79/112/EC[126], on the labelling, presentation and advertising of foodstuffs, precluded the use of the description "naturally pure" to describe a strawberry jam which contained the gelling agent pectin and traces or residues of lead, cadmium and pesticides.

With reference to the presence of the pectin, the CJEU, following the decision taken in Commission v Germany[127], stated that consumers, whose purchasing decisions depend on the composition of the products in question, *would have first read the list of ingredients*, the display of which is required by Article 6 of the Directive 79/112/EC[128]. "An average consumer who is reasonably well informed and reasonably observant

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[125] Article 2 Directive 79/112/EC: 1. The labelling and methods used must not: (a) be such as could mislead the purchaser to a material degree, particularly: (i) as to the characteristics of the foodstuff and, in particular, as to its nature, identity, properties, composition, quantity, durability, origin or provenance, method of manufacture or production, (ii) by attributing to the foodstuff effects or properties which it does not possess, (iii) by suggesting that the foodstuff possesses special characteristics when in fact all similar foodstuffs possess such characteristics; (b) subject to the provisions applicable to foodstuffs for particular nutritional uses, attribute to any foodstuff the property of preventing, treating or curing a human disease, or refer to such properties; Community provisions or, where there are none, national provisions may derogate from this rule in the case of natural mineral waters. The procedure laid down in Article 16 shall apply to any such national provisions. 2. The Council, in accordance with the procedure laid down in Article 100 of the Treaty, shall draw up a non-exhaustive list of the claims within the meaning of paragraph 1 , the use of which must at all events be prohibited or restricted. 3. The prohibitions or restrictions referred to in paragraphs 1 and 2 shall also apply to: (a) the presentation of foodstuffs, in particular their shape, appearance or packaging, the packaging materials used, the way in which they are arranged and the setting in which they are displayed; (b) advertising.

[126] Now replaced by Directive 2000/13/EC. The Directive 79/112/EC is available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31979L0112&from=IT]

[127] The case (1995) deals with labelling and foodstuff presentation. The Federal Republic of Germany, by requiring that béarnaise sauce and hollandaise sauce made with vegetable fats and certain pastry products containing the additive 'E 160 F' should, in order to be marketed in Germany, carry a trade description with an additional statement indicating that the substance in question has been used, even if that substance is already included in the list of ingredients referred to in Article 6 of Council Directive 79/112/EEC, failed to fulfil its obligations under Article 30 of the EC Treaty concerning the free movement of goods within the EU internal market. The case is available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61994CJ0051&from=EN]

[128] Article 6 Directive 79/112/EC is a detailed article concerning the information that need to be provided according to the foodstuff on sale: 1. Ingredients shall be listed in accordance with this Article and the Annexes. 2. Ingredients need not be listed in the case of: (a) fresh fruit and vegetables, including potatoes, which have not been peeled, cut or similarly treated, carbonated water, the description of which indicates that it has been carbonated, fermentation vinegars derived exclusively from a single basic product, provided that no other ingredient has been added; (b) cheese, butter, fermented milk and cream, provided that no ingredient has been added other than lactic products, enzymes and micro-organism cultures essential to manufacture, or the salt needed for the manufacture of cheese other than fresh cheese and processed cheese; (c) products consisting of a single ingredient. 3. In the case of beverages containing more than 1-2 % by volume of alcohol, the Council, acting on a proposal from the Commission, shall, before the expiry of a period of four years following notification of this Directive, determine the rules for labelling ingredients and, possibly, indicating the alcoholic strength. 4. (a) 'Ingredient' shall mean any substance, including additives, used in the manufacture or preparation of a foodstuff and still present in the finished product, even if in altered form. (b) Where an ingredient of the foodstuff is itself the product of several ingredients, the latter shall be regarded as ingredients of the foodstuff in question. (c) The following shall not be regarded as ingredients: (i) the constituents of an ingredient which have been temporarily separated during the manufacturing process and later reintroduced but not in excess of their original proportions; (ii) additives: whose presence in a given foodstuff is solely due to the fact that they were contained in one or more ingredients of that foodstuff, provided that they serve no technological function in the finished product, which are used as processing aids; substances used in the quantities strictly necessary as solvents or media for additives or flavouring. (d) In certain cases, Decisions may be taken in accordance with the procedure laid down in Article 17 as to whether the conditions described in (c) (ii) are satisfied. 5. (a) The list of ingredients shall include all the ingredients of the foodstuff, in descending order of weight, as recorded at the time of their use in the manufacture of the foodstuff. It shall appear preceded by a suitable heading which includes the word 'ingredients'. However: added water and volatile products shall be listed in order of their weight in the finished product; the amount of water added as an ingredient in a foodstuff shall be calculated by deducting from the total amount of the finished product the total amount of the other ingredients used. This amount need not be taken into consideration if it does not exceed 5 % by weight of the finished product; ingredients used in concentrated or dehydrated form and reconstituted at the time of manufacture may be listed in order of weight as recorded before their concentration or dehydration; in the case of concentrated or dehydrated foods which are intended to be reconstituted by the addition of water, the ingredients may be listed in order of proportion in the reconstituted product provided that the list of ingredients is accompanied by an expression such as, 'ingredients of the reconstituted product', or 'ingredients of the ready-to-use product'; in the case of mixtures of fruit or vegetables where no particular fruit or vegetable significantly predominates in proportion by weight, those ingredients may be listed in another order provided that that list of ingredients is accompanied by an expression such as 'in variable proportion'; in the case of mixtures of spices or herbs, where none significantly predominates in proportion by weight, those ingredients may be listed in another order provided that that list of ingredients is accompanied by an

and circumspect could not be misled by the term "naturally pure" use on the label simply because the jam contains pectin gelling agent whose presence is duly indicated on the list of its ingredients"[129].

With reference to the presence of traces of lead, cadmium and pesticide, according to the CJEU, such residues were not ingredients of the foodstuff within the meaning of Article 6 the aforementioned Directive and did not appear on the list of compulsory particulars set out in Article 3 of the Directive[130]. In addition, the Court maintained that lead and cadmium not only were naturally present in the environment due to air and soil pollution, but in addition they were present in a very little amount in the Adolf Darbo jam. With reference to pesticides, the CJEU recognized that such products were commonly used in agricultural activities and, in addition, were present in too little amounts in the jam in order to create harm. Hence, the labelling of the jam was recognized as not being suitable to mislead consumers.

This case underlines not only the idea of the average consumers as interpreted by the CJEU, but also the fact that consumers are assumed to read the whole label of the offered products within the internal market.

Attention should be given also to *Douwe Egberts v Westrom Pharma* case[131], about the trade of coffee produced by the firm Westrom Pharma in Belgium. This coffee was sold with specific instructions stating "the absolute break breakthrough in weight control, slimming, better weight control, slowing down of excess fat

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expression such as 'in variable proportion'; (b) ingredients shall be designated by their specific name, where applicable, in accordance with the rules laid down in Article 5. However: ingredients which belong to one of the categories listed in Annex I and are constituents of another foodstuff need only be designated by the name of that category; ingredients belonging to one of the categories listed in Annex II must be designated by the name of that category, followed by their specific name or EEC number; if an ingredient belongs to more than one of the categories, the Category appropriate to the principal function in the case of the foodstuff in question shall be indicated; amendments to this Annex based on advances in scientific and technical knowledge shall be adopted in accordance with the procedure laid down in Article 17; flavouring matter shall be described in accordance with the national provisions applicable thereto, until the entry into force of the Community provisions; the Community provisions or, where there are none, the national provisions applicable to certain specified foodstuffs, many also provide for categories additional to those specified in Annex I. Without prejudice to the notification provided for in Article 22, Member States shall inform the Commission and the other Member States of any measure taken pursuant to this indent. 6. Community provisions or, where there are none, national provisions may lay down that the name under which a specific foodstuff is sold is to be accompanied by mention of a particular ingredient or ingredients. The procedure laid down in Article 16 shall apply to any such national provisions. 7. In the case referred to in paragraph 4 (b), a compound ingredient may be included in the list of ingredients, under its own designation in so far as this is laid down by law or established by custom, in terms of its overall weight, provided that it is immediately followed by a list of its ingredients. Such a list, however, shall not be compulsory: where the compound ingredient constitutes less than 25 % of the finished product; however, this exemption shall not apply in the case of additives, subject to the provisions of paragraph 4 (c), where the compound ingredient is a foodstuff for which a list of ingredients is not required under Community rules. 8. Notwithstanding paragraph 5 (a), the water content need not be specified: (a) where the water is used during the manufacturing process solely for the reconstitution of an ingredient used in concentrated or dehydrated form; (b) in the case of a liquid medium which is not normally consumed.

[129] Paragraph 22 Adolf Darbo case.

[130] Article 3 Directive 79/112/EC 1. In accordance with Articles 4 to 14 and subject to the exceptions contained therein, indication of the following particulars alone shall be compulsory on the labelling of foodstuffs: (1) the name under which the product is sold, (2) the list of ingredients, (3) in the case of prepackaged foodstuffs, the net quantity, (4) the date of minimum durability, (5) any special storage conditions or conditions of use, (6) the name or business name and address of the manufacturer or packager, or of a seller established within the Community. However, the Member States shall be authorized, in respect of butter produced in their territory, to require only an indication of the manufacturer, packager or seller. Without prejudice to the notification provided for in Article 22, Member States shall inform the Commission and the other Member States of any measure taken pursuant to this paragraph, (7) particulars of the place of origin or provenance in the cases where failure to give such particulars might mislead the consumer to a material degree as to the true origin or provenance of the foodstuff, (8) instructions for use when it would be impossible to make appropriate use of the foodstuff in the absence of such instructions. 2. Notwithstanding the previous paragraph, Member States may retain national provisions which require indication of the factory or packaging centre, in respect of home production. 3. The provisions of this Article shall be without prejudice to more precise or more extensive provisions regarding weights and measures.

[131] Judgment of 15.7.2004 – Case C-239/02 (*Douwe Egberts v Westrom Pharma case*), available at [https://curia.europa.eu/juris/showPdf.jsf;jsessionid=BE5417212C225DF259FA85597526E31D?text=&docid=49405&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=14505170].

deposits and the formula patented in the United States by Dr Ann de Wees allen, in association with Glycemia Research Institute"[132]. A competitor, Douwe Egberts, filed a complaint against this practice before the Belgian court, arguing that the statements conflicted with Belgian food law, which prohibited references to slimming and to medical recommendations, declarations, or statements of approval in the labelling and presentation of foods. The CJEU found that such a general prohibition was contrary to the Directive 2000/13/EC on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs, as well as to the principle of free movement of goods. What is relevant here is the opinion of the Advocate General Geelhoed, according to whom the average consumer is supposed to always read the label before buying a product for the first time and to be able to assess the relevant information. What the Advocate pointed out is that the consumer has an interest, both in the economic sense and as regards his health, in being correctly informed about the properties of the product which he is thinking of acquiring.

"The consumer has an interest in not being misled. So long as the information concerned is correct, it must be assumed that the average consumer is reasonably well informed and reasonably observant and circumspect will be capable of forming an opinion on the product advertised without his economic and health interest being harmed. An outright prohibition on obtaining the information concerned therefore goes further than necessary for the protection of those interests"[133].

Here the stress is not only on the notion of the average consumer, but also on the *principle of proportionality*, according to which to achieve its aims, the EU will only take the action it needs to and no more. The principle is enshrined in the Treaty on European Union under Article 5, which states: "the content and form of Union action shall not exceed what is necessary to achieve the objectives of the Treaties"; the principle is also implemented in the TFEU, in Article 69[134] among others. According to the Advocate, the average consumer is assumed to have a well-defined interest in not being misled, hence if she doesn't pay attention, she would bear the risk.

Finally, it is relevant to discuss about the *Kásler* case[135], since it represents the first time in which the average consumer benchmark was applied in the context of the UTD. The case dealt with a mortgage loan supplied by a Hungarian bank to two Hungarian consumers. In order to diminish inflation risks, the loan was calculated in Swiss Francs rather than in Hungarian Florins. The contract, however, contained a clause according to which the Hungarian Bank was authorized to calculate the monthly repayment instalments due based on the selling rate of exchange for the currency applied by the bank, whereas the amount of the loan advanced was determined by latter on the basis of the buying rate of exchange that it applied for that currency.

[132] Paragraph 16 Douwe Egberts v Westrom Pharma case.

[133] Opinion of Advocate General Geloheed – 27.2.2013 (*Douwe Egberts v Westrom Pharma case),* available at [https://eur-lex.europa.eu/legal content/EN/TXT/PDF/?uri=CELEX:62001CC0109&from=EN].

[134] Art 69 TFEU: "National Parliaments ensure that the proposals and legislative initiatives submitted under Chapter 4 and 5 comply with the principle of subsidiarity, in accordance with the arrangements laid down by the Protocol on the application of the principle of subsidiarity and proportionality".

[135] Judgment of 30.4.2013 – Case C-26/13 (*Kásler case*), available at [https://curia.europa.eu/juris/document/document.jsf?text=&docid=151524&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=11196591].

The two clients brought action against the Hungarian bank claiming that the clause was unfair, the abuse of dominant position was outlined by the fact that clause III/2 was unfair since not sufficiently transparent and conferring an unjustified benefit on the Hungarian Bank.

One of the questions before the CJEU was whether this clause was sufficiently transparent, hence in accordance with Directive 93/13/EC (UTD).

The CJEU, in order to assess whether the practice was misleading or not, applied for the first time the average consumer benchmark in the context of unfair terms, according to Directive 93/13/EC. Particularly, the CJEU stated that the loan contract needed not only be presented clearly from a structural and grammatical point of view, but rather it needed to be set out in a transparent fashion the reason for and the particularities of the mechanism for converting the foreign currency. Finally, the Court stated that it was within the responsibilities of the Kúria (the highest court of Hungary) to determine whether the average consumer "would not only be aware of the existence of the difference between the selling rate of exchange and the buying rate of exchange of a foreign currency, but also be able to assess the consequences arising from the application of the selling rate of exchange for the calculation of the repayments and for the total cost of the sum borrowed"[136]. What is expected of the average consumer is in this context left to the national court, but "the CJEU does seem to suggest that the mere insertion of the term is not sufficient to inform the consumer. While it is uncertain how the information should be provided in order to satisfy the transparency requirement, it is thus clear that – at least for complex contracts – the average consumer needs more than a "technical" standard contract term to realise its meaning and consequences"[137]. In this case, the CJEU applied for the first time a consumer-friendlier vision.

In conclusion, the UCPD, as mentioned in section 1.2.3, dedicates a particular safeguard to vulnerable consumers, identified as vulnerable for "their mental or physical infirmity, age or credulity"[138]. Where such characteristics (infirmity/age/credulity) "make consumers particularly susceptible to a commercial practice or to the underlying product and the economic behaviour only of such consumers is likely to be distorted by the practice in a way the trader can reasonably foresee, it is appropriate to ensure that they are adequately protected by assessing the practice from the perspective of the average member of that group"[139].

In line with this, the CJEU has left some room for exception from the average consumer test in its proceedings. It is possible to notice this attempt in the *Buet* case[140], concerning the door-to-door sale of teaching materials. At the centre of the dispute there is EBS, a company engaged in doorstep selling of materials for an English language course. Buet, the manager of the company, was prosecuted under criminal law for violating a French prohibition on doorstep selling of teaching materials, and EBS itself was being held under civil law. Buet argued that the French prohibition was infringing the free movement of goods within the

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[136] Paragraph 74 Kásler case.
[137] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 51.
[138] Article 5 UCPD.
[139] Paragraph 18 of Introduction to the UCPD.
[140] Judgment of 16. 5. 1989 — Case 382/87 (*Buet case*), available at [https://eur-lex.europa.eu/resource.html?uri=cellar:700f6c03-ccfd-40a7-b2b0-c276bc9f8e6d.0002.03/DOC_1&format=PDF].

EU internal market and appealed against the judgment of the Tribunal de Première Instance, that referred to the CJEU for the interpretation of the Article 30 TEC on the free movement of goods. The CJEU ruled that the prohibition, although restricting the free movement of goods, was in fact legitimate, stressing out that the potential purchaser often belonged to a category of people who, for one reason or another, are behind with their education and are seeking to catch up. "That makes them particularly vulnerable when faced with salesmen of educational material who attempt to persuade them that if they use that material they will have better employment prospects"[141].

In this case, the CJEU did not take the point of view of the average consumer to assess the misleading nature of the practice, but rather it examined the question from the perspective of a category of people who are particularly vulnerable, due to their lack in education. The *Buet* case proves that there are limits to the information paradigm, especially if vulnerable targets are taken into-account.

1.3 The *prosumer* in the era of digitalization: the relevance of data protection

Activities of data processing has started to emerge during the last decades of the 20th century, almost from the 70s of last century. However, the real boom of data processing has been reached only with the Internet development of the mid 1990s, that has radically changed the relationship between users and firms, triggering the process of *prosumption*, outlined in section 1.2.3.

In new digital economies, while prosumers consume, they are simultaneously and unconsciously producing highly valuable information, namely their personal data.

Machines, computers and related algorithms exploit the huge amount of data provided by the users (e.g. databases, search engines, virtual shops, e-mails, social networks, cloud/storage services) and aggregate and analyse such an amount of data to produce more information. The result goes by the name of Big Data: data that contains greater variety arriving in increasing volumes and with ever-higher velocity.

Platform based companies such as the Big Five (Google, Apple, Facebook, Amazon, Microsoft, or 'GAFAM') exploit consumer data and especially Big Data, benefitting of a powerful marketing leverage for customer relationship management that facilitates the user's experience through services such as recommendation engines. This, in turn, is translated into a valuable *competitive advantage*[142], reason why data has acquired a terrific economic value and private companies and governments have become increasingly data centric.

From the side of the users, "the high demand for personal information, the complexity of the new tools of analysis and the increasing numbers of sources of data collection, have generated an environment in which the "data barons" (i.e., big companies, government agencies, intermediaries) have a control over digital

[141] Paragrah 13 Buet case.
[142] Dawar, N. (2016) Use Big Data to Create Value for Customers, Not Just Target Them. *Harvard Business Review*. Available at [https://hbr.org/2016/08/use-big-data-to-create-value-for-customers-not-just-target-them].

information which is no longer counterbalanced by the user's self-determination"[143]. Users have been increasingly exposed to risks; it follows that data protection represents a relevant point to reach a good equilibrium within new digital economies.

The EU institutions have tried to address this problem, building a suitable legal framework over the years, and providing data protection to EU users.

1.3.1 Data protection and consumer protection

The European legislators and policy makers, starting from the 70s/80s of last century, have been addressing the need of data protection regulation and have tried to build suitable norms around the idea that individuals' privacy and personal data shall be protected as fundamental rights, respectively in the jurisdiction of the Council of Europe and the European Union. "The right to privacy is protected in Article 8 of the European Convention of Human Rights[144] (ECHR) and Article 7 of the Charter of Fundamental Rights of the European Union[145] (Charter)"[146]. The right to privacy, not only protects private and family life as well as individuals' home and correspondence, but also covers the protection of personal data against unlawful processing. "As the private life of individuals is increasingly mediated through the internet and online services, situations that trigger privacy concerns now often coincide with the processing of personal data"[147].

According to Caggiano[148], the regulation of data protection has been developed around the idea of consent, according to which the lawfulness of data collection and processing is determined by the presence of a consent freely expressed by the user.

The first European Directive that aimed to regulate the protection of individuals about the processing of personal data and the free movement of such data is represented by Directive 95/46/EC; the principles set out in the Data Protection Directive aimed at the protection of fundamental rights and freedoms in the processing of personal data. It is relevant to acknowledge at least four aspects of the Directive 95/46/EC[149].

Firstly, Article 6 of the Directive[150], that stresses out that personal data must be processed *fairly* and *lawfully*. Data must be collected for specified, explicit and legitimate objectives, in an appropriate manner;

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[143] Mantelero, A. (2014). The future of consumer data protection in the EU Re-thinking the "notice and consent" paradigm in the new era of predictive analytics. Computer Law & Security Review, 30(6), 644.

[144] Article 8 European Convention on Human Rights, available at [https://www.echr.coe.int/documents/convention_eng.pdf] - Right to respect for private and family life: 1. Everyone has the right to respect for his private and family life, his home and his correspondence. 2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic wellbeing of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

[145] Article 7 Charter of Fundamental Rights of The European Union, available at [https://www.europarl.europa.eu/charter/pdf/text_en.pdf]. - Respect for private and family life: Everyone has the right to respect for his or her private and family life, home and communications.

[146] Oostveen, M., & Irion, K. (2018). The golden age of personal data: How to regulate an enabling fundamental right?. In *Personal Data in Competition, Consumer Protection and Intellectual Property Law* (pp. 7-26). Springer, Berlin, Heidelberg.

[147] *Ibidem.*

[148] Caggiano, I. A. (2018). Il consenso al trattamento dei dati personali nel nuovo Regolamento europeo. Analisi giuridica e studi comportamentali. *Osservatorio del diritto civile e commerciale*, *7*(1), 67-106.

[149] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=en].

[150] Article 6 Directive 95/46/EC: 1. Member States shall provide that personal data must be: (a) processed fairly and lawfully; (b) collected for specified, explicit and legitimate purposes and not further processed in a way incompatible with those purposes. Further

additionally, data shall be kept in a form which permits identification of data subject for no longer than is necessary for the purpose.

Secondly, among the criteria for making processing legitimate, Article 7 of the Directive[151] introduces the idea of *consent*. Specifically, personal data can be processed only if the data subject has unambiguously given his consent, where consent is defined in the Directive as any freely given specific and informed indication of his wishes by which the data subject signifies his agreement to personal data relating to him being processed. Alternatively, Article 7 presents other criteria for making data processing legitimate: the performance of a contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering into a contract, the compliance with a legal obligation to which the controller is subject, the vital interests of the data subject, the public interest and the achievement of purposes of the legitimate interests pursued by the data controller[152] or by third parties to whom data are disclosed.

Thirdly, the section IV of the Directive 95/46/EC is dedicated to all the *information* that shall be given to the data subject both in case of collection of data directly from the data subject (Article 10[153]) and in case of data not obtained directly from the data subject (Article 11[154]). Again, the stress is on the information disclosure as a tool to fill the gap between the data controller and the data subject.

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processing of data for historical, statistical or scientific purposes shall not be considered as incompatible provided that Member States provide appropriate safeguards; (c) adequate, relevant and not excessive in relation to the purposes for which they are collected and/or further processed; (d) accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that data which are inaccurate or incomplete, having regard to the purposes for which they were collected or for which they are further processed, are erased or rectified; (e) kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data were collected or for which they are further processed. Member States shall lay down appropriate safeguards for personal data stored for longer periods for historical, statistical or scientific use. 2. It shall be for the controller to ensure that paragraph 1 is complied with.

[151] Article 7 Directive 95/46/EC: Member States shall provide that personal data may be processed only if: (a) the data subject has unambiguously given his consent; or (b) processing is necessary for the performance of a contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering into a contract; or (c) processing is necessary for compliance with a legal obligation to which the controller is subject; or (d) processing is necessary in order to protect the vital interests of the data subject; or (e) processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller or in a third party to whom the data are disclosed ; or (f) processing is necessary for the purposes of the legitimate interests pursued by the controller or by the third party or parties to whom the data are disclosed, except where such interests are overridden by the interests for fundamental rights and freedoms of the data subject which require protection under Article 1 (1).

[152] "the natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data; where the purposes and means of processing are determined by national or Community laws or regulations, the controller or the specific criteria for his nomination may be designated by national or Community law" Article 2 Directive 95/46/EC.

[153] Article 10 Directive 95/46/EC - Information in cases of collection of data from the data subject: Member States shall provide that the controller or his representative must provide a data subject from whom data relating to himself are collected with at least the following information, except where he already has it: (a) the identity of the controller and of his representative, if any; (b) the purposes of the processing for which the data are intended; (c) any further information such as the recipients or categories of recipients of the data; whether replies to the questions are obligatory or voluntary, as well as the possible consequences of failure to reply; the existence of the right of access to and the right to rectify the data concerning him in so far as such further information is necessary, having regard to the specific circumstances in which the data are collected, to guarantee fair processing in respect of the data subject.

[154] Article 11 Directive 95/46/EC - Information where the data have not been obtained from the data subject: 1. Where the data have not been obtained from the data subject, Member States shall provide that the controller or his representative must at the time of undertaking the recording of personal data or if a disclosure to a third party is envisaged, no later than the time when the data are first disclosed provide the data subject with at least the following information, except where he already has it: (a) the identity of the controller and of his representative, if any; (b) the purposes of the processing; (c) any further information such as the categories of data concerned; the recipients or categories of recipients; the existence of the right of access to and the right to rectify the data concerning him, in so far as such further information is necessary, having regard to the specific circumstances in which the data are processed, to guarantee fair processing in respect of the data subject. 2. Paragraph 1 shall not apply where, in particular for processing for statistical purposes or for the purposes of historical or scientific research, the provision of such information proves impossible or would involve a disproportionate effort or if recording or disclosure is expressly laid down by law. In these cases, Member States shall provide appropriate safeguards.

Finally, section V and VII, recognized to the user specific rights: the right of access in Article 12[155] (access to personal data and relative processed information and as appropriate the rectification, erasure or blocking of data the processing of which does not comply with the provisions of the Directive) and the right to object in Article 14[156] (the objection to the processing of personal data under specific circumstances).

In 2018 the Data Protection Directive has been replaced by the GDPR, or General Data Protection Regulation (2016/279)[157].

First off, the GDPR, taking back some of the conditions and definitions of the Directive, presents in Article 5[158] the principles to processing of personal data. Among them: (a) lawfulness, fairness and transparency; (b) purpose limitation; (c) data minimisation; (d) accuracy; (e) storage limitation; (f) accountability.

For the purpose of this analysis, it is relevant to take into-account the principle of lawfulness, fairness and transparency, according to which personal data shall be processed *lawfully, fairly* and in a *transparent manner* in relation to the data subject. Here we can notice a clear link between fairness and transparency, that will be further explored in paragraph 1.4.

Article 6[159], concerning the lawfulness of the processing, lists all the conditions under which processing shall be lawful, extending what already drafted in Article 7 of the Directive 96/45/EC. Again, processing shall

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[155] Article 12 Directive 95/46/EC – Right of access: Member States shall guarantee every data subject the right to obtain from the controller: (a) without constraint at reasonable intervals and without excessive delay or expense: confirmation as to whether or not data relating to him are being processed and information at least as to the purposes of the processing, the categories of data concerned, and the recipients or categories of recipients to whom the data are disclosed; communication to him in an intelligible form of the data undergoing processing and of any available information as to their source; knowledge of the logic involved in any automatic processing of data concerning him at least in the case of the automated decisions referred to in Article 15 (1); (b) as appropriate the rectification, erasure or blocking of data the processing of which does not comply with the provisions of this Directive, in particular because of the incomplete or inaccurate nature of the data; (c) notification to third parties to whom the data have been disclosed of any rectification, erasure or blocking carried out in compliance with (b), unless this proves impossible or involves a disproportionate effort.

[156] Article 14 Directive 95/46/EC – The data subject's right to object: Member States shall grant the data subject the right: (a) at least in the cases referred to in Article 7 (e) and (f), to object at any time on compelling legitimate grounds relating to his particular situation to the processing of data relating to him, save where otherwise provided by national legislation. Where there is a justified objection, the processing instigated by the controller may no longer involve those data; (b) to object, on request and free of charge, to the processing of personal data relating to him which the controller anticipates being processed for the purposes of direct marketing, or to be informed before personal data are disclosed for the first time to third parties or used on their behalf for the purposes of direct marketing, and to be expressly offered the right to object free of charge to such disclosures or uses. Member States shall take the necessary measures to ensure that data subjects are aware of the existence of the right referred to in the first subparagraph of (b).

[157] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679].

[158] Article 5 GDPR – Principles relating to the processing of personal data: 1. Personal data shall be: (a) processed lawfully, fairly and in a transparent manner in relation to the data subject ('lawfulness, fairness and transparency'); (b) collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes; further processing for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes shall, in accordance with Article 89(1), not be considered to be incompatible with the initial purposes ('purpose limitation'); (c) adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed ('data minimisation'); (d) accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that personal data that are inaccurate, having regard to the purposes for which they are processed, are erased or rectified without delay ('accuracy'); (e) kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed; personal data may be stored for longer periods insofar as the personal data will be processed solely for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes in accordance with Article 89(1) subject to implementation of the appropriate technical and organisational measures required by this Regulation in order to safeguard the rights and freedoms of the data subject ('storage limitation'); (f) processed in a manner that ensures appropriate security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures ('integrity and confidentiality'). 2. The controller shall be responsible for, and be able to demonstrate compliance with, paragraph 1 ('accountability').

[159] Article 6 GDPR: 1. Processing shall be lawful only if and to the extent that at least one of the following applies: (a) the data subject has given consent to the processing of his or her personal data for one or more specific purposes; (b) processing is necessary for the performance of a contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering into a contract; (c) processing is necessary for compliance with a legal obligation to which the controller is subject; (d) processing is

be lawful only if the data subject has given *consent* to the processing of his or her personal data, for one or more specific purposes, or processing is necessary for the performance of a contract to which the data subject is party; alternatively, with other relevant criteria[160].

Where processing is based on consent, relevant conditions for lawfulness of consent are listed in Article 7 of GDPR[161]. In the Regulation, consent of the data subject means any *freely given*, *specific*, *informed* and *unambiguous* indication of the data subject's wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her. Consent may be withdrawn by the user at any time.

Also in the GDPR, there is a Section (Section 2) dedicated to the information that shall be provided to the data subject, both in case where personal data are collected from the data subject (Article 13[162]) and in case

necessary in order to protect the vital interests of the data subject or of another natural person; (e) processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller; (f) processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child. Point (f) of the first subparagraph shall not apply to processing carried out by public authorities in the performance of their tasks. 2. Member States may maintain or introduce more specific provisions to adapt the application of the rules of this Regulation with regard to processing for compliance with points (c) and (e) of paragraph 1 by determining more precisely specific requirements for the processing and other measures to ensure lawful and fair processing including for other specific processing situations as provided for in Chapter IX. 3. The basis for the processing referred to in point (c) and (e) of paragraph 1 shall be laid down by: (a) Union law; or (b) Member State law to which the controller is subject. The purpose of the processing shall be determined in that legal basis or, as regards the processing referred to in point (e) of paragraph 1, shall be necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller. That legal basis may contain specific provisions to adapt the application of rules of this Regulation, inter alia: the general conditions governing the lawfulness of processing by the controller; the types of data which are subject to the processing; the data subjects concerned; the entities to, and the purposes for which, the personal data may be disclosed; the purpose limitation; storage periods; and processing operations and processing procedures, including measures to ensure lawful and fair processing such as those for other specific processing situations as provided for in Chapter IX. The Union or the Member State law shall meet an objective of public interest and be proportionate to the legitimate aim pursued. 4. Where the processing for a purpose other than that for which the personal data have been collected is not based on the data subject's consent or on a Union or Member State law which constitutes a necessary and proportionate measure in a democratic society to safeguard the objectives referred to in Article 23(1), the controller shall, in order to ascertain whether processing for another purpose is compatible with the purpose for which the personal data are initially collected, take into account, inter alia: (a) any link between the purposes for which the personal data have been collected and the purposes of the intended further processing; (b) the context in which the personal data have been collected, in particular regarding the relationship between data subjects and the controller; (c) the nature of the personal data, in particular whether special categories of personal data are processed, pursuant to Article 9, or whether personal data related to criminal convictions and offences are processed, pursuant to Article 10; (d) the possible consequences of the intended further processing for data subjects; (e) the existence of appropriate safeguards, which may include encryption or pseudonymisation.

[160] See points 1.b – 1.f note 158.

[161] Article 7 GDPR - "Conditions for consent: 1. Where processing is based on consent, the controller shall be able to demonstrate that the data subject has consented to processing of his or her personal data. 2. If the data subject's consent is given in the context of a written declaration which also concerns other matters, the request for consent shall be presented in a manner which is clearly distinguishable from the other matters, in an intelligible and easily accessible form, using clear and plain language. Any part of such a declaration which constitutes an infringement of this Regulation shall not be binding. 3. The data subject shall have the right to withdraw his or her consent at any time. The withdrawal of consent shall not affect the lawfulness of processing based on consent before its withdrawal. Prior to giving consent, the data subject shall be informed thereof. It shall be as easy to withdraw as to give consent. 4. When assessing whether consent is freely given, utmost account shall be taken of whether, inter alia, the performance of a contract, including the provision of a service, is conditional on consent to the processing of personal data that is not necessary for the performance of that contract".

[162] Article 13 GDPR - Information to be provided where personal data are collected from the data subject: 1. Where personal data relating to a data subject are collected from the data subject, the controller shall, at the time when personal data are obtained, provide the data subject with all of the following information: (a) the identity and the contact details of the controller and, where applicable, of the controller's representative; (b) the contact details of the data protection officer, where applicable; (c) the purposes of the processing for which the personal data are intended as well as the legal basis for the processing; (d) where the processing is based on point (f) of Article 6(1), the legitimate interests pursued by the controller or by a third party; (e) the recipients or categories of recipients of the personal data, if any; (f) where applicable, the fact that the controller intends to transfer personal data to a third country or international organisation and the existence or absence of an adequacy decision by the Commission, or in the case of transfers referred to in Article 46 or 47, or the second subparagraph of Article 49(1), reference to the appropriate or suitable safeguards and the means by which to obtain a copy of them or where they have been made available. 2. In addition to the information referred to in paragraph 1, the controller

where personal data are not obtained from the data subject (Article 14[163]); in the second case, the data controller must provide the information within a reasonable period of time after obtaining the personal data. The two articles outline that data subjects, in particular, should receive relevant information about the identity and the contract details of the controller and of the data protection officer (i.e. enterprise security leadership role required by the General Data Protection Regulation (GDPR) responsible for overseeing a company's data protection strategy and its implementation to ensure compliance with GDPR requirements); they should be informed about the purposes of the processing, the legal basis for the processing and the recipients[164] or

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shall, at the time when personal data are obtained, provide the data subject with the following further information necessary to ensure fair and transparent processing: (a) the period for which the personal data will be stored, or if that is not possible, the criteria used to determine that period; (b) the existence of the right to request from the controller access to and rectification or erasure of personal data or restriction of processing concerning the data subject or to object to processing as well as the right to data portability; (c) where the processing is based on point (a) of Article 6(1) or point (a) of Article 9(2), the existence of the right to withdraw consent at any time, without affecting the lawfulness of processing based on consent before its withdrawal; (d) the right to lodge a complaint with a supervisory authority; (e) whether the provision of personal data is a statutory or contractual requirement, or a requirement necessary to enter into a contract, as well as whether the data subject is obliged to provide the personal data and of the possible consequences of failure to provide such data; (f) the existence of automated decision-making, including profiling, referred to in Article 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. 3. Where the controller intends to further process the personal data for a purpose other than that for which the personal data were collected, the controller shall provide the data subject prior to that further processing with information on that other purpose and with any relevant further information as referred to in paragraph 2. 4. Paragraphs 1, 2 and 3 shall not apply where and insofar as the data subject already has the information.

[163] Article 14 GDPR - Information to be provided where personal data have not been obtained from the data subject: 1.Where personal data have not been obtained from the data subject, the controller shall provide the data subject with the following information: (a) the identity and the contact details of the controller and, where applicable, of the controller's representative; (b) the contact details of the data protection officer, where applicable; (c) the purposes of the processing for which the personal data are intended as well as the legal basis for the processing; (d) the categories of personal data concerned; (e) the recipients or categories of recipients of the personal data, if any; (f)where applicable, that the controller intends to transfer personal data to a recipient in a third country or international organisation and the existence or absence of an adequacy decision by the Commission, or in the case of transfers referred to in Article 46 or 47, or the second subparagraph of Article 49(1), reference to the appropriate or suitable safeguards and the means to obtain a copy of them or where they have been made available. 2.In addition to the information referred to in paragraph 1, the controller shall provide the data subject with the following information necessary to ensure fair and transparent processing in respect of the data subject: (a) the period for which the personal data will be stored, or if that is not possible, the criteria used to determine that period; (b) where the processing is based on point (f) of Article 6(1), the legitimate interests pursued by the controller or by a third party; (c) the existence of the right to request from the controller access to and rectification or erasure of personal data or restriction of processing concerning the data subject and to object to processing as well as the right to data portability; (d) where processing is based on point (a) of Article 6(1) or point (a) of Article 9(2), the existence of the right to withdraw consent at any time, without affecting the lawfulness of processing based on consent before its withdrawal; (e) the right to lodge a complaint with a supervisory authority; (f) from which source the personal data originate, and if applicable, whether it came from publicly accessible sources; (g) the existence of automated decision-making, including profiling, referred to in Article 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. 3.The controller shall provide the information referred to in paragraphs 1 and 2: (a) within a reasonable period after obtaining the personal data, but at the latest within one month, having regard to the specific circumstances in which the personal data are processed; (b) if the personal data are to be used for communication with the data subject, at the latest at the time of the first communication to that data subject; or (c) if a disclosure to another recipient is envisaged, at the latest when the personal data are first disclosed. 4.Where the controller intends to further process the personal data for a purpose other than that for which the personal data were obtained, the controller shall provide the data subject prior to that further processing with information on that other purpose and with any relevant further information as referred to in paragraph 2. 5.Paragraphs 1 to 4 shall not apply where and insofar as: (a) the data subject already has the information; (b) the provision of such information proves impossible or would involve a disproportionate effort, in particular for processing for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes, subject to the conditions and safeguards referred to in Article 89(1) or in so far as the obligation referred to in paragraph 1 of this Article is likely to render impossible or seriously impair the achievement of the objectives of that processing. In such cases the controller shall take appropriate measures to protect the data subject's rights and freedoms and legitimate interests, including making the information publicly available; (c) obtaining or disclosure is expressly laid down by Union or Member State law to which the controller is subject and which provides appropriate measures to protect the data subject's legitimate interests; or (d) where the personal data must remain confidential subject to an obligation of professional secrecy regulated by Union or Member State law, including a statutory obligation of secrecy.

[164] "'recipient' means a natural or legal person, public authority, agency or another body, to which the personal data are disclosed, whether a third party or not. However, public authorities which may receive personal data in the framework of a particular inquiry in

categories of recipients of personal data. Additionally, if the data controller intends to transfer personal data to a third country or international organisation, data subjects should be informed.

Section 2 stresses again the relevance of the *information paradigm* within the EU legal framework. Finally, the GDPR extends the rights of the user, recognising him/her the right of access[165] (access to personal data and relative processed information), the right to rectification[166] (the rectification of inaccurate personal data concerning him or her under specific condition), the right to be forgotten[167](the deletion of personal data under specific condition), data portability[168] (the reception of personal data in a structured, commonly used and machine-readable format and the transmission of those data to another controller) and rights about

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accordance with Union or Member State law shall not be regarded as recipients; the processing of those data by those public authorities shall be in compliance with the applicable data protection rules according to the purposes of the processing" Article 4 GDPR.

[165] Article 15 GDPR - Right of access by the data subject: 1. The data subject shall have the right to obtain from the controller confirmation as to whether or not personal data concerning him or her are being processed, and, where that is the case, access to the personal data and the following information: the purposes of the processing; the categories of personal data concerned; the recipients or categories of recipient to whom the personal data have been or will be disclosed, in particular recipients in third countries or international organisations; where possible, the envisaged period for which the personal data will be stored, or, if not possible, the criteria used to determine that period; the existence of the right to request from the controller rectification or erasure of personal data or restriction of processing of personal data concerning the data subject or to object to such processing; the right to lodge a complaint with a supervisory authority; where the personal data are not collected from the data subject, any available information as to their source; the existence of automated decision-making, including profiling, referred to in Article 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. 2. Where personal data are transferred to a third country or to an international organisation, the data subject shall have the right to be informed of the appropriate safeguards pursuant to Article 46 relating to the transfer. 3. The controller shall provide a copy of the personal data undergoing processing. 2For any further copies requested by the data subject, the controller may charge a reasonable fee based on administrative costs. Where the data subject makes the request by electronic means, and unless otherwise requested by the data subject, the information shall be provided in a commonly used electronic form. 4. The right to obtain a copy referred to in paragraph 3 shall not adversely affect the rights and freedoms of others.

[166] Article 16 GDPR - The data subject shall have the right to obtain from the controller without undue delay the rectification of inaccurate personal data concerning him or her. Taking into-account the purposes of the processing, the data subject shall have the right to have incomplete personal data completed, including by means of providing a supplementary statement.

[167] Article 17 GDPR – Right to Erasure ('right to be forgotten'): 1. The data subject shall have the right to obtain from the controller the erasure of personal data concerning him or her without undue delay and the controller shall have the obligation to erase personal data without undue delay where one of the following grounds applies: (a) the personal data are no longer necessary in relation to the purposes for which they were collected or otherwise processed; (b) the data subject withdraws consent on which the processing is based according to point (a) of Article 6(1), or point (a) of Article 9(2), and where there is no other legal ground for the processing; (c) the data subject objects to the processing pursuant to Article 21(1) and there are no overriding legitimate grounds for the processing, or the data subject objects to the processing pursuant to Article 21(2); (d) the personal data have been unlawfully processed; (e) the personal data have to be erased for compliance with a legal obligation in Union or Member State law to which the controller is subject; (f) the personal data have been collected in relation to the offer of information society services referred to in Article 8(1). Where the controller has made the personal data public and is obliged pursuant to paragraph 1 to erase the personal data, the controller, taking account of available technology and the cost of implementation, shall take reasonable steps, including technical measures, to inform controllers which are processing the personal data that the data subject has requested the erasure by such controllers of any links to, or copy or replication of, those personal data. 3. Paragraphs 1 and 2 shall not apply to the extent that processing is necessary: for exercising the right of freedom of expression and information; for compliance with a legal obligation which requires processing by Union or Member State law to which the controller is subject or for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller; for reasons of public interest in the area of public health in accordance with points (h) and (i) of Article 9(2) as well as Article 9(3);(d) for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes in accordance with Article 89(1) in so far as the right referred to in paragraph 1 is likely to render impossible or seriously impair the achievement of the objectives of that processing; or (e) for the establishment, exercise or defence of legal claims.

[168] Article 20 GDPR – Right to data portability: 1. The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where: (a) the processing is based on consent pursuant to point (a) of Article 6(1) or point (a) of Article 9(2) or on a contract pursuant to point (b) of Article 6(1); and (b) the processing is carried out by automated means. 2. In exercising his or her right to data portability pursuant to paragraph 1, the data subject shall have the right to have the personal data transmitted directly from one controller to another, where technically feasible. 3. The exercise of the right referred to in paragraph 1 of this Article shall be without prejudice to Article 17. That right shall not apply to processing necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller. 4. The right referred to in paragraph 1 shall not adversely affect the rights and freedoms of others.

profiling[169] (particularly the right to object the processing of personal data and the right not to be subject to a decision based solely on automated processing, including profiling), with restrictions on the exercise of these rights, among which national security, defence, prevention and repression of crimes and public security.

Additional protection for individuals operating within the digital market comes from Directive 2002/58/EC of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications)[170]; the aim of the Directive is ensure an equivalent level of protection of fundamental rights and freedoms, and in particular the right to privacy, with respect to the processing of personal data in the electronic communication sector and to ensure the free movement of such data and of electronic communication equipment and services in the Community. Storing of information (such as placement of cookies) in the terminal equipment of a subscriber or user requires consent which is to be understood the same way as under the GDPR.

The discussion on data protection fits in the analysis of consumer protection since they are t*wo sides of the same coin*: they both focus on the protection of a weaker physical subject, in one case represented by the consumer and on the other represented by the data subject, acting on the market, either the market of goods and services or the digital market. "In electronic commerce, these two subjects act in very similar situations: they interact on the computer, rather than in a physical space, they stipulate contracts with a counterpart who has more information that they do and who deals with a multitude of subjects online. […] In most of the juridical relationships, the consumer and the data subject are indeed the same person"[171].

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[169] Article 21 GDPR – Right to object: 1. The data subject shall have the right to object, on grounds relating to his or her particular situation, at any time to processing of personal data concerning him or her which is based on point (e) or (f) of Article 6(1), including profiling based on those provisions. The controller shall no longer process the personal data unless the controller demonstrates compelling legitimate grounds for the processing which override the interests, rights and freedoms of the data subject or for the establishment, exercise or defence of legal claims. 2. Where personal data are processed for direct marketing purposes, the data subject shall have the right to object at any time to processing of personal data concerning him or her for such marketing, which includes profiling to the extent that it is related to such direct marketing. 3. Where the data subject objects to processing for direct marketing purposes, the personal data shall no longer be processed for such purposes. 4. At the latest at the time of the first communication with the data subject, the right referred to in paragraphs 1 and 2 shall be explicitly brought to the attention of the data subject and shall be presented clearly and separately from any other information. 5. In the context of the use of information society services, and notwithstanding Directive 2002/58/EC, the data subject may exercise his or her right to object by automated means using technical specifications. 6. Where personal data are processed for scientific or historical research purposes or statistical purposes pursuant to Article 89(1), the data subject, on grounds relating to his or her particular situation, shall have the right to object to processing of personal data concerning him or her, unless the processing is necessary for the performance of a task carried out for reasons of public interest.

Article 22 GDPR - Automated individual decision-making, including profiling: 1. The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her. 2. Paragraph 1 shall not apply if the decision: (a) is necessary for entering into, or performance of, a contract between the data subject and a data controller; (b) is authorised by Union or Member State law to which the controller is subject and which also lays down suitable measures to safeguard the data subject's rights and freedoms and legitimate interests; or(c) is based on the data subject's explicit consent. 3. In the cases referred to in points (a) and (c) of paragraph 2, the data controller shall implement suitable measures to safeguard the data subject's rights and freedoms and legitimate interests, at least the right to obtain human intervention on the part of the controller, to express his or her point of view and to contest the decision.4. Decisions referred to in paragraph 2 shall not be based on special categories of personal data referred to in Article 9(1), unless point (a) or (g) of Article 9(2) applies and suitable measures to safeguard the data subject's rights and freedoms and legitimate interests are in place.

[170] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0058&from=EN].

[171] Ratti, M. (2018). Personal-Data and Consumer Protection: What Do They Have in Common?. In *Personal Data in Competition, Consumer Protection and Intellectual Property Law* (pp. 377-393). Springer, Berlin, Heidelberg.

In order to highlight the common points between data protection and consumer protection is relevant to take into-account the CRD, the Directive 96/45/EC and the GDPR.

First off, from a general point of view, European laws on the processing of personal data and on B2C (business to consumer) contracts aim at providing *transparency*. In the case of the CRD, the trader is obliged to accurately inform data subjects of the contract terms and the goods or services exchanged, both in case of in presence, distance and off-premises contracts, as outlined by Chapter II (Article 5) and III (Articles 6,7,8), analysed in section 1.2.3.

Secondly, in case of litigation, the European Regulation 1215/2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters[172] establishes specific rules over consumer contracts.

Thirdly, the consumer benefits of right of withdrawal under Article 9 of the CRD.

Hence, "it seems possible to identify at least three different legal instruments provided for by the European legislation on B2C contracts aiming to grant consumer protection: the *information requirements* to be met by the trader, the *consumer right to withdraw* (among other rights) and the *jurisdictional protection*"[173].

Similarly, in case of personal data protection, according to both Directive 95/46/EC and more importantly to the GDPR, data controllers must provide relevant information to data subjects and recognize them their well-defined rights (among which the right to object and the right of withdrawal). In conclusion, users benefit, as well, of jurisdictional protection under the European Regulation 1215/2012.

Finally, it is interesting to make a comparison between the right of withdrawal as developed in Article 9 of the CRD and the right of withdrawal illustrated in Article 14 of the GDPR. In the first case, the consumer can withdraw from off-premises contracts within fourteen days of delivery of the goods or the conclusion of the service contract without any explanation or cost (with some exceptions, as explained in section 1.2.3). In the second case, the data subject can withdraw the consent to the processing of data anytime.

> "Personal-data protection is indeed recognised by Article 8 of the Charter of Fundamental Rights of the European Union. Personal data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law. Such a right has been classified as fundamental, and, as such, cannot become the subject of any contract. For such a reason, the data subject withdrawal right provided for by the GDPR has no time limit".[174]

1.3.2 Toward a holistic approach for data protection

As a result of the development of network activities, together with the exploitation of Big Data, users have been increasingly exposed to risks related to their protection and, in particular, to the protection of their data.

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[172] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012R1215&from=EN].
[173] Ratti, M. (2018). Personal-Data and Consumer Protection: What Do They Have in Common?. In *Personal Data in Competition, Consumer Protection and Intellectual Property Law* (pp. 377-393). Springer, Berlin, Heidelberg.
[174] *Ibidem*.

According to Graef et al., "recent years have shown a surge of interest from various enforcement agencies to remedy the commercial behaviour exploiting the increasing information and power asymmetries between consumers and firms" [175]; among recently introduced commercial practices taking advantage of these asymmetries and endangering consumers and users, it is possible to identify *Dark Patterns*, that will be the core of this analysis.

Data represent a valuable digital asset for companies, that can exploit them in their IP portfolio to carry out unfair commercial practices, and, more generally to jeopardise competition. It follows then, there is a growing interaction between competition, data protection and consumer law and enforcement actions, to counteract these new risks, demonstrate clear interconnections between legal fields that have been traditionally applied and enforced in isolation.

> "The Italian Competition, Communications and Data Protection Authority opened a joint "big data" sector inquiry in May 2017 that not only aims to identify potential competition concerns but also define a regulatory framework able to foster competition in the markets of the digital economy, to protect privacy and consumers, and to promote pluralism within the digital ecosystem"[176].

Focusing on the singular legal fields, data protection law "aims to protect autonomous decision-making by data subjects, but also more broadly includes the safeguarding of a secure and fair personal data processing environment"[177]. Secondly, "consumer protection law empowers individuals to make *well-informed autonomous choices*"[178], protecting their interests and balancing them with the interests of the traders or suppliers and the general interests of the internal market. Finally, competition law "aims to keep markets competitive so to ensure that consumers have such choices. As such, competition enforcement is vital to protect consumers against distortions of competition but a precondition for the existence of a well-functioning market is that individuals are able to exercise a genuine and *informed choice*"[179].

Despite the three different legal fields may present overlaps in their application, according to Graef et al. and to La Diega, it is possible to envisage a holistic approach within the EU legal framework, that goes beyond the possible overlaps between different legal fields and promotes an effective protection of individuals within the EU digital market. It is possible to identify in the Modernisation Directive (2019) an initial approach to bring together different legal fields: the regulation of B2C practices will be combined to the regulation of online commercial practices, particularly "new information duty in relation to online marketplaces will be introduced in Article 7.4 UCPD"[180].

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[175] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 200.
[176] *Ibidem.*
[177] *Id*, 203.
[178] *Ibidem.*
[179] *Id*, 200.
[180] Duivenvoorde, B. (2019). The Upcoming Changes in the Unfair Commercial Practices Directive: A Better Deal for Consumers? *Journal of European Consumer and Market Law*, *8*(6).

1.3.3 Fairness as *trait d'union*

So far, the creation of a holistic approach seems difficult to achieve, since, as outlined before, the three different legal fields may present overlaps. Therefore, they have been mainly applied in isolation and "the approach being taken to data in Europe is far from holistic"[181].

Nevertheless, there is one basic principle that allow to bring together different legal fields in the EU legal framework: the *principle of fairness*.

The construction of a *fairness-oriented holistic* legal framework is particularly relevant to the extent that it makes possible to attain the *consumer welfare*. In Willet's analysis, that will be further explored in next sections, with welfarism is meant that "the agenda to protect the interests of the weaker party [which is identified in the consumer] is in broad congruence with the values of the welfare state" [182]. The welfare state is a type of governing oriented to the protection and promotion of the economic and social well-being of the citizens and based on the principles of equality of opportunity, equitable distribution of wealth, and public responsibility for those unable to avail themselves of the minimal provisions of a good life. Within the EU community, together with this approach, there is an attempt to embrace the principles of the libertarian model, aiming at *perfect competition* and *wealth maximization*.

The principle of fairness seems to represent a good starting point to reach the benefit of the consumers, of the business entities and of the EU economy as a whole, especially considering the new threats within the digital economy.

1.4 Fairness under the EU legal framework

The concept of fairness has been integrated and developed within the EU legal framework, not only in primary law (EU Treaties) but also in secondary law, namely body of law that comes from the principles and objectives of the treaties, including regulations, directives, decisions, recommendations and opinions.

There are three legal fields of relevance with respect to conducting an analysis of the principle of fairness, namely data protection law, consumer protection law and competition law.

Relating to data protection law, as outlined in section 1.3.1, the GDPR is one of the main normative tools; additionally, it is relevant to acknowledge in this framework the E-Commerce Directive (Directive 2000/31/EC), that has established harmonised rules on issues such as transparency and information requirements for online service providers, commercial communications, electronic contracts and limitations of liability of intermediary service providers.

[181] La Diega, G. N. (2018). Data as Digital Assets. The Case of Targeted Advertising. In *Personal Data in Competition, Consumer Protection and Intellectual Property Law* (pp. 445-499). Springer, Berlin, Heidelberg, 489.
[182] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 33

Secondly, with reference to consumer protection law, as outlined in paragraph 1.2 of this analysis, there are numerous normative tools, but, for the purpose of this analysis, it is relevant to take into-account the UTD and the UCPD.

Finally, in the field of competition law, it is relevant to analyse the Treaty on the Functioning of the European Union (TFEU), specifically provisions outlying the idea of fairness.

1.4.1 Definition and Interpretation of Fairness

As a starting point for the definition and interpretation of fairness as a general overarching principle in the EU legal framework, it is worth looking at its dictionary definition.

According to the Oxford Dictionary and to the Cambridge Dictionary, fairness is defined as "the quality of treating people equally or in a way that is reasonable"[183].

The provided definition is somewhat generic, but at the same time "indicates that fairness requires different forms of protection and such calls for the parallel application of several legal regimes"[184].

Focusing on the contract discipline, the concept of fairness can be better analysed by dividing it into procedural fairness and substantive fairness, as suggested by Willet.

The first element refers to the process leading to the contract, that, from the point of view of the consumer, is affected by three main elements: the level of transparency, the presence of alternative options and the bargaining power of the contracting parties.

On the other side, substantive fairness reflects the substantive features of the agreement, in other words the *nature of the contract terms*, their compliance with default rules and standards, and the correct balance between the contractual terms within the contract, namely whether the unfairness of a term can be counterbalanced by other terms that are especially favourable to the consumer.

Standard form contracts represent a central point in the contract discipline and in the analysis of fairness, since "they represent the supplier's attempt to plan for eventualities of the relationship, such as disputes as to the mode/quality of performance, financial responsibilities and the withdrawal of service"[185]. First off, they are beneficial from an efficiency point of view, since they are used for all the transactions of that type which a particular firm enters with consumers: they allow to save time on individual negotiations with each consumer and to cover all the possible issues and eventualities that may come into-play. Secondly, according to Llewellyin[186], standard form contracts save time and trouble in bargaining, simplifying the task of internal administration and the related costs. Additionally, according to Beale[187], this form of contract is beneficial

[183] Fairness definition in Oxford Learner's Dictionaries [oxfordlearnersictionaries.com] available at [https://www.oxfordlearnersdictionaries.com/definition/american_english/fairness].Fairness definition in Cambridge Dictionary [dictionary.cambridge.org] available at [https://dictionary.cambridge.org/it/dizionario/inglese/fairness].

[184] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 203.

[185] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 16.

[186] Llewellyn, K. N. The Common Law Tradition: Deciding Appeals (Little Brown 1960) 365, quoting Karl N Llewellyn,'Book Review'(1939). *Harvard Law Review*, *52*, 700-703.

[187] Beale, H. (1989). Unfair Contracts in Britain and Europe. Current Legal Problems, 42(1), 197-215.

because it provides "a system of mass production which allows more and more people to obtain goods and services they might not otherwise be able to afford"[188].

It is clear then that standard form contracts are beneficial within the contract discipline; however, it is still necessary to define the attitude to take to the particular types of terms that are used within the contract and the way in which they are used. "One way of viewing the situation is to see there as being a choice between freedom-oriented and fairness-oriented philosophies"[189].

The first approach is mainly focused on the self-reliant freedom of the parties, both in relation to the process leading up to the bargaining and in relation to the substantive terms which can be agreed to. By contrast, a fairness-oriented approach seeks to balance the interest of the parties to the contract, and, in particular, to safeguard the substantive and procedural interests of the consumer, that is considered as the perceived weaker party.

At the outset of the analysis of the first approach (i.e., freedom-oriented) it is useful to make a distinction between freedom *of* contract and freedom *from* contract.

The latter is generally intended as a negative freedom, basically concerned with the choice to enter or not to enter in a contract, whereas the freedom of contract is a more positive concept being about "the creative power of the participants in the contractual process to act as private legislators and to legislate rights and duties binding upon themselves"[190].

This positive form of freedom reflects the freedom of parties to pursue self-interest through contracting, which is "the idea that the parties should be free to reach enforceable agreements on the terms that they consider to be in their own best interests"[191]. It is a non-contextual form of freedom, focused on the freedom to understand, choose, bargain, agree, not agree, depending wholly on one's own judgments and abilities and not concerning the ways in which the substantive interest of the parties might be affected by the exercise of self-reliant freedom. "In broad terms the freedom-oriented approach […] is typically justified from one or both of the following standpoints. First, there is the idea of respect for the individual right to make free and autonomous choice. Second, there is the more utilitarian notion of maximization of overall welfare"[192].

From a procedural point of view, since the freedom-oriented approach is concerned to maximize self-reliant freedom to pursue self-interest in the conclusion of the contract, there is an attempt to minimize the constrains that exist on the bringing about a binding agreement: minimal attention should be paid to restrictions on consumer information and consumer options. Hence, minimal transparency should be required. From one side there is the freedom of the consumer: assuming that the consumer has a basic awareness that the terms exist, he/she is free to decide whether to enter in the contract or not. From the other side, there is the freedom of the trader: the maximization of the trader's freedom requires limited transparency requirements since the imposition of too many requirements hinder him/her in the pursuit of his/her self-interest. "This approach

[188] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 16.
[189] *Id*, 17.
[190] *Id,* 7-8.
[191] *Id*, 20.
[192] *Id*, 21/22.

clearly seems to involve restricting interventions to cases where the choice of the consumer has been restricted by physical force and threats of physical force and the will of the consumer has either been wholly overborne or at least his alternatives haves been reduced to a significant extent"[193]. Substantial restriction on choice, caused by force or threat, indicates that there is very little freedom left for the consumer.

From a freedom-oriented perspective, hence, interventions shall be reduced to a minimum in order to leave the trader free to maximize his/her interests. The consumer is viewed as free to choose to seek to bargain for better terms and to choose not to contract with the trader. "However, no heed is paid to whether he has the bargaining strength to make this feasible and whether it is realistic to expect him to go without the goods and services"[194]. Nevertheless, from the freedom-oriented approach, it seems that there is more room for intervention in the case of lack of transparency: "knowledge seems to be a more fundamental element of free agency than choice to or bargaining strength […]. Having a choice of terms and/or being in a good bargaining position to obtain better terms are useless if a party does not know what is on offer in the first place"[195].

Focusing instead on the issue of substance within the contract, according to the freedom of contract approach, if the minimal procedural standards required are satisfied, the resulting terms should be enforced, regardless of their substantive features and the extent to which these substantive features are fair to one of the parties. If those standards are not met, then there is no satisfactory agreement that can be enforced. As pointed out above, the freedom-oriented approach is non-contextual and abstract: "it is not concerned with the ways in which the parties (given their financial or other interests and position) might be affected by substantive terms"[196].

Moving to the fairness-oriented approach, that will be central in this analysis, it is firstly necessary to point out that it is less concerned with the freedom of individuals, as intended in the freedom-oriented approach, and more concerned with the context. Additionally, it views the parties other than as abstract persons, focusing rather on the characteristics of consumers and traders, and it is concerned with the way in which the physical, property, social and economic interest of the parties are affected by substantive terms, looking, on the other side, at the factors that might affect the abilities of such parties to protect their interests in the process leading to the contract.

In the contract discipline, the *weaker party* is perceived to be *the consumer* and, since the agenda of the fairness-oriented perspective is to fairly balance the interests of the parties, normally this means protecting the interests of the perceived "weaker" party.

Despite the fairness-oriented approach differs from the freedom-oriented approach, it remains possible to consider such perspective as representing a particular form of freedom. Particularly, considering that there has only been effective freedom for the consumer if the terms are sufficiently transparent to enable an informed

[193]Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 27.
[194]*Id*, 30.
[195]*Ibidem.*
[196]*Id*, 32.

decision to be made, it is possible to identify a version of freedom inspired by sensitivity to the context and concerned with fairness.

Fairness is relevant not only with respect to the objective to fairly balance the interests of the parties, but it often forms part of broader agendas such as welfarism, efficiency and the EC market building; accordingly, Willet refers to a *fairness umbrella* (i.e., fairness as an overarching principle within the different agendas in the EU community).

Focusing on the substantive terms within the contract, the fairness-oriented approach, in contrast to the freedom-oriented one, does take account of the way that terms affect the interests of the parties.

"An important aspect of the fairness/protection of consumer interests in the context of consumer contracts is the idea that consumers enter contracts in order to sustain and enhance the private sphere of life, rather than to make a profit"[197]. Therefore, the terms within the contracts may affect the physical safety, proprietary, economic and social interest that come into play. Default rules are considered to be a good solution under this perspective, since they are often based on some kind of balancing of the interests of the parties. Accordingly, the use of default rules is central in the EU contract discipline and the UTD specifically aims to protect consumers from standard contract terms that distort the balance between their and the trader's interests[198].

On the other hand, as already outlined, the *process* leading to the contract "may affect what the consumer expects to get from the contract and the ability of the consumer to protect his interests in relation to substantive terms"[199].

The lack of transparency of the contract terms leads to a lack of informed consent and it may also undermine competition: "if the terms are not transparent and consumers cannot understand and compare the offerings of different traders, there will be no incentive for traders to compete with one another for the business of consumers"[200].

Terms need to be transparent since it is unlikely that consumers may fill this gap: they may not be familiar with legal knowledge required in case of terms employing legal jargon; they may face a range of complex decisions, hence it may be difficult for them to focus on and understand the formal terms within the contract; they may not attain to understand the formal terms because they do not believe that they could ever persuade the trader to change them or that other traders will offer anything pretty different; finally, they may lack of time while taking decisions. With respect to the latter, under the economic view, since transaction costs come into play, it is not reasonable to expect consumers to invest time "in very dull activities like reading standard form conditions instead of doing something more attractive"[201].

[197]Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 37.
[198]Luzak, J. (2012). Unfair commercial practice≠ unfair contract term≠ void contract: The CJEU's judgment in the case C-453/10 (Pereničová and Perenič). *Ars Aequi*, *61*, 428-432.
[199]Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 39.
[200]*Id*, 40.
[201]*Id*, 43.

Moreover, focusing on the consumer's lack of bargaining power, the fairness-oriented approach recognizes that it is very unrealistic to expect consumers to bargain for better terms: traders usually benefit of a greater market power, as well as greater knowledge, expertise and resources.

As a general solution, to the extent that the agenda under the fairness-oriented approach is to help consumers protect their substantive interests, the degree of transparency required may be in function of the degree of unfairness in substance. Following this reasoning, it should be considered the *degree of substantive detriment*, namely focus should be bring to the term itself and the broader questions of unfairness in substance, including, for example, the extent to which any detriment is *counteracted* or *balanced out* by other terms of the contract that are favourable for the consumer, with the following conclusion: "the greater the unfairness in substance the more should be required by the way of transparency, and vice versa"[202]. However, this is not the case: transparency is *always necessary,* and it is fundamental to assess the unfair nature of a term within the contract. Just to provide an example, if there is a term excluding liability, but at the same time the price package is favourable, the consumer has an interest in being able to assess the risks in place, even if the favourable price seems a worthwhile trade-off for the exemption clause. For this purpose, transparency is a core element in the contract discipline.

In contrast to the issue of transparency, that is essential despite the degree of substantive fairness, the questions of choice and bargaining power do depend on this element: in these two cases, law can intervene only when the term is in some way substantively dangerous to the consumer.

Focusing on the issue of lack of choice, as pointed out by Willet, "in a free-market economy it is surely unrealistic to expect there to be choices to be on offer for all terms"[203]. Traders may use same terms either because there is little competitive pressure to these terms (this is often the case for non-core terms contract) or because they have an interest in using them, reflecting the idea of a fair balance between the interests of the two parties. Focusing on the question of bargaining power, in a contractual transaction, as already pointed out, consumers will usually be in an unfavourable position, since they are usually not important enough to the trader to give him any leverage; additionally, they will usually lack of skill, expertise and resources with respect to the trader. "If lack of choice and inequality of bargaining power is usual, it becomes unrealistic to use them as a sole measure of fairness. It is necessary to juxtapose them to another factor, i.e., that the terms are in some way detrimental to the consumer in substance"[204].

To provide an example, the consumer is offered services by trader X, subject to a term excluding all liability for defective performance, but, at the same time, the trader X, or another trader Y, offers the same services while proving more liability, on condition that the consumer pays a higher basic price.

Provided that transparency of terms is respected, then there is the choice issue itself: the consumer can choose whether to take the risk of agreeing to the no liability package or pay a higher price for more liability.

[202]Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 56.
[203]*Id*, 62.
[204]*Id,* 63.

To sum up, with respect to procedural fairness, only transparency represents a core requirement in contract discipline: "the ability to give informed consent must be more fundamental than the existence as to what to agree to or the opportunity to bargain for an improvement"[205]. If a term jeopardises the consumer's substantive interest and it is not reasonably transparent, then this should be enough for a finding of unfairness.

1.4.2 Fairness in consumer protection

Analysing the principle of fairness with reference to consumer protection, it is relevant to take into-account the UTD and the UCPD. As outlined in section 1.2.2, the Preamble of the UTD is a useful starting point in the analysis of the Directive; particularly, it seems to outline that the Directive is aimed at regulating both procedural unfairness and unfairness in substance:

> "whereas in accordance with the principle laid down under the heading 'Protection of the economic interests of the consumers', as stated in those programmes: 'acquirers of goods and services should be protected against the abuse of power by the seller or supplier, in particular against one-sided standard contracts and the unfair exclusion of essential rights in contracts'"[206]

According to Willet, the outlined abuse of power seems to refer to procedural unfairness: "the trader might be said to be abusing power if he obtains the agreement of the consumer when there is a lack of transparency, lack of choice or weak consumer bargaining strength"[207]. On the other side, the "*one-sided standard contracts*" seem to refer to substantial fairness: attention is given to terms that unduly favour the interest of the trader over the consumer.

The UTD was adopted under Article 100 of the Treaty of Rome[208] (now Article 95), with the aim to approximate national provisions in the field of consumer protection, with the attempt to reach an effective market integration; accordingly, Article 95, promotes "the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market". The idea was to build a "level-playing field", namely a set of rules which are common to all Member States, in order to promote the cross-national trade.

Transparency seems to be an important tool to get both targets, namely consumer protection and cross-national trade. Particularly, information disclosure and education (as a result of transparency) trigger a greater consumer confidence, in buying goods and services in Member States other than their own. This is translated into a more effective internal trade and into a stronger market integration. Improved competition, in turn,

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[205] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 64.
[206] 9th "whereas" of the Preamble to the UTD.
[207] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 85.
[208] Article 100 Treaty of Rome: The Council shall. acting unanimously on a proposal from the Commission, issue directives for the approximation of such provisions laid down by law, regulation or administrative action in Member States as directly affect the establishment or functioning of the common market. The Assembly [European Parliament] and the Economic and Social Committee shall be consulted in the case of directives whose implementation would, in one or more Member States, involve the amendment of legislation.

forces traders to make some terms fairer in substance, that leads to a greater transparency. This virtuous cycle can be represented as follows:

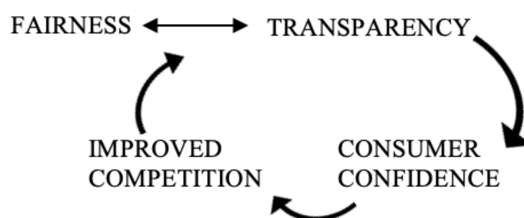

Figure 4

Under this perspective, all the EU secondary law tools, that aim to promote consumer protection, particularly informed decision, and informed consent, are likely to feed this virtuous cycle.

Another important element that emerges from the UTD is the *test of unfairness*, outlined in Article 3 of the Directive, according to which "a contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer"[209]. In order to understand the application of the test of unfairness, it is relevant to mention at least two cases before the ECJ: the *Oceano* case and the *Freiburger* case.

The *Oceano* case[210] had to deal with a contract for the purchase by instalments of an encyclopaedia for personal use. The contract in question contained a term conferring jurisdiction on the courts in Barcelona; the Tribunal of Barcelona, doubting whether the protection provided for by the Directive was such that a national court had the power to declare *ex officio* that a term is unfair, referred to the Court of Justice for a preliminary ruling, with the following question: "Is the scope of the consumer protection provided by Council Directive 93/13/EEC [..] such that the national court may determine of its own motion whether a term of a contract is unfair when making its preliminary assessment as to whether a claim should be allowed to proceed before the ordinary courts?"[211].

The ECJ answered positively to the question, stating that "the protection provided for consumer by the Directive entails national court being able to determine of its own motion whether a term of a contract before it is unfair when making its preliminary assessment as to whether a claim should be allowed to proceed before the national courts"[212].

However, the ECJ also stated that "where a term of the kind at issue in the main proceedings has been included in a contract concluded between a consumer and a seller or supplier within the meaning of the Directive without being individually negotiated, it satisfies all the criteria enabling it to be classed as unfair

[209] Article 3 UTD. *See supra note* 65.
[210] Judgment of 27.6.2000 - Joined Cases C-240/98 to C-244/98 (*Oceano case*), available at [https://curia.europa.eu/juris/showPdf.jsf?text=&docid=45388&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=15131479].
[211] Paragraph 19 Oceano case.
[212] Paragraph 29 Oceano case.

for the purposes of the Directive"[213]; hence the final decision concerning the unfairness of the term was effectively taken by the ECJ.

In the *Freiburger case*[214] the ECJ adopted a different approach. In the proceeding, the Freiburger Kommunalbauten, a municipal construction company, sold to Mr and Mrs Hofstetter a parking space; under clause 5 of the contract, the whole of the price was due upon delivery of a security by the contractor. In the event of late payment, the purchaser was liable to pay default interest. Mr and Mrs Hofstetter refused to make the payment, claiming that the provision requirement payment of the whole of the price was contrary to Paragraph 9 of the AGBG (German Law) and the construction company claimed the default interest for late payment. The Bundesgerichtshof (i.e., the Federal Court of Justice) was inclined to the view that clause 5 of the disputed contract was not unfair under the German law; however, since the disputed contract fell within the scope of Article 3 of the Directive 93/13/EC, it decided to refer to the ECJ for a correct interpretation. The construction company submitted to the Court that the term was not unfair:

> "The disadvantages to which a consumer might be exposed as a result of the obligation to pay the price before performance of the contract are counterbalanced by the bank guarantee provided by the builder. However, as it reduces the need for the builder to finance the building work through use of borrowings, the price of that work may be reduced as a result. Furthermore, the bank guarantee provided by the builder limits the disadvantages faced by purchasers, as it guarantees repayment to them of sums paid in cases of both non-performance and defective performance of the contract, even if the builder were to become insolvent"[215].

First off, the Court following the point already made in Commission v. Sweden[216], stated that a term is not automatically unfair on the basis that it is on list presented in the Annex. Particularly, the Annex presents an indicative and non-exhaustive list of unfair terms that are not necessarily always unfair: the criterion for assessing unfairness is the general test in Article 3, namely the significant *imbalance/good faith test*.

Secondly, with refence to the question whether a particular term in a contract is or not unfair, "Article 4 of the Directive provides that the answer should be reached taking into account the nature of the goods or services for which the contract was concluded and by referring, at the time of conclusion of the contract, to all the circumstances attending the conclusion of the contract."[217]Accordingly, it was necessary to consider also the consequences of the term under the law applicable to the contract and this required that consideration should have been given to the national law. Hence, the final decision is left to the national court, as in the case of application of the average consumer test.

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[213] Paragraph 21 Oceano case.
[214] Judgment of 1.4.2004 - Case C-237/02 (*Freiburger case*), available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62002CJ0237&from=EN].
[215] Paragraph 16 Freiburger case.
[216] In Commission v. Sweden, the ECJ had to decide whether Sweden had failed to properly implement the Directive by failing to include the indicative list of terms that may be regarded as unfair in the main body of the legislation implementing the UTD. It was found that the failure to include the list in the main body of law did not mean that the law failed to convey the full extent of consumer rights under the UTD, because the list is merely indicative and non-exhaustive.
[217] Paragraph 21 Freiburger case.

Attention should be given also to the UCPD. Here the concept of fairness is bounded to the promotion of the EU internal market and trade: "the development of fair commercial practices within the area without internal frontiers is vital for the promotion of the development of cross border activities"[218]; this goes to feed the outlined scheme above: fair commercial practices trigger an improved competition within the internal market.

1.4.3 Fairness in data protection and in the Ecommerce Directive

The notion of fairness has always been present in the data protection framework, since the very first international documents, among which the Council of Europe Resolutions (1973 and 1974) [219], as well as to the 1980 OECD guidelines on data processing[220]. In the Directive 95/46/EC (Data Protection Directive) too, there is a reference to fairness in Article 6, according to which data shall be processed fairly and lawfully. Fairness has always been presented as being strictly bound to the principles of lawfulness and transparency. The GDPR explicitly takes into-account these links in Article 5, according to which personal data shall be: (a) processed lawfully, fairly and in a transparent manner in relation to the data subject ('lawfulness, fairness and transparency').

In order to understand the principle of fairness in data processing, it is firstly necessary to understand the link between fairness and transparency, as well as the link between fairness and lawfulness.

Starting from the principle of transparency, as already outlined, this mere principle reflects information disclosure duties from the side of the trader/supplier or data controller. Accordingly, in order to attain a transparent data processing, data controllers need to disclose all the relevant information to the data subjects, in accordance with Article 13 and 14 of the GDPR.

What makes data processing not only transparent but also *fairly transparent* is outlined in recital 60 of the GDPR[221]: a fairly transparent data processing require that the data subject has an actual knowledge of the data processing concerning him/her and of its main characteristics; with fair transparency, the substantial interests at stake in a specific data processing are taken into-account: "what matters is not that data controllers' duties are (formally) respected, but that the data subjects (in practical circumstances) is concretely "in a position to learn of the existence" and of the details of data processing concerning him or her"[222]. Fairness and transparency show a link also in Article 40 on Codes of Conduct[223]; GDPR codes are voluntary accountability

[218] 2nd "whereas" Preamble to UCPD.
[219] Available at [https://rm.coe.int/1680502830] and [https://rm.coe.int/16804d1c51].
[220] Available at [https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0188]
[221] Recital 60 GDPR: "The principles of fair and transparent processing require that the data subject be informed of the existence of the processing operation and its purposes. The controller should provide the data subject with any further information necessary to ensure fair and transparent processing taking into-account the specific circumstances and context in which the personal data are processed […]".
[222] Malgieri, G. (2020, January). The concept of fairness in the GDPR: a linguistic and contextual interpretation. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* (pp. 154-166).
[223] Article 40 GDPR - Codes of conduct: 1. The Member States, the supervisory authorities, the Board and the Commission shall encourage the drawing up of codes of conduct intended to contribute to the proper application of this Regulation, taking account of the specific features of the various processing sectors and the specific needs of micro, small and medium-sized enterprises. 2. Associations

tools which set out specific data protection rules for categories of controllers and processors and may notably cover topics such as fair and transparent processing. Particularly, in Article 40 allows associations and other bodies representing categories of controllers or processors to prepare codes of conduct with regard to fair and transparent processing. In conclusion, recital 71[224] shows an additional connection between the two principles; particularly the data controller, in order to ensure fair and transparent processing, in respect to the data subject, should use appropriate procedure for the profiling, implement technical and organisational measure appropriate to ensure that risks of errors are minimized and secure personal data in a manner that takes into-account the interests and the rights of the data subject and prevents discriminatory effects. What emerges from recital 71 is that fairness is not merely linked to substantial transparency as stated in Article 13 and 14:

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and other bodies representing categories of controllers or processors may prepare codes of conduct, or amend or extend such codes, for the purpose of specifying the application of this Regulation, such as with regard to: (a) fair and transparent processing; (b) the legitimate interests pursued by controllers in specific contexts; (c) the collection of personal data; (d) the pseudonymisation of personal data; (e) the information provided to the public and to data subjects; (f) the exercise of the rights of data subjects; (g) the information provided to, and the protection of, children, and the manner in which the consent of the holders of parental responsibility over children is to be obtained; (h) the measures and procedures referred to in Articles 24 and 25 and the measures to ensure security of processing referred to in Article 32; (i) the notification of personal data breaches to supervisory authorities and the communication of such personal data breaches to data subjects; (j) the transfer of personal data to third countries or international organisations; or (k) out-of-court proceedings and other dispute resolution procedures for resolving disputes between controllers and data subjects with regard to processing, without prejudice to the rights of data subjects pursuant to Articles 77 and 79. 3. In addition to adherence by controllers or processors subject to this Regulation, codes of conduct approved pursuant to paragraph 5 of this Article and having general validity pursuant to paragraph 9 of this Article may also be adhered to by controllers or processors that are not subject to this Regulation pursuant to Article 3 in order to provide appropriate safeguards within the framework of personal data transfers to third countries or international organisations under the terms referred to in point (e) of Article 46(2). Such controllers or processors shall make binding and enforceable commitments, via contractual or other legally binding instruments, to apply those appropriate safeguards including with regard to the rights of data subjects. 4. A code of conduct referred to in paragraph 2 of this Article shall contain mechanisms which enable the body referred to in Article 41(1) to carry out the mandatory monitoring of compliance with its provisions by the controllers or processors which undertake to apply it, without prejudice to the tasks and powers of supervisory authorities competent pursuant to Article 55 or 56. 5. Associations and other bodies referred to in paragraph 2 of this Article which intend to prepare a code of conduct or to amend or extend an existing code shall submit the draft code, amendment or extension to the supervisory authority which is competent pursuant to Article 55. The supervisory authority shall provide an opinion on whether the draft code, amendment or extension complies with this Regulation and shall approve that draft code, amendment or extension if it finds that it provides sufficient appropriate safeguards. 6. Where the draft code, or amendment or extension is approved in accordance with paragraph 5, and where the code of conduct concerned does not relate to processing activities in several Member States, the supervisory authority shall register and publish the code. 7. Where a draft code of conduct relates to processing activities in several Member States, the supervisory authority which is competent pursuant to Article 55 shall, before approving the draft code, amendment or extension, submit it in the procedure referred to in Article 63 to the Board which shall provide an opinion on whether the draft code, amendment or extension complies with this Regulation or, in the situation referred to in paragraph 3 of this Article, provides appropriate safeguards. 8. Where the opinion referred to in paragraph 7 confirms that the draft code, amendment or extension complies with this Regulation, or, in the situation referred to in paragraph 3, provides appropriate safeguards, the Board shall submit its opinion to the Commission. 9. The Commission may, by way of implementing acts, decide that the approved code of conduct, amendment or extension submitted to it pursuant to paragraph 8 of this Article have general validity within the Union. Those implementing acts shall be adopted in accordance with the examination procedure set out in Article 93(2). 10. The Commission shall ensure appropriate publicity for the approved codes which have been decided as having general validity in accordance with paragraph 9. 11. The Board shall collate all approved codes of conduct, amendments and extensions in a register and shall make them publicly available by way of appropriate means.

[224] Recital 71 GDPR: […] In order to ensure fair and transparent processing in respect of the data subject, taking into account the specific circumstances and context in which the personal data are processed, the controller should use appropriate mathematical or statistical procedures for the profiling, implement technical and organisational measures appropriate to ensure, in particular, that factors which result in inaccuracies in personal data are corrected and the risk of errors is minimised, secure personal data in a manner that takes account of the potential risks involved for the interests and rights of the data subject and that prevents, inter alia, discriminatory effects on natural persons on the basis of racial or ethnic origin, political opinion, religion or beliefs, trade union membership, genetic or health status or sexual orientation, or that result in measures having such an effect. Automated decision-making and profiling based on special categories of personal data should be allowed only under specific conditions.

"fairness should be also aimed at preventing significant effects of the algorithm-driven environment on individuals (e.g., discriminatory biases)"[225].

On the other side, the link between fairness and lawfulness is outlined in Article 6 of the GDPR: Member States may maintain or introduce specific provisions to adapt the application of the rules of the GDPR by determine more specific requirements for the processing and other measures to ensure a lawful and fair data processing, including for other specific processing situations, outlined in Chapter IX of GDPR (Articles 85-91), that refers to "particular cases of conflicting interests which the protection of personal data could affect […] or sensitive areas in which national legislations could be very different"[226]. Member States, when introducing measure to ensure lawful processing, should take as an example the balancing provisions outlined in Chapter IX; again, in the case of lawfulness, the reference to fairness should be understood as fair substantial balancing between conflicting interests[227].

From a more general point of view, in the GDPR the principle of fairness seems to have two main broad interpretations: *fair balancing* and *procedural fairness*. What clearly emerges from the provisions of the GDPR is an attempt to balance the interests of the different parties through the implementation of specific procedures that can ensure a certain level of transparency and lawfulness in the data processing. The GDPR does not prescribe in detail the necessary fairness to be implemented in the data processing: the data controller, looking at the specific circumstances and the context in which the personal data are processed, adopt *her* own level of fairness in order to ensure a fairly transparent and fairly lawful processing. "The difference between "mere" transparency or lawfulness and "fair" transparency or lawfulness is the adoption of additional safeguards that can effectively rebalance the unfair imbalance between the data controller and the subject in specific circumstances"[228]. It follows than that procedural fairness should be considered more an *obligation of results* rather than an obligation of means.

The ECJ has affirmed this idea of fair balancing between the different interests, taking into-account the circumstances, in *Google Spain* case (2014)[229] stating that "a fair balance should be sought in particular between that interest and the data subject's fundamental rights under Articles 7 and 8 of the Charter"[230]; in other words, a fair balance requires specific consideration of the substantial circumstances and interests at issue. However,

[225] Malgieri, G. (2020, January). The concept of fairness in the GDPR: a linguistic and contextual interpretation. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* (pp. 154-166).
[226]*Ibidem*.
[227]*Ibidem*.
[228]*Ibidem*.
[229] Google Spain case deals with the right to be forgotten set out in Article 17 of the GDPR. The case deals with a case of business failure. Mario Costeja González failed with his industry; the news was published on the web. After many years for González was difficult to restart a new activity and he thought that after many years there was no need to be connected with that news. He referred to the Spanish Authority for the protection of the personal data and he asked to be dissociated from the news. The Spanish Authority asked Google to remove those data, Google refused since the freedom of expression of the website would be compromised. The ECJ, for the first time, with this judgment, has recognised the right to be forgotten on the basis of what is contained in Directive 95/46/EC on the processing of personal data. Judgment of 13.5.2014 – Case C-131/12 (*Google Spain case*), available at [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0131&from=EN].
[230] Paragraph 81 Google Spain case.

"whilst it is true that the data subject's rights protected by those articles also override, as a general rule, that interest of internet users, that balance may however depend, in specific cases, on the nature of the information in question and its sensitivity for the data subject's private life and on the interest of the public in having that information, an interest which may vary, in particular, according to the role played by the data subject in public life"[231].

Nevertheless, the ECJ has never given a definition of the notion of fairness in the GDPR; hence a proper test is totally missing.

To conclude, Clifford and Ausloos affirm that "fairness gives a level of protection to the inherent asymmetric data subject-controller relationships and hence, the potential for negative consequence for data subjects in stemming from personal data processing even in the absence of a controller intent to deceive"[232].

Finally, it is relevant to acknowledge the Ecommerce Directive[233] seeking to contribute to the proper functioning of the internal market, particularly, ending unjustified cross-border barriers, facilitating cheaper cross-border parcel deliveries, protecting online customer rights, and promoting cross border access to online content, that represent the cornerstones of Digital Single Market Strategy[234]. The Directive focuses on the regulation of information society services, defined Directive 98/48/EC as "any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services". [235]. The Directive deals with five distinct issues: the "country of origin" rule[236]; the information for recipients of

[231] Paragraph 81 Google Spain case.
[232] Malgieri, G. (2020, January). The concept of fairness in the GDPR: a linguistic and contextual interpretation. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* (pp. 154-166) cited from Clifford, D., & Ausloos, J. (2018). Data protection and the role of fairness. *Yearbook of European Law*, *37*, 130-187.
[233] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0031&from=EN].
[234] European Commission, New EU Rules on e-commerce, ec.europa.eu, available at [https://ec.europa.eu/digital-single-market/en/new-eu-rules-e-commerce].
[235] Article 1 comma 2 Directive 98/48/EC: Article 1 is amended as follows: (a) the following new point shall be inserted: "service", any Information Society service, that is to say, any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services. For the purposes of this definition: "at a distance" means that the service is provided without the parties being simultaneously present, "by electronic means" means that the service is sent initially and received at its destination by means of electronic equipment for the processing (including digital compression) and storage of data, and entirely transmitted, conveyed and received by wire, by radio, by optical means or by other electromagnetic means, "at the individual request of a recipient of services" means that the service is provided through the transmission of data on individual request. An indicative list of services not covered by this definition is set out in Annex V. This Directive shall not apply to: radio broadcasting services, television broadcasting services covered by point (a) of Article 1 of Directive 89/552/EEC.
[236] Information society services should be supervised at the source of the activity, in order to ensure an effective protection of public interest objectives; to that end, it is necessary to ensure that the competent authority provides such protection not only for the citizens of its own country but for all Community citizens; in order to improve mutual trust between Member States, it is essential to state clearly this responsibility on the part of the Member State where the services originate; moreover, in order to effectively guarantee freedom to provide services and legal certainty for suppliers and recipients of services, such information society services should in principle be subject to the law of the Member State in which the service provider is established.

the services (Arts 5[237],6[238], 10[239]); the requirements for commercial communications (Articles 6,7[240],8[241]); the requirements for electronic contracts (Articles 9[242],10,11[243]) and, finally, the limited the liability of intermediary service providers (Arts 12[244],13[245],14[246]).

[237] Article 5 Ecommerce Directive - General information to be provided: 1. In addition to other information requirements established by Community law, Member States shall ensure that the service provider shall render easily, directly and permanently accessible to the recipients of the service and competent authorities, at least the following information: (a) the name of the service provider; (b) the geographic address at which the service provider is established; (c) the details of the service provider, including his electronic mail address, which allow him to be contacted rapidly and communicated with in a direct and effective manner; (d) where the service provider is registered in a trade or similar public register, the trade register in which the service provider is entered and his registration number, or equivalent means of identification in that register; (e) where the activity is subject to an authorisation scheme, the particulars of the relevant supervisory authority; (f) as concerns the regulated professions: any professional body or similar institution with which the service provider is registered, the professional title and the Member State where it has been granted, a reference to the applicable professional rules in the Member State of establishment and the means to access them; (g) where the service provider undertakes an activity that is subject to VAT, the identification number referred to in Article 22(1) of the sixth Council Directive 77/388/EEC of 17 May 1977 on the harmonisation of the laws of the Member States relating to turnover taxes — Common system of value added tax: uniform basis of assessment (2). 2. In addition to other information requirements established by Community law, Member States shall at least ensure that, where information society services refer to prices, these are to be indicated clearly and unambiguously and, in particular, must indicate whether they are inclusive of tax and delivery costs.

[238] Article 6 Ecommerce Directive - Information to be provided: In addition to other information requirements established by Community law, Member States shall ensure that commercial communications which are part of, or constitute, an information society service comply at least with the following conditions: (a) the commercial communication shall be clearly identifiable as such; (b) the natural or legal person on whose behalf the commercial communication is made shall be clearly identifiable; (c) promotional offers, such as discounts, premiums and gifts, where permitted in the Member State where the service provider is established, shall be clearly identifiable as such, and the conditions which are to be met to qualify for them shall be easily accessible and be presented clearly and unambiguously; (d) promotional competitions or games, where permitted in the Member State where the service provider is established, shall be clearly identifiable as such, and the conditions for participation shall be easily accessible and be presented clearly and unambiguously.

[239]Article 10 Ecommerce Directive - Information to be provided: 1. In addition to other information requirements established by Community law, Member States shall ensure, except when otherwise agreed by parties who are not consumers, that at least the following information is given by the service provider clearly, comprehensibly and unambiguously and prior to the order being placed by the recipient of the service: (a) the different technical steps to follow to conclude the contract; (b) whether or not the concluded contract will be filed by the service provider and whether it will be accessible; (c) the technical means for identifying and correcting input errors prior to the placing of the order; (d) the languages offered for the conclusion of the contract. 2. Member States shall ensure that, except when otherwise agreed by parties who are not consumers, the service provider indicates any relevant codes of conduct to which he subscribes and information on how those codes can be consulted electronically. 3. Contract terms and general conditions provided to the recipient must be made available in a way that allows him to store and reproduce them. 4. Paragraphs 1 and 2 shall not apply to contracts concluded exclusively by exchange of electronic mail or by equivalent individual communications.

[240] Article 7 Ecommerce Directive - Unsolicited commercial communication : 1. In addition to other requirements established by Community law, Member States which permit unsolicited commercial communication by electronic mail shall ensure that such commercial communication by a service provider established in their territory shall be identifiable clearly and unambiguously as such as soon as it is received by the recipient. 2. Without prejudice to Directive 97/7/EC and Directive 97/66/EC, Member States shall take measures to ensure that service providers undertaking unsolicited commercial communications by electronic mail consult regularly and respect the opt-out registers in which natural persons not wishing to receive such commercial communications can register themselves.

[241] Article 8 Ecommerce Directive - Regulated professions: 1. communications which are part of, or constitute, an information society service provided by a member of a regulated profession is permitted subject to compliance with the professional rules regarding, in particular, the independence, dignity and honour of the profession, professional secrecy and fairness towards clients and other members of the profession. 2. Without prejudice to the autonomy of professional bodies and associations, Member States and the Commission shall encourage professional associations and bodies to establish codes of conduct at Community level in order to determine the types of information that can be given for the purposes of commercial communication in conformity with the rules referred to in paragraph 1. 3. When drawing up proposals for Community initiatives which may become necessary to ensure the proper functioning of the Internal Market with regard to the information referred to in paragraph 2, the Commission shall take due account of codes of conduct applicable at Community level and shall act in close cooperation with the relevant professional associations and bodies. 4. This Directive shall apply in addition to Community Directives concerning access to, and the exercise of, activities of the regulated professions.

[242] Article 9 Ecommerce Directive - Treatment of contracts: Member States shall ensure that the use of commercial 1. contracts to be concluded by electronic means. Member States shall in particular ensure that the legal requirements applicable to the contractual process neither create obstacles for the use of electronic contracts nor result in such contracts being deprived of legal effectiveness and validity on account of their having been made by electronic means. 2. Member States may lay down that paragraph 1 shall not apply to all or certain contracts falling into one of the following categories: (a) contracts that create or transfer rights in real estate, except for rental rights; (b) contracts requiring by law the involvement of courts, public authorities or professions exercising public authority; (c) contracts of suretyship granted and on collateral securities furnished by persons acting for purposes outside their trade, business or profession; (d) contracts governed by family law or by the law of succession. 3. Member States shall indicate to the Commission the categories referred to in paragraph2 to which they do not apply paragraph 1. Member States shall submit to the Commission every five

First off, the country-of-origin rule means that service providers are only subject to the rules of their country of origin or home country (i.e., the country where they are established).

Secondly, the Directive addresses the principles of transparency, outlying information that need to be provided to the service recipient, and of fairness, mentioned at recital 29[247] and in Article 8 of the Directive[248].

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years a report on the application of paragraph 2 explaining the reasons why they consider it necessary to maintain the category referred to in paragraph 2(b) to which they do not apply paragraph 1.

[243] Article 11 Ecommerce Directive - Placing of the order: 1. agreed by parties who are not consumers, that in cases where the recipient of the service places his order through technological means, the following principles apply: the service provider has to acknowledge the receipt of the recipient's order without undue delay and by electronic means, the order and the acknowledgement of receipt are deemed to be received when the parties to whom they are addressed are able to access them. 2. Member States shall ensure that, except when otherwise agreed by parties who are not consumers, the service provider makes available to the recipient of the service appropriate, effective and accessible technical means allowing him to identify and correct input errors, prior to the placing of the order. 3. Paragraph 1, first indent, and paragraph 2 shall not apply to contracts concluded exclusively by exchange of electronic mail or by equivalent individual communications.

[244] Article 12 Ecommerce Directive - 'Mere conduit': Member States shall ensure, except when otherwise: 1. consists of the transmission in a communication network of information provided by a recipient of the service, or the provision of access to a communication network, Member States shall ensure that the service provider is not liable for the information transmitted, on condition that the provider: (a) does not initiate the transmission;
(b) does not select the receiver of the transmission; and (c) does not select or modify the information contained in the transmission. 2. The acts of transmission and of provision of access referred to in paragraph 1 include the automatic, intermediate and transient storage of the information transmitted in so far as this takes place for the sole purpose of carrying out the transmission in the communication network, and provided that the information is not stored for any period longer than is reasonably necessary for the transmission. 3. This Article shall not affect the possibility for a court or administrative authority, in accordance with Member States' legal systems, of requiring the service provider to terminate or prevent an infringement.

[245] Article 13 Ecommerce Directive - 'Caching': 1. Where an information society service is provided that consists of the transmission in a communication network of information provided by a recipient of the service, Member States shall ensure that the service provider is not liable for the automatic, intermediate and temporary storage of that information, performed for the sole purpose of making more efficient the information's onward transmission to other recipients of the service upon their request, on condition that: (a) the provider does not modify the information; (b) the provider complies with conditions on access to the information; (c) the provider complies with rules regarding the updating of the information, specified in a manner widely recognised and used by industry; (d) the provider does not interfere with the lawful use of technology, widely recognised and used by industry, to obtain data on the use of the information; and (e) the provider acts expeditiously to remove or to disable access to the information it has stored upon obtaining actual knowledge of the fact that the information at the initial source of the transmission has been removed from the network, or access to it has been disabled, or that a court or an administrative authority has ordered such removal or disablement. 2. This Article shall not affect the possibility for a court or administrative authority, in accordance with Member States' legal systems, of requiring the service provider to terminate or prevent an infringement.

[246] Article 14 Ecommerce Directive – Hosting: 1. Where an information society service is provided that consists of the storage of information provided by a recipient of the service, Member States shall ensure that the service provider is not liable for the information stored at the request of a recipient of the service, on condition that: (a) the provider does not have actual knowledge of illegal activity or information and, as regards claims for damages, is not aware of facts or circumstances from which the illegal activity or information is apparent; or (b) the provider, upon obtaining such knowledge or aware- ness, acts expeditiously to remove or to disable access to the information. 2. Paragraph 1 shall not apply when the recipient of the service is acting under the authority or the control of the provider. 3. This Article shall not affect the possibility for a court or administrative authority, in accordance with Member States' legal systems, of requiring the service provider to terminate or prevent an infringement, nor does it affect the possibility for Member States of establishing procedures governing the removal or disabling of access to information.

[247] Commercial communications are essential for the financing of information society services and for developing a wide variety of new, charge-free services; in the interests of consumer protection and *fair trading*, commercial communications, including discounts, promotional offers and promotional competitions or games, must meet a number of transparency requirements; these requirements are without prejudice to Directive 97/7/EC; this Directive should not affect existing Directives on commercial communications, in particular Directive 98/43/EC.

[248] Article 8 Ecommerce Directive: 1. Member States shall ensure that the use of commercial communications which are part of, or constitute, an information society service provided by a member of a regulated profession is permitted subject to compliance with the professional rules regarding, in particular, the independence, dignity and honour of the profession, professional secrecy and *fairness towards clients and other members of the profession*. 2. Without prejudice to the autonomy of professional bodies and associations, Member States and the Commission shall encourage professional associations and bodies to estab- lish codes of conduct at Community level in order to determine the types of information that can be given for the purposes of commercial communication in conformity with the rules referred to in paragraph 1 3. When drawing up proposals for Community initiatives which may become necessary to ensure the proper functioning of the Internal Market with regard to the information referred to in paragraph 2, the Commission shall take due account of codes of conduct applicable at Community level and shall act in close cooperation with the relevant professional associations and bodies. 4. This Directive shall apply in addition to Community Directives concerning access to, and the exercise of, activities of the regulated professions.

Here, the reference is made to *fair* trading and to *fairness* towards clients and other members of the profession, reflecting from one side the application of the principle of fairness in the context of trade, hence competition law (section 1.4.4) and on the other side the application of the same principle in the context of consumer protection.

1.4.4 Fairness in competition law

Competition law within the European legal framework derives from Articles 101-109 TFEU that form the chapter on rules on competition. Articles 101[249] and 102[250] both contain reference to fairness. With reference to Article 101, one of the requirements to justify prohibited practices listed in paragraph 1, is to allow consumers a *fair share* of the resulting benefit.

Article 102 identifies in the prohibited abuses, by one or more undertakings of a dominant position within the internal market or in a substantial part of it, all the abuses that directly or indirectly impose unfair purchase or selling prices or other *unfair trading conditions*.

Despite these provisions of competition law mentions the concept of fairness, "what constitutes unfair in this context remains unclear as the legality of practices under competition law is evaluated on the basis of their anticompetitive nature or effects in the specific circumstances of the case"[251].

The concept of fairness remains somewhat generic, and its role is less explicit than in regimes of data protection and consumer protection law. Rather than a substantive benchmark to evaluate anticompetitive behaviours and abuses, "fairness can be regarded as an inherent objective or outcome of competition enforcement. By intervening against anticompetitive practices, EU competition law protects the competitive

[249] Article 101 (ex-Article 81 TEC) TFEU : 1. The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market, and in particular those which: (a) directly or indirectly fix purchase or selling prices or any other trading conditions; (b) limit or control production, markets, technical development, or investment; (c) share markets or sources of supply; (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts. 2. Any agreements or decisions prohibited pursuant to this Article shall be automatically void. 3. The provisions of paragraph 1 may, however, be declared inapplicable in the case of: any agreement or category of agreements between undertakings, any decision or category of decisions by associations of undertakings, — any concerted practice or category of concerted practices, which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not: (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives; (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

[250] Article 102 (ex-Article 82 TEC) TFEU: Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States. Such abuse may, in particular, consist in: (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b) limiting production, markets or technical development to the prejudice of consumers; (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

[251] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 203.

process in the internal market to the benefit of consumers, competitors and the economy as a whole"[252]. The competition enforcement that results contributes to the creation of a fairer society.

1.5 Preliminary remarks and possible future scenarios

In this first chapter, there has been an attempt to reconstruct legal tools from consumer protection regime, data protection field and competition law; it is possible to identify in the principle of fairness a common thread between them.

In light of increasing commercial practices that exploit information and power asymmetries between consumers and professionals within the online environment, a holistic approach based on the principle of fairness seems a suitable solution that would ensure a fair balancing of the interest in place, with the ultimate goal to ensure consumer welfare and the welfare of the economy as a whole.

Currently, European Institutions are working on proposals for regulation capable to correctly address innovation and the exponential growth of the digital market.

From one side, they are trying to correctly address products and services from Artificial Intelligence (i.e., Proposal for a Regulation laying down harmonised rules on artificial intelligence[253]).

From the other, they are trying to implement regulations on contestable and fair markets in the digital sector (i.e., Proposal for a regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act[254])) and on the correct placing and functioning of digital services (i.e., Proposal for a Regulation of the European Parliament and of the Council on a single market for Digital Services (Digital Service Act[255]),amending the e-commerce Directive).

In the proposals for regulation of the digital market and the digital services, there is explicit recall to the *principle of fairness*; from one side, the Digital Markets Act aims at correctly addressing and limiting unfair practices in the digital sector, from the other, the Digital Service Act aims at promoting more fairness, transparency, and accountability for digital services' content moderation processes, ensuring that fundamental rights are respected, and guaranteeing independent recourse to judicial redress. On the other hand, in case of Artificial Intelligence Act, despite the absence of reference to that principle, the idea is still to ensure a balance between AI systems and individual rights.

All these regulations will be explored in chapter 3 of this analysis.

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[252] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 205.

[253] 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. Retrieved the 24th of May from [https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence].

[254] Proposal for a regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act). Retrieved the 24th of May from [https://eur-lex.europa.eu/legal-content/en/TXT/?uri=COM%3A2020%3A842%3AFIN].

[255] Proposal for a regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act). Retrieved the 31st of May from [https://ec.europa.eu/digital-single-market/en/news/proposal-regulation-european-parliament-and-council-single-market-digital-services-digital].

So far, current legal tools together with the ones in progress, seem to be suitable to correctly address online commercial practices exploiting information and power asymmetries (in this case, Dark Patterns), especially considering the possibility to bring them together thanks to the promotion of the principle of fairness.

However, in chapter 2, there will be an analysis of possible pitfalls and shortcomings in the depicted *fairness-oriented holistic* legal framework, in view of behavioural studies and consumer neuroscience insights.

CHAPTER 2

Possible pitfalls and shortcomings in a fairness-oriented holistic approach, in light of behavioural studies

2.1 Introduction to Behavioural Economics: the limits of the Neoclassical Theory of Consumption

Historical roots of behavioural economics can be traced back to 50s of 20th century, when cognitive psychology emerged with relevant insights concerning individuals and their behaviour[256].Research done in this field started to prove the fallacies of the Neoclassical model, as well as of its underpinning theories, among which the EU theorem. Despite these theories proved to have great internal validity and solidity, empirical evidence began to show their lack of external validity, in other words, to illustrate a divergence between what these models postulate and the real human behaviour. Neoclassical theories, and in particular the EU theorem, belong to the so-called normative models of decision-making, that abstract individual behaviours in order to discover coherent and solid theoretical patterns on the way in which human-beings should behave.

Behavioural economists, starting from the second half of the 20th century, began to prove that despite these models inspire to real human behaviours, they tend to detach from the reality since they are based on the abstraction and the idealization of individual behaviours. Hence, these authors have tried to build, over time, new models capable to better reflect those behaviours, specifically, descriptive and prescriptive models of decision-making.

Descriptive decision-making models focus on what actually will occur in a situation, instead of what should happen: they take-into consideration outside factors that influence an actor's decisions toward less optimal, less rational ends. The central point, hence, is the empirical validity of the model, that basically addresses how and why people actually make decisions.

Prescriptive models, on the other hand, exploit some of the logical consequences of normative theories and the empirical findings of the descriptive studies, and focus on pragmatism, in other words on the capacity to be translated into an effective tool for decision-making analysis. These models were introduced for the first time in 1988 by Tversky et al[257], to address the following question: "how can real people – as opposed to imaginery, idealized, super-rational people without psyches – make better choices in a way that does not do violence to their deep cognitive concerns?"[258]. The authors contrasted the usual dichotomy between the

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[256] Angner, E., & Loewenstein, G. (2006). *BEHAVIORAL ECONOMICS To appear in Elsevier's Handbook of the Philosophy of Science, Vol. 5* (Unpublished master's thesis). University of Alabama at Birmingham - Carnegie Mellon University.
[257] Bell, D. E., Raiffa, H., & Tversky, A. (Eds.). (1988). *Decision making: Descriptive, normative, and prescriptive interactions*. Cambridge university Press.
[258] *Id,* 9.

normative and descriptive sides (the "ought" and the "is") of decision making, by adding a third component: the prescriptive side[259].

In the field of new models of decision-making, it is relevant to acknowledge: the work done by Simon, who came up with Bounded Rationality theory together with the satisficing decision-making model; the Prospect Theory and the extensive research on heuristics by Kahneman and Tversky; the regret aversion by Loomes, Sugden, Bell and Fishburn; and finally, the fundamental research and work produced by authors and academics, such as Allais, Thaler, Sunstein and Soman, among others, that will be deeply analysed in this paragraph.

2.1.1 Failures of the Expected Utility axioms

It is possible to find in economics an extensive literature on paradoxes that outline how individual behaviour detaches from the expected utility theory, by von Neumann and Morgenstern, and related axioms, analysed in section 1.1.4. "The expected utility theory has dominated in the analysis of decision-making under uncertainty, both as a normative model of rational choice and a descriptive model of how people actually behave. But not all of its predictions appear to be fully consistent with observed behaviour"[260]. As explained in the introduction to this paragraph, the divergence between the assumed and the actual human behaviour has been the main reason of the critics advanced by later authors, that have tried to build new predictive models of human behaviour, specifically descriptive and prescriptive models, proving the limits of the normative models and capable to capture human behaviour in real contexts.

One of the first author that has shone a light on the distinction between normative and descriptive models, particularly in the field of the decision-making, is Maurice Allais. This author is well-known for the Allais Paradox, introduced in 1953, after some experiments conducted to prove the limits of the expected utility theory. In particular, Allais asked to a sample of individuals to select between two monetary outcomes according two different lotteries[261]. The experiment was presented as follows: the first choice is between option A and option B; option A gives 1 million € with probability equal to 100%, while option B presents 3 different scenarios: 5 million € with probability 10%, 1 million € with probability 89% and 0 with probability 1%. The second choice is between option C and option D; option C presents 2 scenarios: 1 million € with a probability equal to 11% and 0 with a probability 89%; option D presents 2 scenarios as well: 5 million € with a probability equal to 89% and 0 with a probability 90%.

[259] Bell, D. E., Raiffa, H., & Tversky, A. (Eds.). (1988). *Decision making: Descriptive, normative, and prescriptive interactions*. Cambridge university Press.

[260] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 171-186.

[261] In the theory of choice under uncertainty, the units subject to choice are called lotteries.

Here a graphical representation:

Outcome	Probability
0	0
1 M	1
5 M	0

OPTION A

Outcome	Probability
0	0.01
1 M	0.89
5 M	0.1

OPTION B

Outcome	Probability
0	0.89
1 M	0.11
5 M	0

OPTION C

Outcome	Probability
0	0.9
1 M	0
5 M	0.1

OPTION D

In the four tables, it is possible to identify the monetary gains in the first column, and the associated probabilities, in the second one.

The results of the experiment shown that the 60% of individuals part to the experiments had preferred option A to option B and option C to option D. These conclusions can be justified with the following explanations.

The majority of individuals choose the alternative A (certain outcome) to B (uncertain outcome) since option B, despite it has a higher expected value, presents a possibility, equal to 1%, to gain nothing. The fact that the probability to win 5 million € is much higher than the one to win nothing doesn't make individuals change their mind: they will always prefer the certain win. In contrast, individuals choose the alternative D to C, because, considering that individuals have a low probability to gain something in both cases, they prefer a higher win with a lower probability than a lower win with a higher probability.

It is possible to notice that, in the first case the focus is on the probability of the event, whereas in the second is on the monetary gain. With respect to this, Allais pointed out that the results are not consistent with the expected utility theory: the independence axiom implies that if the alternative A is preferred to B, therefore C should be preferred to D. The result of the first choice suggests that the sum of the utilities multiplied by their probabilities in A is greater than the sum of the utilities multiplied by their probabilities in B:

$$u\ (a) > u\ (b) = u\ (10^6) > 0.1u\ (5 * 10^6) + 0.89u\ (10^6)$$

Subtracting 0.89*10^6 in both sides of the equation we obtain:

$$0.11u\,(10^6) > 0.1u\,(5 * 10^6)$$

In contrast, the result of the second choice, according to which option D is preferred to option C, implies u (c) < u (d), namely:

$$0.11u\,(10^6) < \; 0.1u\,(5 * 10^6)$$

Here lies the Allais Paradox: the conflicting equations prove evidence to the fact that the choices of individuals are not consistent with the expected utility theory. The normative expected utility model, despite its coherence and internal validity, proved to detach from empirical evidence.

Additional tests of the EU axioms, that have proven their limitations, have been done by, Mosteller and Nogee (1951), Ellsberg (1961), Tversky (1969), Bar-Hillel (1973), Tversky and Kahneman (1979), among others[262].

Concerning the transitivity axiom, Tversky[263], in his work "Intransitivity of preferences", examined some conditions under which it might be violated.

Tversky, in his work, firstly outlined that the transitivity axiom has a deterministic and a stochastic form[264]. The former is the one outlined in section 1.1.4, according to which $u > v$, $v > w$ imply $u > w$.

Despite the logical and normative validity of this axiom, "individuals are not perfectly consistent in their choices. When faced with repeated choices between x and y, people often choose x in some instances and y in others"[265]. Mosteller and Nogee came previously, in 1951, to the same conclusion: subjects on repeated measures of preference would not always give the same answer[266]. Individuals may be inconsistent in their choices, even in the absence of systematic changes in their taste; hence, it is possible to observe an inherent variability or momentary fluctuation in the evaluative process of the decision maker. This suggests that "preference should be defined in a probabilistic fashion"[267], accordingly Tversky introduced a stochastic version of the transitivity axiom: "to do so, let P(x,y) be the probability of choosing x in a choice between x and y, where P(x,y) + P(y,x) = 1. Preference can now be defined by: x≥y if and only if P(x,y) ≥ ½"[268] .

262 Schoemaker, P. J. (1982). The expected utility model: Its variants, purposes, evidence and limitations. *Journal of economic literature*, 529-563.
263 Tversky, A. (1969). Intransitivity of preferences. *Psychological review*, *76*(1), 31-48.
264 In deterministic models, the output of the model is fully determined by the parameter values and the initial conditions. Stochastic models possess some inherent randomness. The same set of parameter values and initial conditions will lead to an ensemble of different outputs. (NC State University lectures, 2013). Available at [https://www4.stat.ncsu.edu/~gross/BIO560%20webpage/slides/Jan102013.pdf]
265 Tversky, A. (1969). Intransitivity of preferences. *Psychological review*, *76*(1), 31.
266 Schoemaker, P. J. (1982). The expected utility model: Its variants, purposes, evidence and limitations. *Journal of economic literature*, 529-563.
267 Tversky, A. (1969. Intransitivity of preferences. *Psychological review*, *76*(1), 31.
268 *Ibidem*, 31.

Inconsistency is now taken into-account since x is said to be preferred to y only when it is chosen over y more than half time. Restating the transitivity axiom in terms of this definition yields: $P(x,y) \geq ½$ and $P(y,z) \geq ½$ imply $P(x,z) \geq ½$.

This condition goes by the name of weak stochastic transitivity and has been tested by Tversky with two experiments: the first one on preferences between simple gambles and the second one on the selection of college applicants.

The empirical studies proved showing that, under appropriate experimental conditions, the behaviour of some people is intransitive (i.e., intransitivity of preferences) and that the intransitivities are systematic, consistent and predictable[269], hence not attributable to momentary fluctuations or random variability.

Tversky, together with Kahneman, in 1979, examined also the invariance or independence of preferences axiom with a research, that led to a generalization of the Allais' paradox. "They observed a so-called certainty effect according to which outcomes obtained with certainty loom disproportionately larger than those which are uncertain"[270]. Consider the following situations:

Situation A:

(1a) a certain loss of $45

(2a) a 0.5 chance of losing $100 and a 0.5 chance of losing $0

Situation B:

(1b) a 0.10 chance of losing $45 and a 0.9 chance of losing $0

(2b) a 0.05 chance of losing $100 and a 0.95 chance of losing $0

Evidence showed that most subjects preferred (2a) to (1a) and (1b) to (2b) that violates again the EU Theory, in particular the independence or invariance of preferences axiom.

This experiment focuses on a *loss-framed* scenario, whereas the Ellsberg previous experiment, in 1961, provides a *gain-framed* example. Despite the focus of his study was on the probability dimension, he showed that people dislike ambiguity as to exact level of the probability of winning (*pi*). "The essential finding was that subjects look at more than the expected value of such a probability, when given some priori distribution as to its levels. This sensitivity to other moments is contrary to EU theory for which only $E(\tilde{p}_i)$ matters"[271] (i.e., the expected value).

What emerges from these studies is also the limit of the traditional risk aversion assumption in economics and finance, particularly for losses, that represents a central step in the definition of Prospect Theory, by Kahneman and Tversky, that will be later analysed.

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[269] Tversky, A. (1969. Intransitivity of preferences. *Psychological review*, *76*(1), 40.

[270] Schoemaker, P. J. (1982). The expected utility model: Its variants, purposes, evidence and limitations. *Journal of economic literature*, 543.

[271] *Ibidem*.

An additional study that deserves attention is the one provided by Bar-Hillel in 1973, who proved the limits of the compound lottery axiom. The latter is a theoretical consequence of the EU theory: since the focus of this theory is on the utility or expected value of a certain event, it follows that individuals should care only about the essential properties of any lottery or combination of lotteries they might hold, namely the probabilities of all the consequences. "Specifically, they should be indifferent between a compound lottery (1) consisting of the constituent simple lotteries (2) on the one hand, and a single simple lottery whose probabilities are given by (3) on the other hand"[272]. This axiom has been challenged by Bar-Hillel, who found that people tend to overestimate the probability of conjunctive events and underestimate the probability of disjunctive events. In particular, in the study, subjects were presented with three events on which they could bet:

1. A simple event: drawing a red marble from a bag containing 50 % red and 50 % white marbles.
2. A conjunctive event: drawing a red marble 7 times in succession, with replacement, from a bag containing 90 % red marbles and 10 % white marbles.
3. A disjunctive event: drawing a red marble at least once in 7 successive tries, with re- placement, from a bag containing 10 % red marbles and 90 % white marbles.

The majority of the respondents preferred bet 2 to bet 1 and bet 1 to bet 3. The probabilities of the three events, however, are 50%, 48% and 52% respectively. "These biases can be explained as effects of anchoring: i.e., the stated probability of the elementary event (0.1 in the disjunctive case) provides a natural starting point from which insufficient adjustment is made to arrive at the final answer"[273]. Anchoring bias is a central heuristic in the field of bounded rationality and cognitive bias, that will be explored in section 2.1.4.

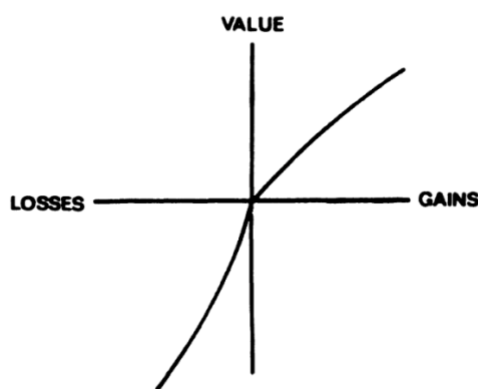
2.1.2 Prospect Theory

Prospect Theory, since its formulation by Kahneman and Tversky in 1979, has emerged as a leading alternative to expected utility as a theory of decision under risk. The two authors, in 1979, presented the results of a series of laboratory experiments involving hypothetical choices, that according to Levy[274], can be summarized into 6 theoretical foundations, forming the so-called Prospect Theory.

First off, "people tend to think in terms of gains and losses rather than in terms of their net assets, and therefore encode choices in terms of deviations from a *reference point*"[275]. The reference point is usually considered as being a status quo, but it can also represent anything else, like an aspirational level, with respect to which decision makers make their choices.

[272] ECO 317 – Economics of Uncertainty – Fall Term 2009. Notes for lectures -The Expected Utility Theory of Choice Under Risk. Princeton University.
[273] Schoemaker, P. J. (1982). The expected utility model: Its variants, purposes, evidence and limitations. *Journal of economic literature*, 543
[274] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 171-186.
[275] *Ibidem* 174

Secondly, people value gains differently than losses; particularly, individuals tend to be risk-averse with respect to gains and risk-acceptance with respect to losses. Two experiments conducted by Kahneman and Tversky[276] strongly prove this finding: in the gain-frame scenario, 80% of respondents preferred a certain outcome of $3000 to an 80% chance of $4000 and 20% chance of nothing. In contrast, in the loss-frame scenario, 92% of respondents preferred a gamble on an 80% of losing $4000 and 20% of losing nothing to a certain loss of $3000. "In both cases respondents chose the option with the lower expected value and the combination of these two patterns is inconsistent with the expected utility theory"[277], that, instead, postulated that individuals want to maximize their expected utility value. These experiments suggest what is called reflection effect around the reference point: individual utility functions are concave in the domain of gains (risk-averse) and convex in the domain of losses (risk-seeking): "this means, among other things, that the sensitivity to changes in assets decreases as one moves further from the reference point in both directions, which would not be true of a utility function which was either strictly concave or strictly convex"[278]. Here a graphical representation provided by Kahneman and Tversky:



[279]

Figure 5

Following the second statement, according to which gains are treated differently than losses, it is possible to define two phenomena that affect consumers' decision-making process: *loss aversion* and *endowment effect*. With the former, it is meant that people prefer the status quo, or any other reference point, over a 50/50 chance for positive and negative alternatives with the same absolute value: "a salient characteristic of attitudes to changes in welfare is that *losses loom larger than gains*. The aggravation that one experiences in losing a sum of money appears to be greater than the pleasure associated with gaining the same amount"[280].

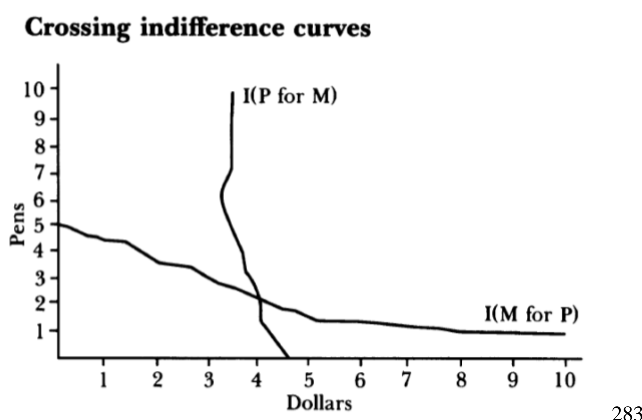
On the other hand, consumers over-evaluate their current possessions, going through what is called the endowment effect: "people value what they have more than "comparable" things they do not have"[281]. In order to better understand and to prove this phenomenon, it is interesting to take into-account the experiment

[276] Kahneman, Daniel, & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 266.
[277] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 174
[278] *Ibidem, 174*
[279] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 181; Kahneman, Daniel, & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 279.
[280] Kahneman, Daniel, & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 279.
[281] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 175

conducted by Knetsch, in 1989[282]. In the experiment, participants are divided into 3 groups: the first group owing a mug, the second one owing a candy bar and the third one owing nothing. 56% of the participants belonging to group 3, when given a simple choice without a prior entitlement of reference point, selected a mug in preference to a candy bar. Only the 10% of participants of group 2 valued a mug more than a candy bar when they had to renounce the candy in order to obtain a mug and the 89% of individuals in group 1, who initially received a mug, declined to give it up for a candy bar. This experiment clearly demonstrated the endowment effect: individuals, indeed, place a higher value on an object that they already own than the value they would place on that same object if they did not own it, demonstrating to be loss-averse with respect to their initial possession.

The endowment effect and the loss aversion have important implications for the utility theory and challenge some of its theoretical assumptions. First off, preferences are *not* invariant under different representations of equivalent choice, since the framing of the scenario do have a relevant influence on consumer's decision-making process. Secondly, the indifference curves are *not* reversible and nonintersecting, as the neoclassical economics, together with the EU theorem, postulate. According to reversibility assumption, if an individual owns x and is indifferent between keeping it and trading it for y, then when owning y, the individual should be indifferent about trading it for x.

Taking into-account the described experiment by Knetsch, together with a study by the same author, in 1990, this statement no longer holds. In particular, in a 1990 study, Knetsch succeeded to draw *crossing indifference curves*. In the experiment, the sample was divided in two groups: the first one received 5 medium priced ball point pens, whereas the second one got $4.50. Participants were, then, involved in a series of offers which they could accept or reject. Specifically, the offers were thought in order to identify an indifference curve: for instance, someone who had been given the pens would be asked if *she* would give up one of the pens for a dollar. Knetsch, initially draw an indifference curve for each individual and, then, he plotted the average indifference curve for each of the two groups, as follows:



283

Figure 6

[282] Knetsch, J. L. (1989). The endowment effect and evidence of nonreversible indifference curves. *The American Economic review*, *79*(5), 1277-1284.
[283] Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic perspectives*, *5*(1), 197.

"The curves are quite different: the pens were worth more money to those subjects who started with pens than to those who started with money. As a result, the curves intersect."[284]

Finally, the endowment effect challenges the assumption according to which preferences are independent of endowments: one's preference between A and B may depend on whether A is currently part of one's endowment. "It should be noted, however, that the endowment effect and loss aversion do not appear to apply to normal commercial transactions. Money expended on an item is not treated as loss, and goods purchased for eventual sale or barter - as opposed to used - generally do not generate an endowment effect"[285].

Fourth theoretical consequence is the *framing effect*, according to which the context or the way information is presented influences decision maker's choice.

In order to understand the framing effect, it is worth presenting the Asian Disease problem, firstly introduced by Kahneman and Tversky, in 1980. Subjects were given a hypothetical choice between two alternative programs to combat the outbreak of a disease which was expected to kill 600 people, both in two different framings: a survival frame and a mortality frame. In the survival frame, the two alternative programs were presented in terms of the number of people who would be saved: option A guaranteed 200 people saved for sure, while option B guaranteed 600 people saved with probability 1/3 and none saved with probability 2/3. In contrast, in the mortality frame, the alternative programs were presented in terms of the number of people who would die: option C envisaged a certain death 400 people, while option D comprised the death of no-one with probability 1/3 and the death of 600 people with probability 2/3.

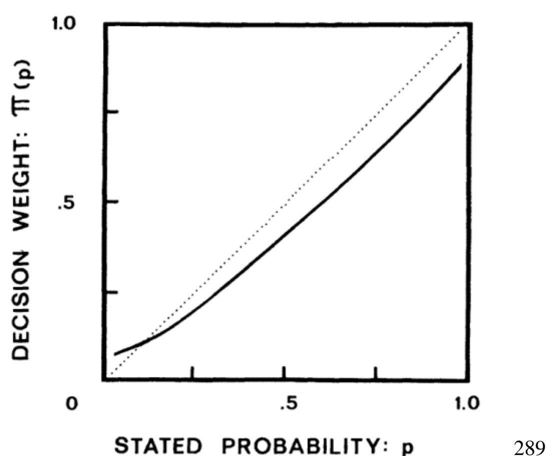
"A strong majority (72%) favoured the cautious alternative A in the survival frame, but a comparable majority (78%) favoured the risky alternative in the mortality frame"[286], showing that individuals are highly affected by the way in which information are presented.

The framing effect has to be coordinated with what has been called "accommodation", especially in situations where individuals face a sequence of individual choices. "Individuals accommodate to gains or losses. Accommodation to losses induces a tendency toward risk-aversion (relative to non-accommodation), whereas accommodation to gains induces risk-seeking behaviour to keep those gains"[287].

Fifthly, Kahneman and Tversky have provided evidence to the *certainty effect*, according to which individuals overweight certain outcomes to outcomes that are merely probable. As a consequence, individuals value more changes in probability near 0 and 1 than changes in the middle of probability range (*sub-proportionality*). The Russian roulette example[288] clearly illustrates this phenomenon: people are willing to pay far more to reduce the number of bullets in a revolver from 1 to 0 than from 4 to 3. Basing on the reported

[284] Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic perspectives*, *5*(1), 197.
[285] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 176
[286] *Ibidem*.
[287] *Id*, 177.
[288] Quattrone, G. A., & Tversky, A. (1988). Contrasting rational and psychological analyses of political choice. *The American political science review*, 719-736.

findings, it is possible to define a hypothetical weighting function, firstly provide by Kahneman and Tversky, as follows:



[289]

Figure 7

The weighting function is not well-behaved near its endpoints: this catches the *unpredictability of behaviour* under conditions of extremely small or extremely large probability. "In other words, the variance in the probability weighting function is not constant and is quite large in the region near 0 or 1"[290]. What follows is that highly unlikely events are either ignored or overweighed. This finding clearly challenges the expected utility model, since probabilities are not only characterized by a numerical value but are also influenced by the individual attitude toward events.

Finally, Kahneman and Tversky have outlined the *isolation effect*, according to which individuals, in order to simplify the choice between different alternatives, often disregard components that are common to each of the option and rather focus on the components that differ.

2.1.3 Bounded rationality and satisficing decision-making model: Simon's contributions to BE

Herbert Simon, 1978 Nobel prize economist, is one of the first author that has proven the limits of the Neoclassical Theory of Consumption, thanks to an extensive research in the field of cognitive studies and decision-making. Particularly, in 1957, in his work "A behavioral model of rational choice", the author came up with the idea of bounded rationality, to explain the inadequacy of the rationality norm of neoclassical economics, which assumed *unconstraint global* rationality.

At the core of bounded rationality there is the idea of *informational asymmetry*: decision makers usually are not able to obtain all the information relevant to the problem by the time a decision has to be made and additionally, they often cannot perceive accurately all the given information. Especially when a question is very complex (as questions in reality generally are, since there are an infinite number of variables to take into-

[289] Kahneman, Daniel, & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 283.
[290] Levy, J. S. (1992). An introduction to prospect theory. *Political Psychology*, 178.

account), gathering all the information can become too costly. In this condition, it becomes irrational to want to be fully informed: faced with a choice situation in which it is impossible to optimise, or where the computational cost of doing so seems onerous, the decision-maker may seek a satisfactory alternative rather than an optimal one. With reference to this, Simon introduced in 1956, the so-called *satisficing decision-making strategy*, according to which individuals look for a satisfactory or adequate result, rather than the optimal solution. In other words, decision makers, instead of putting maximum exertion toward attaining the ideal outcome, they focus on pragmatic effort when confronted with tasks, since aiming for the optimal solution would lead to a needless expenditure of time, energy, and resources. Practically, individuals set some aspiration levels, that are not negotiable and then start looking for an adequate solution, that can fill the defined aspirational levels. "Models of satisficing behaviour are richer than models of maximizing behaviour, because they treat not only of equilibrium but of the method of reaching it as well"[291].

Simon identified 3 founding propositions in the satisficing decision-making strategy: first off, when performance falls short the level of aspiration, search behaviour is induced; secondly, the level of aspiration starts to adjust itself downward until goals reach levels are practically attainable; thirdly, if the described mechanisms are too slow to adapt aspirations to performance, emotional behaviour (e.gg., apathy or aggression) will replace rational adaptive behaviour. This third point shows the attempt made by Simon to recognize the influence of emotions in human thinking and decisions[292], particularly in the phases before actual decision-making: for instance, in the first phase of attention, emotions can distract individuals from their current thoughts and actions and make them focus their attention to tasks that stimulate and require an immediate attention. The link between attention and emotions will be further explored in section 2.1.6.

Simon, in particular, rejected the substantive rationality that economic models assume, and, through observation, he maintained that businessmen and other economic actors pursue procedural rationality. They tempted to proceed in a reasonable manner, purposefully rationally in terms of the decision-making process itself, in a way that could be defined as boundedly rational. "However, procedural rationality did not assure *ex post* substantive rationality, and given the limitations of information, time and computer programs, the most rational way to proceed was not always that of careful calculation, but by the use of heuristics"[293].

Heuristics have been defined by Simon as "any principle[s] or device[s] that contribute to the reduction in the average search to a solution"[294], used by individuals in the attempt to simplify their decision-making process. Simon noted that heuristics were systematic cognitive bias and not unpredictable errors that the neoclassical models allowed for. Soman, in a later work titled "The last mile", defines a cognitive bias as "any systematic deviation from a response or decision that you would expect a decision maker to make"[295], stressing

[291] Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *The American economic review*, *49*(3), 263.
[292] Muramatsu, R., & Hanoch, Y. (2005). Emotions as a mechanism for boundedly rational agents: The fast and frugal way. *Journal of Economic Psychology*, *26*(2), 202.
[293] Schwartz, H. (2002). Herbert Simon and behavioral economics. *The Journal of Socio-Economics*, *31*(3), 182.
[294] *Ibidem*, 182. Originally from Newell, A., & Simon, H. A. (1972). *Human problem solving* (Vol. 104, No. 9). Englewood Cliffs, NJ: Prentice-hall.
[295] Soman, D. (2015). *The last mile: Creating social and economic value from behavioral insights*. University of Toronto Press, 185.

again the idea of non-randomness of the heuristics. Extensive research on heuristics have been done later by Kahneman and Tversky and will be analysed in section 2.1.4.

To sum up, Simon emphasized descriptive analyses to show the shortcomings of the neoclassical analysis for understanding human behaviour and prescriptive recommendations to help resolve actual problem-solving, replacing the perfect rationality assumptions of *homo economicus* with a conception of rationality tailored to cognitively limited agents.

2.1.4 The cognitive bias: Kahneman's and Tversky's contributions to BE

In 1974, Kahneman and Tversky published a book titled "Judgment Under Uncertainty: Heuristics and Biases", that has given fundamental contribution in the field of behavioural economics. The two authors, following Simon's perspective in previous works, recognize that individual decision making is affected by heuristics, that help individuals to simplify their decision-making process, but, at the same time, lead to sever and systematic errors. The impressions or judgments, that follow the decision-making process, are characterized by three main features: individuals are not generally aware of the rules that govern their impressions; secondly, individuals cannot deliberately control their perceptual impressions; and thirdly, it is possible to recognize the situations in which impressions are likely to be biased and to make appropriate corrections to fix them.

Just to provide an example, when individuals evaluate the distance of a hill, they are normally ignorant of the important role of blur in the perception; indeed, the apparent distance of an object is determined in part by its clarity: the more sharply the object is seen, the closer it appears to be. Additionally, following the second point, a sharply seen hilltop looks near, even if one has learned of the effect of clarity on the perception of distance, proving that individuals cannot control their perceptual impression. Nonetheless, individuals can correct their biased judgment on the distance, for example, considering the possibility that the summit is further than it looks if the day is particularly clear. It follows that, individuals are rarely aware of the basis of their impressions and have little control over the processes leading to their judgment; nevertheless, they can learn to identify the heuristic processes that determine their impressions.

Kahneman and Tversky, in their work, focus and deeply examine three heuristics: representativeness, availability and anchoring.

According to *representativeness heuristic*, "probabilities are evaluated by the degree to which A is representative of B, i.e., by the degree of similarity between them. When A and B are very similar, e.g., when the outcome in question is highly representative of the process by which it originates, then its probability is judged to be high"[296]. On the other hand, if the outcome is not representative of the input, the probability is evaluated as low. In this regard, it is relevant to acknowledge the "Linda the Bank Teller" experiment,

[296] Kahneman, D., & Tversky, A. (1973). *Judgment under uncertainty: Heuristics and biases* (Vol. 13, pp. 1-33, Tech. No. 1). Oregon Research Institute, 3.

presented by Kahneman and Tversky in 1983, in their work "Extensional vs. Intuitive Reasoning: Conjunction Fallacy in Probability Judgment". The participants to the experiment were presented with the following scenario:

> "Linda is 31 years old, single, outspoken and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations. (1) Linda is a teacher in elementary school; (2) Linda works in a bookstore and takes Yoga classes; (3) Linda is active in the feminist movement; (4) Linda is a psychiatric social worker; (5) Linda is a member of the League of Women Voters; (6) Linda is a bank teller; (7) Linda is an insurance salesperson; (8) Linda is a bank teller and is active in the feminist movement"[297].

They were asked, in particular, to rank 8 possible future scenarios for Linda, according to their probability to occur. Two salient answers emerged: "Linda is a bank teller" and "Linda is a bank teller and is active in the feminist movement"; when people were asked which of the two was more probable, more than 80 percent of participants chose option 2, regardless of whether they were novice, intermediate or expert statisticians. The answer is logically vitiated: classical probability theory postulates that one event is more likely to occur than two concurrent events. This example not only shows how representative heuristic biases individual decision-making, but also shows the so-called *conjunction fallacy*, according to which people erroneously believe the likelihood of a conjoint event is greater than the likelihood of a component (single) event.

On the other hand, according to the *availability heuristic*, "people assess the frequency of a class or the probability of an event by the ease with which instances or occurrences could be brought to mind"[298]. Just to provide a simple example, people experiencing a heart-quake will believe that such event is more likely to occur than people who have never lived that calamity. Further, individuals generally value more the probability of vivid and easy-to-imagine causes of death (hurricanes) than the probability of less salient causes of death (asthma attacks), despite the latter are events that happen more frequently[299].

Finally, *anchoring heuristic* implies that "in many situations, people make estimates by starting from an initial value which is adjusted to yield the final answer. The initial value, or starting point, may be suggested by the formulation of the problem, or else it may be the result of a partial computation"[300]. A salient example has been reported by Kahneman in his work "Thinking Fast and Slow". Once, at the University of Oregon, Kahneman and his colleague Tversky set an experiment with a group of students and rigged a wheel of fortune that was marked from 0 to 100, but ended up to have only two numbers: 10 and 65. Students needed to write down the number on which the wheel stopped and, then, they were asked: "is the percentage of African states

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[297] Kahneman, D., & Tversky, A. (1983). *Extensional vs. Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment* (Vol. N.D., pp. 1-61, Tech. No. N.D.). Stanford, California: Stanford University, 11.

[298] Kahneman, D., & Tversky, A. (1973). *Judgment under uncertainty: Heuristics and biases* (Vol. 13, pp. 1-33, Tech. No. 1). Oregon Research Institute, 17.

[299] Thaler, R. H., Oliveri, A., & Sunstein (2008). *Nudge: La spinta gentile: la nuova strategia per migliorare le nostre decisioni su denaro, salute, felicità*. Feltrinelli, 33.

[300] Kahneman, D., & Tversky, A. (1973). *Judgment under uncertainty: Heuristics and biases* (Vol. 13, pp. 1-33, Tech. No. 1). Oregon Research Institute, 20.

among UN members greater or smaller than your number? What is your best guess of the percentage of African states among UN members?". The average estimate of students getting 10 was 25%, whereas the average estimate of students getting 65 was 45%[301]. This example shows how initial numbers work as anchors, according to which individuals tend to adjust their decisions and judgments.

"Thinking Fast and Slow" is a 2011 book by Kahneman; in his work, the author, deepens and explores the work on cognitive bias, firstly recognizing that individual's mind is composed by two systems: system 1 (*fast*) and system 2 (*slow*).

The first one operates in unconscious, automatic, effortless way, leading individuals to act or judge according to their first impressions and intuitions. In this context, individual's mind works in free-flow mode of cognitive ease: "you are going to be more impulsive, more emotional, more optimistic"[302]; this system makes 98% of all of our thinking[303]. "System 1 provides the impressions that often turn into your beliefs, and is the source of the impulses that often become your choices and your actions. […] It is the source of your rapid and often precise intuitive judgments. And it does most of this without your conscious awareness of its activities. System 1 is also […] the origin of many systematic errors in your intuitions"[304], due to the methodical use of mental shortcomings or heuristics. From a marketing point of view, there are many implications, directly deriving from the intuitive and impulsive way of reasoning of system 1, for instance, in the presentation of persuasive messages; this represents a key-point in the discussion about Dark Patterns, that will be explored in chapter 3 of this analysis.

In contrast, system 2 operates in a deliberate and conscious, effortful way. It represents a controlled mental process and rational thinking, and it is characterized by self-awareness or control, eventually leading to a logical and sceptical flow of reasoning. However, it is actioned by individuals the 2% of their thinking. Here's an example to make clear the functioning of the two systems: "a bat and a ball cost $1.10; the bat costs one dollar more than the ball; how much does the ball cost?"[305]. The great majority of people's system 1 would lead them to answer 10 cents, as an easy and intuitive answer. However, this is not correct: if the ball would cost 10 cents, the overall cost would be equal to $1.20. The correct answer is 5 cents, and it is possible to detach it only by actioning our system 2.

In addition, Kahneman in his book "Thinking Fast and Slow" further explores the cognitive bias affecting individuals' reasoning, specifically system 1.

First off, human beings go through the so-called *illusion of understanding*, according to which they "believe [they] understand the past, which implies that the future also should be knowable, but in fact [they] understand the past less than [they] believe [they] do. Know is not the only word that fosters this illusion. In

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[301]Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux, 133.
[302]Kahneman, D. "Thinking Fast vs. Thinking Slow". Schurenberg, E. *Inc. Magazine*. December 3, 2013. Available at: [https://www.youtube.com/watch?v=PirFrDVRBo4&t=395s].
[303] Groenewegen, A. (n.d.). Kahneman Fast And Slow Thinking Explained. Available at: [https://suebehaviouraldesign.com/kahneman-fast-slow-thinking/].
[304] *Id*, 66.
[305] Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux, 49.

common usage, the words intuition and premonition also are reserved for past thoughts that turned out to be true"[306]. Additionally, individuals are affected by an *illusion of validity*[307], namely the tendency to be overconfident in the accuracy of our judgements and predictions. As pointed out by Kahneman, "subjective confidence in a judgment is not a reasoned evaluation of the probability that this judgment is correct. Confidence is a feeling, which reflects the coherence of the information and the cognitive ease of processing it"[308]. Thirdly, the *illusion of ability*, according to which individuals tend to be overconfident when they are particularly knowledgeable in specific context. "why do investors, both amateur and professional, stubbornly believe that they can do better than the market, contrary to an economic theory that most of them accept, and contrary to what they could learn from a dispassionate evaluation of their personal experience?"[309]: the wide knowledge they have acquired, make them feel confident on their financial decisions. All these illusions go under *overconfidence* paradigm characterizing individuals, that basically think they know better than they actually do; as a direct consequence, they tend to look after coherent narratives starting from their past, possibly going through errors in decisions and forecasting.

Additionally, individuals go through the *hyperbolic discounting*, namely a human beings' inclination to choose immediate rewards over rewards that come later in the future, even when these immediate rewards are smaller than the future ones. Just to provide an example, people value more the immediate pleasure of a cigarette now than the costs of smoking in the long run.

Furthermore, individuals are characterized by *status quo bias*, that represent a central heuristic in this analysis about Dark Patterns. It represents individual's preference for the current state of affairs, resulting in resistance to change. Most decisions have the status quo alternative which is simply to stick to your current choice; for instance, default options. With default options, individuals tend to stay with the opt-in or already selected choice. One of the Dark Patterns is the so-called "*preselection"*, namely the firm-friendly default is preselected; this point will be further analysed in chapter 3 of this analysis.

Finally, individuals, according to the *self-positivity bias*, tend to overestimate the likelihood of experiencing positive events and to consider negative events, like illnesses, as being more unlikely to happen to them[310].

As already explained in the frame of the work "Judgment Under Uncertainty: Heuristics and Biases", "not all mistakes are avoidable, but there are some that, if you brought system 2 to be here and if you slow yourself down, you can avoid"[311].

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[306] Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux, 222.
[307] This heuristic has been identified for the first time by Kahneman and Tversky in their work "On the psychology of prediction" (1973).
[308] Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux, 234.
[309] *Id*, 239.
[310] Lin, Y. C., Lin, C. H., & Raghubir, P. (2003). Avoiding anxiety, being in denial, or simply stroking self-esteem: Why self-positivity?. *Journal of Consumer Psychology*, *13*(4), 464-477.
[311] Kahneman, D. "Thinking Fast vs. Thinking Slow". Schurenberg, E. *Inc. Magazine*. December 3, 2013. Available at: [https://www.youtube.com/watch?v=PirFrDVRBo4&t=395s].

2.1.5 Additional contributions to BE: the regret aversion and the sunk cost fallacy

Further research on Behavioural Economics has been conducted by Loomes and Sugden, who, in 1982, published "Regret Theory: an Alternative Theory of Rational Choice under Uncertainty", outlying the idea of regret aversion characterizing individuals.

Regret aversion is defined as a general preference for safety and certainty over uncertainty, and the potential for loss or pain. This has particular implications in finance and investment realm; specifically, investors, when faced with a choice between two investments that have the same expected return, will choose the one with lower risk. Despite risk aversion seems pretty much the same to loss aversion, the latter is actually a more complex behavioural bias in which people express both risk aversion and risk seeking behaviour, according to the framing of the scenario.

The second element of behavioural studies that deserve attention is the *sunk cost fallacy* or sunk cost effect, according to which individuals tend to keep up with a behaviour or endeavour as a result of previously invested resources (time, money or effort). This phenomenon has been widely studied by Arkes and Blumer, who, in 1981, published "The psychology of sunk cost", and it is directly linked to loss aversion and status quo bias. There are two clear practical examples, reported by the two authors, that are pivotal to understand the sunk cost effect.

The first one concerns the money spent on a ticket for a football game. The situation is presented as follows: a man wins a contest sponsored by a local radio station and he is given a free ticket to a football game. Since he does not want to go alone, he persuades a friend to buy a ticket and go with him. The match day, a terrible snowstorm suddenly comes down. Despite the bad weather, the friend insists to go to the match, since he does not want to waste the twelve dollars he paid for the ticket; "the friend who purchased the ticket is not behaving rationally according to traditional economic theory"[312], but rather he is showing a loss averse behaviour.

A second example, not concerning money, but the effort invested in a political project, is presented as follows: "during late 1981 the funding for the immensely expensive Tennessee-Tombigbee Waterway Project was scheduled for Congressional review. As the above quotes indicate, proponents of the project insisted that to stop the project after a great deal had already been spent would represent a waste of taxpayers' money"[313].

Whether it is money, time or effort spent on something, individuals tend to not discard already invested resources and to keep up with their decisions.

[312] Arkes, H. R., & Blumer, C. (1985). The psychology of sunk cost. *Organizational behavior and human decision processes*, *35*(1), 125.
[313] *Ibidem*.

2.1.6 Consumer Neuroscience insights: attention and information processing

Consumer neuroscience emerged in 20th century, as combination of consumer research with modern neuroscience. Studying brain anatomy and monitoring consumers' responses has led to gain important insights on consumer decision-making, advertising, and branding. Specifically, "the theses of Kahneman […] have established solid theories on decision making that are obtaining further development through scientific research"[314].

For the purpose of this analysis, it is especially relevant to take-into account findings about *attention*. Attention is a fundamental factor in *information processing* as it decides what has the priority to enter in consumers' brain systems. It is possible to identify two types of attention that characterize individual's brain: *top down* and *bottom up*. "Top-down attention is the type we normally think of when we use the term-the things we choose to focus and shift our attention to"[315].

It is an intentional allocation of attention resources to a predetermined object or space, and it is affected by individuals' prior experience, knowledge, as well as their goals. For instance, "when looking for a car, the consumer's attention can be drawn toward "flashy" or expensive looking cars or cars they have researched previously"[316]. Bottom-up attention, in contrast, is activated in the first step of the attention process, when individuals are captured by surrounding salient events; for instance, in case of primary emotional stimuli present in the environment, in case of moving objects and, finally, in case of unexpected events. It follows that distraction can be identified as a form of bottom-up attention.

In the bottom-up attention stage, the part of our brain responsible for the detection of emotional elements within the environment is the amygdala. "The amygdala seems to modulate all of our reactions to events that are very important for our survival. Events that warn us of imminent danger are therefore very important stimuli for the amygdala, but so are events that signal the presence of food, sexual partners […] and so on"[317].

Additionally, as pointed out by Cerf and Garcia-Garcia, *context* has a relevant role in the stages of bottom-up attention processing. For instance, when individuals are performing demanding tasks, less resources will be available to monitor the surroundings. In this case, the level of distraction will be lower since the mind is working hard. When, on the other hand, individuals are involved in rapid decisions, visual saliency influence choices more than preferences. According to the visual salience bias, the most visually salient images are the most likely to be process in the brain: "visual cortex has limits in the amount of information it can process. The enhancement and inhibition of neural firing that controls the focus of attention […] is an evolutionary mechanism that helps ensure attention is directed to the information is most relevant to ongoing behaviour and to promote survival"[318]. Attentional focus is influenced by 3 elements: experience, top-down goal directedness and bottom-up environmental cues or salient items.

[314] Cerf, M., & Garcia-Garcia, M. (2017). *Consumer Neuroscience*. Cambridge, Massachusetts: The MIT Press, 12.
[315] *Id*, 104.
[316] *Id,* 106.
[317] *Id*, 28.
[318] *Id*, 112.

As a direct consequence, individuals go through the so-called *attentional blindness*, defined as "a perceptual phenomenon by which people fail to see relevant information when attending to competing information in the scene"[319].

It follows that attention is a limited cognitive resource and consumers can direct it only to preselected items. "Consumers are constantly being fed by information from advertising, but they can only process so much as cognitive resources are limited. While individuals can be exposed to up 11 million bits of information through sensory receptors, we are only capable of processing about 50 bits of information, which is only a fraction of what is being sent"[320]. The so-called *information overload* phenomenon refers to the difficulty in understanding an issue and effectively making decisions when individuals have too much information about that issue. "The relation between individuals (and consumers') information and quality of choices only holds until a certain threshold and has the characteristic of an inverted-U concave curve"[321]. Specifically, there is a positive correlation between the two variables up to a certain point; after that, any additional piece of information is even counterproductive.

To sum up, individuals can focus only on a limited number of items, generally considered as salient, or in line with individual's top-down goal directedness or, alternatively, already been seen before. Feeding consumers with too much information is not effective, since information is captured and processed according to human's cognitive limits. It follows that individuals are not perfectly rational actors capable to detect all kind of information, as postulated by Neoclassical Theory of consumption, but rather boundedly rational actors.

2.2 First emerging problems in consumer and data protection under the EU legal framework

As outlined in chapter 1 of this analysis, consumer protection in the EU legal framework has been built around the paradigm of the *rational* consumer, who is capable to detect all kind of information and, therefore, who needs only adequate information to fulfil her role in the market. Consumer information and education has acquired a central role in the construction of the discipline of consumer protection and all the European law tools, both primary and secondary ones, have reflected this orientation. "Many of the existing rules in the field of consumer protection are written with a fictional consumer in mind, one who reads labels, takes the time to scrutinise contracts and check the terms and conditions"[322].

In the light of the described behavioural studies, this perspective seems to be too optimistic: consumer behaviour does not actually reflect the rationality postulated by the Neoclassical model and consumers use

[319] Cerf, M., & Garcia-Garcia, M. (2017). *Consumer Neuroscience*. Cambridge, Massachusetts: The MIT Press, 112.
[320] *Id,* 103.
[321] Davola A. (2019), *The death of traditional consumer law at the crossroads of law, economics and cognitive sciences: a tentative reaction*, PH.D. In Individual Person and Legal Protections, Scuola Superiore Sant'Anna di Studi Universitari e di Perfezionamento, 131-132.
[322] Sibony, A. L., & Helleringer, G. (2015). EU consumer protection and behavioural sciences. *Nudge and the Law: A European Perspective*, 209.

shortcuts in order to simplify their decision-making process, relying on intuition (System 1) rather than deliberation (System 2), as well as they are subject to inertia and hyperbolic discounting of future costs.

The central critical point, in the field of EU consumer law and data protection is the so-called *information paradigm*, described in chapter 1, according to which increasing the amount of information and establishing full transparency help consumers with their decisions. Specifically, there are two core foundations directly deriving from this paradigm that has been extensively challenged by behavioural insights: *the average consumer* standard and the information disclosure requirements[323].

2.2.1 The limits of the information disclosure requirements

Consumers and users constantly have to deal with contracts, both offline and online ones. "Almost everything individuals do - from buying a cup of coffee, to online shopping, to signing on to a phone plan - is regulated by the rules of contract law"[324]. Especially with the advent of digital technology, individuals continuously need to face decisions concerning online contracts, terms and conditions; for instance, accept or refuse cookies. What emerged from an article published in 2013, in New York Times[325], contracts, and specifically online ones, tend to be very *wordy*: "James Gibson, a professor of law at the University of Richmond, looked at contracts consumers needed to agree to - by clicking on them -to get software running for computers bought from four major sellers. All the contracts, he said, "were an average of 74,000-plus words, which is basically the length of the first Harry Potter book."[326]

As outlined in chapter 1 of this analysis, the regulation of contracts, offline or online, is built around the idea of disclosure of information to the consumer or the user, and central in the contract discipline is the principle of transparency, expressly outlined in the UTD, in the UCPD and in the GDPR. "The EU legislators decided to introduce a model for protection by information based on a wide catalogue of information duties"[327], according to the idea that more provided information leads to better informed consumers, capable to assess the benefits and risks of every transaction in place.

Specifically, as already explained, Article 5 of the CRD lists all the relevant information the trader shall provide the consumer in a clear and comprehensible manner, before the consumer is bound by the contract; Article 7 of the UCPD on misleading omissions draft all the essential information that shall be provided to the consumer. Further, section 2 of the GDPR, comprehensive of Article 13 and 14, presents all the information that shall be given to the user.

[323] Sibony, A. L., & Helleringer, G. (2015). EU consumer protection and behavioural sciences. *Nudge and the Law: A European Perspective* 214.
[324] Eldridge, J. (2015, October 15). We all enter contracts every day, so why are they still so hard to understand? Retrieved from [https://theconversation.com/we-all-enter-contracts-every-day-so-why-are-they-still-so-hard-to-understand-49129].
[325]Tugend, A. (2013, July 12). Those Wordy Contracts We All So Quickly Accept. Retrieved from [https://www.nytimes.com/2013/07/13/your-money/novel-length-contracts-online-and-what-they-say.html].
[326] *Ibidem*.
[327]Południak-Gierz, K. (2017). From Information Asymmetry to Information Overload-Technological Society of Consumers. *Contemporary issues of societal development*, 33.

Not only a long and detailed list of information requirements matter within the EU framework, but rather information should be provided in a plain and intelligible language[328], or alternatively, with reference to the GDRP, with clear and plain language[329]. Otherwise, with reference to the UCPD, traders shall not hide or provide in an unclear, unintelligible, ambiguous or untimely manner material information[330]. The general idea is to promote information disclosure under the principle of transparency.

"Here strikes the paradox: this amount of data is *highly unlikely to be transparent*. The abundance of aspects the consumer has to be informed about by itself must obscure the picture"[331].

As pointed out by Południak-Gierz[332], even taking into-account the *homo oeconomicus*, outlined by the Neoclassical model and taken as a benchmark by the EU law, providing too much information is not effective. The economic models, where benefits and costs come into play, postulate that benefits must exceed the costs: "absorbing all the provided information, understanding it, selecting data relevant in a particular situation and processing it in order to take the best decision is often time consuming, intellectually demanding and tiring"[333]. For this reason, costs of processing all the information disproportionately exceed the value of the concluded contract and, even more, the possible benefits of knowing the pre-contractual information.

But the real point here is that individuals do not behave as perfectly rational actors, reason why it is very unlikely that information paradigm for consumer or data protection may properly work. Just to mention one emerging problem, providing individuals with too much information leads to the *information overload effect*, caused by the chaotic and uncomprehensive way in which data is presented.

Additionally, individuals are subject to the so-called *endowment effect*: "an average person preferers what he already has in possession to the thing he can obtain"[334]; furthermore, a person who has already made an effort to read the available information is usually too involved to assimilate some new aspects that should influence the decision. It follows that people tend to stay with what already acquired in terms of understanding and learning: "these tendencies automatically diminish the weight of pre-contractual information in consumer's decision process"[335].

Thirdly, individuals tend to be too optimistic and overconfident with respect to their knowledge and ability, protecting their-selves from possible dissonance. "Behavioural biases that speak against the rationality are as well: status quo bias, loss aversion regret avoidance or the sunk cost fallacy"[336]. Especially in the case of standardize contracts, information is disregarded as already known; in these cases, reading one standard form is considered as being sufficient as standard forms in case of such type of contract should not differ.

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[328] Article 5 UTD (*see supra note* 66), Article 7 CRD (*see supra note* 99), Article 8 CRD (*see supra note* 100).
[329] Preamble to the GDPR, Article 7 GDPR (*see supra note* 161). See also Article 12 GDPR, Article 34 GDPR.
[330] Article 7 UCPD (*see supra note* 82).
[331] Południak-Gierz, K. (2017). From Information Asymmetry to Information Overload-Technological Society of Consumers. *Contemporary issues of societal development*, 34.
[332] *Id*, 37.
[333] *Ibidem*.
[334] *Id*, 39.
[335] *Id,* 40.
[336] *Ibidem*.

Finally, individuals easily get distracted, especially in the online environment, where constant stimuli are presented to the users: "pop out windows, aggressive commercials, bond font, colour, movement, sounds, etc…- they are all constantly fighting to attract [their] attention"[337]. Further, studies have demonstrated that individual attention is span shorter: in 2000, Microsoft conducted a study measuring how long people can focus on one thing for a specific amount of time. The results showed the average person's attention span was 12 seconds. About 15 years later, it dropped to 8 seconds[338].

To sum up, information disclosure requirements and the principle of transparency tend to find limits in their practical application in the light of behavioural studies. This is a first emerging problem in consumer protection and data protection law.

2.2.2 The no-reading problem

Following the previous discussion on the limits of the information paradigm, specifically the information disclosure requirements, there is another problem concerning individuals that deserves attention: the *no-reading problem*. The latter implies that consumers seldom read the form contracts that firms offer. As pointed out by Schwartz and Ayres, consumers' failure to read occurs not only when consumers are rushed, but also when there is time[339].

People rarely read contracts they have to deal with, whether they are gym membership agreements or mutual fund prospectuses. As outlined by Kleimann Communication Group, Inc. in their work "Know Before You Owe: Post-Proposal Consumer Testing of the Spanish and Refinance Integrated TILA-RESPA Disclosures", individuals do not even read important parts of home mortgage agreements[340]. Additionally, Willet recognizes that "there is the basic disinclination to read detailed contract terms"[341].

The no-reading problem runs parallel to the information overload effect. As pointed out by Becher in a 2019 article, contracts tend to be complex. "While consumers have the legal burden to read their contracts, companies do not have a general duty to offer readable ones. As our research shows, most of them are incomprehensible"[342]. Individuals, both subject to cognitive limitations and attentional lack, end up giving their consent to online platforms and websites, as well as to accept contract terms, without being really aware of possible consequences.

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[337] Południak-Gierz, K. (2017). From Information Asymmetry to Information Overload-Technological Society of Consumers. *Contemporary issues of societal development*, 41.

[338] Booth, J. (2020, January 17). Visions for 2020: Key trends shaping the digital marketing landscape. Retrieved from [https://blogs.oracle.com/oracledatacloud/2020-trends-shaping-the-digital-marketing-landscape].

[339]Schwartz, A., & Ayres, I. (2014). The No-Reading Problem in Consumer Contract Law, *Stanford Law Review*, 546.

[340] Kleimann (Ed.). (2012). *Know Before You Owe: Post-Proposal Consumer Testing of the Spanish and Refinance Integrated TILA-RESPA Disclosures* (pp. 1-271, Rep. No. ND). Rockville, Maryland: Kleimann Communication Group. Presented to the Consumer Financial Protection Bureau, November 20, 2013. Available at [https://files.consumerfinance.gov/f/201311_cfpb_report_tila-respa_testing-spanish-refinancing.pdf].

[341] Willett, C. (2007). *Fairness in consumer contracts: The case of unfair terms*. Ashgate Publishing, Ltd., 59.

[342] Becher, S. (2019, February 4). Research shows most online consumer contracts are incomprehensible, but still legally binding. Retrieved from [https://theconversation.com/research-shows-most-online-consumer-contracts-are-incomprehensible-but-still-legally-binding-110793].

The central economic question, generated by the no-reading problem, is whether this imperfect information results in a market failure: "if buyers do not factor contract terms into their purchase decisions, sellers lack incentives to provide anything more than minimally required legal protections"[343]. Ben-Shahar in his 2009 work[344] argues that since nobody reads fine print, regardless of its accessibility, rules requiring increased disclosure are useless, if not dangerous.

As pointed out in section 1.4.1, standard-form contracts are widely used in Europe and the use of default rules is central in the EU contract discipline. However, "academics, courts, and policy makers have long debated the degree to which standard-form contracts should be enforced and whether their content or disclosure should be regulated. All sides in this debate realize that, in many circumstances, a majority of buyers do not read fine print"[345]. An interesting research conducted in this field is the one by Bakos, Marotta-Wurgler and Trossen, showing that individuals seldomly read standard-form contracts, often called fine print or boiler plate. They found that a little percentage of consumers chose to be informed about standard-form online contracts: "in particular, we estimate that the fraction of retail software shoppers who access EULAs [end-user license agreements] is between .05 percent and .22 percent, and most of the few shoppers who do access EULAs do not spend enough time doing so to have digested more than a fraction of their content"[346].

It follows that information disclosure and information paradigm finds an additional limit: individuals tend to not read contracts and to quickly accept their conditions, without really knowing what they are dealing with. As pointed out by Ayres and Schwartz, "the read-all-the-terms project is both normatively unattractive and descriptively unattainable"[347].

There is one relevant study, with this regard, to be acknowledged: the behavioural research "Testing of a Standardised Information Notice for Consumers on the Common European Sales Law"[348], carried out for the European Commission in 2013. According to the results of the research, normally consumers do not read notice of consumer rights in detail. "Half of consumers spend less than 6-7 seconds reading the Draft Notice and fewer than 15% view the Notice more than once. Only 32% of consumers scroll all the way to the end of the Draft Notice. Fewer than one in five respondents claim to have read the Draft Notice in full"[349]. It follows that only a minority benefits from disclosed information.

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[343] Bakos, Y., Marotta-Wurgler, F., & Trossen, D. R. (2014). Does anyone read the fine print? Consumer attention to standard-form contracts. *The Journal of Legal Studies*, *43*(1), 2.
[344] Ben-Shahar, O. (2009). The myth of the 'opportunity to read' in contract law. *U of Chicago Law & Economics, Olin Working Paper*, (415), 1-28.
[345]Bakos, Y., Marotta-Wurgler, F., & Trossen, D. R. (2014). Does anyone read the fine print? Consumer attention to standard-form contracts. *The Journal of Legal Studies*, *43*(1), 2.
[346] *Id*, 32.
[347] Schwartz, A., & Ayres, I. (2014). The No-Reading Problem in Consumer Contract Law, *Stanford Law Review*, 552.
[348] GALLUP – RAND – DECISION TECHNOLOGY – IFABS (Ed.). (2013). *Testing of a Standardised Information Notice for Consumers on the Common European Sales Law* (pp. 1-77, Rep. No. ND). Brussels, Belgium: THE GALLUP ORGANISATION, Europe. For the European Commission; Directorate-General Justice. Consortium Partners: RAND Europe, Decision Technology, Gallup Institute for Advanced Behavioural Studies.
[349] *Id*, 6.

Many solutions have been proposed to this problem, some of which reported by Ayres and Schwartz in their work[350], but no substantial one has already been found and implemented within the European framework.

2.2.3 Framing effect and the importance of how information is presented

As pointed out in paragraph 2.1, the way in which information is presented has a relevant impact on consumer's decisions and judgments. Individuals tend to be affected by the frame of situations, as well as by salient elements, that may function as anchors to make choices.

Kahneman in his work "Thinking Fast and Slow" shows the relevance of information framing with a simple example. Let's suppose we have to write a message we want our recipients to believe; "your message will be true, but that is not necessarily enough for people to believe that it is true. It is entirely legitimate for you to enlist cognitive ease to work in your favor, and studies of *truth illusions* provide specific suggestions that may help you achieve this goal"[351].

He proposes two statements to be compared:

Adolf Hitler was born in 1892.
Adolf Hitler was born in 1887.[352]

Figure 8

Both the two statements are false, but the experiments have shown that people are more likely to believe to the first one. A message printed on a high-quality paper to maximize the contrast between characters and their background, is more likely to be believed; alternatively, a message written with colours is more likely to be believed if the text is printed in bright blue or red than in middling shades of green, yellow, or pale blue. The way in which information is presented has direct consequences on individual's choice.

As already pointed out in section 2.1.4, framing effect, and, more generally speaking, the way in which the information is presented, has wide implications in marketing[353]. Research results showed that people are more willing to take risks when a choice is framed as avoiding a loss rather than as acquiring a gain.

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[350] Ayres and Schwartz recognize in their work that reform proposals are of two types: substantive and procedural. According to the first group, a public decision maker should decide whether the term is sufficiently conscionable to warrant enforcement. According to the second group of proposals (procedural ones), a court should reject the enforcement of a term if the firm knew or should have known that the reasonable consumer would not expect it; additionally, reforms of this group should focus on reducing the consumer's cost and effort of reading the term. The two authors have recognized that both the groups of proposals have proved to be unsuccessful, hence they have advanced a new proposal, that can be summarized into the "know thy costumer" duty, already in place with regard to brokers and other financial intermediaries. Basically, their approach encourages, from one side, the burying of expected terms, that represent the real focus for the consumer, and, secondly, a standardized form, namely "the unexpected term box", to alert consumers to unexpectedly unfavourable terms. Reducing the salience of expected terms, that make consumers distract from the other parts of the contract, and increasing the salience of unexpected terms, their aim is to promote a more informed consumer consent.
An additional solution has been proposed by Willet, in his work Fairness in Consumer Contracts; specifically, he proposes to standardize contract terms in substance, in order to ensure more overall transparency.

[351] Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux, 71.

[352] *Ibidem*.

[353] Hoyer, W. D., Pieters, R., & MacInnis, D. J. (2013). *Consumer behavior*. Mason, OH: South-Western Cengage Learning.

Furthermore, messages framed in terms of loss are more persuasive when consumers are in good mood, whereas messages framed in terms of gain are more persuasive when consumers are in a bad mood. Framing gains and losses also applies to buying and selling cases: when the outcomes are equally positive, buyers feel better about not losing money while sellers feel better about achieving gains. But when the outcomes are equally negative, buyers feel worse about losses while sellers feel worse about gaining anything.

Framing the time-period can affect decisions as well. Consumers react more positively when marketers frame the cost of a product as a series of small payments instead of as a large one-time expense.

Moreover, whether a decision is framed positively or negatively influences the evaluation differently: consumers are more likely to choose a brand with negatively framed claims about a competitor when elaboration is low (thinking fast with system 1), but higher elaboration (thinking slow with system 2) may lead them to conclude that the tactics being used are unfair.

Framing can be used by companies in order to push individuals toward defined choices. For instance, terms and conditions on online platforms can be presented in a way to induce users to select the most favourable option for the company and the less favourable for the individuals. This process, known as *market manipulation*, specifically in this case, as *digital market manipulation*[354], leads to many concerns from an ethical and a legal point of view. According to Hanson and Kysar, "the presence of unyielding cognitive biases makes individual decisionmakers susceptible to *manipulation* by those able to influence the context in which decisions are made"[355]. With the advent of Dark Patterns, that will be explored in chapter 3 of this analysis, individuals' manipulation on digital platforms has reached exponential levels.

The UCPD, in Article 6, as explained in chapter 1, prohibits misleading commercial practices, that contain false information and are therefore untruthful or in any way, including *overall presentation*, deceive or are likely to deceive the *average consumer*, even if the information is factually correct, in relation to one or more of the following elements, and in either case, cause or is likely to cause him to take a transactional decision that he would not have taken otherwise. Thus, it seems that there is an attempt, in contract discipline, to counteract, from a legal point of view, the manipulation deriving from framing. However, the main criticism of the UCPD is that it takes as a benchmark the average consumer, that, in the light of the behavioural study, finds some limitations in real scenarios, as explained in the following section.

2.2.4 The average consumer benchmark: limitations in the light of behavioural studies

As outlined in chapter 1, the UCPD, takes as a benchmark the average consumer, defined as "a reasonably well-informed and reasonably observant and circumspect individual taking into-account social, cultural and linguistic factor" [356].

[354] Calo, R. (2013). Digital market manipulation. *Geo. Wash. L. Rev.*, *82*, 995-1051.
[355] Hanson, J. D., & Kysar, D. A. (1999). Taking behavioralism seriously: The problem of market manipulation. *New York University Law Review*, 74, 105.
[356] Recital 18 UCPD.

This definition has been firstly provided by the CJEU in the Gut Springenheide case, in 1998. The CJEU has assumed a clear orientation in the assessment of the average consumer, that will be depicted and analysed in paragraph 2.3.

The European average consumer does not fully correspond to its legal construction. The benchmark assumed in the UCPD presents many shortcomings in the light of behavioural studies; individuals do not act as perfectly rational actors, capable to detect a wide range of information.

As underlined by Everson, "law proves to be too self-contained and too blunt an instrument to allow for the coherent translation of economic and political conceptions and constructions of the consumer into an integrated legal framework of regulation"[357]. Consumers do not have time and resources to absorb and process sufficient information for rational decision-making; it is unfeasible for consumers to invest all their intellectual, psychological and physical resources, so as their time to gather and elaborate information in a way that their choices can meet an *abstract economic notion.*

As already mentioned, individuals are particularly susceptible to *manipulation*, in other words to the utilization of cognitive bias to influence their perceptions and, thus, their behaviour. According to Hanson and Kysar, manufacturers exploit these shortcomings actively to shape consumer perceptions throughout the product purchasing context, in order to alter and minimize risk perceptions, and independently of government requirements. It follows that market manipulation has many implications for a broad range of legal issues, especially considering that rational actors are taken as a benchmark in the EU legal context.

Further, Incardona and Poncibò recognize that the average consumer definition doesn't take into-account *emotional factors* that often influence consumer behaviour. "Far from being a function of conscious reflection, human behaviour, in the form of commercial behaviour, is controlled by *unconscious factors* […]. Much of what consumers perceive, interpret, and respond to occur without them ever being consciously aware of their mental processes or behaviour"[358]. For instance, consumers are affected by *social influence*[359], by their *feelings* and may go through a *mood congruence effect.* According to the latter, the affective state of consumers, at the time when they process information, may affect their judgment. Specifically, the mood of consumers may affect the information processing that takes place prior to the product evaluation and, thus, impact on the outcome of this evaluation[360]. Hence, "consumers act, at least in part, emotionally and are often influenced by external factors, thus, they often ignore written warnings because they rely on explanations provided by human intermediaries who ostensibly possess relevant expertise"[361].

[357] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 35, cited from Everson, M. (2006). Legal constructions of the consumer. In F. Trentmann (Ed.), *The making of the consumer, knowledge, power and identity in the modern world* (pp. 99–121). Oxford, NY: Berg.

[358] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 33.

[359] Incardona and Poncibò stress out how social influence has an impact on purchasing decision, since many consumers acquire goods for their symbolic value and for the enhanced social status conferred by the visible ownership of certain goods.

[360] Bakamitsos, G. A., & Siomkos, G. J. (2004). Context effects in marketing practice: the case of mood. *Journal of Consumer Behaviour: An International Research Review*, *3*(4), 304-305.

[361] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 33.

To sum up, consumers detach from the average consumer model drafted in the EU legal framework. "Even well-informed consumers of a high intellectual and educational level, who would, at least in theory, be ideally suited for rational market behaviour, may often base their decisions on custom and feelings rather than on an analytical process"[362].

2.2.5 Additional consequences to the limits of information paradigm

As explained in the first chapter, consumer protection law, data protection law and competition law can be integrated into a larger holistic approach through the principle of fairness, that is declined in all these legal fields, in order to promote an effective data protection, in the light of new threats in the digital world.

The principle of fairness is strictly related to the principle of *transparency*, both in contract discipline and in data protection.

Taking into-account the former, transparency, as explained in the first chapter, is capable to generate a *virtuous cycle*[363]: transparency leads to greater consumer confidence, that is translated into improved competition, that leads to greater fairness and transparency. If there is a lack of transparency, due to abundance or complexity of information and in the light of cognitive limits, consumer confidence is undermined and competition within the internal market does not improve. As pointed out by Duivenvoorde, "if consumers are not protected effectively (or, more accurately, think that they are not protected effectively), this will prevent them from cross border shopping"[364]. If there is no improvement in competition, traders are not stimulated to make terms fairer in substance, hence there is no overall greater transparency and fairness. According to Ayres and Schwartz, "competition cannot cause firms to improve contract quality because consumers cannot shop comparatively for terms of whose existence they are unaware"[365].

Additionally, fairness is strictly related to transparency also in the field of data protection and, as outlined by Article 5 of the GDPR, personal data shall be processed lawfully, fairly and in a transparent manner in relation to the data subject. What makes data processing not only transparent, but *fairly transparent* is explained in recital 60 of the GDPR: a fairly transparent data processing requires that the data subject has an actual knowledge of the data processing concerning him/her and of its main characteristics. Basically, users shall be in a position to learn of the existence of data processing concerning them. The main problem is that, if individuals give their consent without being really aware of what they are dealing with and continuously accept conditions without reading the content of online contracts, the idea of fairly transparent data processing starts to show some limitations from a practical point of view.

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[362] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 35.

[363] Information disclosure and education (as a result of transparency) trigger a greater consumer confidence, in buying goods and services in Member States other than their own. This is translated into a more effective internal trade and into a stronger market integration. Improved competition, in turn, forces traders to make some terms fairer in substance, that leads to a greater transparency. See also Willett, C. (2007). Fairness in consumer contracts: The case of unfair terms. Ashgate Publishing, Ltd., 85.

[364] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 112-113.

[365] Schwartz, A., & Ayres, I. (2014). The No-Reading Problem in Consumer Contract Law, *Stanford Law Review*, 546.

Thirdly, the concept of fairness in competition law, as explained in chapter 1, is less clear than in other regimes and its role more generic. What matters is that fairness should enforce competition within the internal market.

However, if information disclosure finds some limits in the light of behavioural studies and the principle of transparency may be compromised, it seems difficult to attain a holistic approach for effective data protection, where fairness has the pivotal role to bring together the different legal fields. In other words, transparency represents a core requirement to trigger fairness within the internal market; with transparency at stake, this approach may find some difficulties in practical application.

Finally, as already explained, individuals also operate in the market, not as *domini* (i.e., not in a dominant position), but not even as *subiecti* (i.e., passive subjects in the marketplace). If the market is the ideal place of conflict, as well as the place where the various interests meet altogether, the interests of consumers must be considered as well. Without fair transparency, it is difficult to take into-account the substantial interests at stake in a specific data processing.

2.3 The average consumer benchmark in courts: orientation, possibilities and limitations

In chapter 1 there has been a reconstruction of the main cases that have led to the definition of the average consumer benchmark and, specifically, an analysis of the *Gut Springenheide* case. Additionally, the CJEU has recently started to apply the average consumer benchmark in the context of the UTD, despite there is no explicit reference to this benchmark within the Directive and the test of unfairness in the UTD differs from the test of unfairness in the UCPD.

The main approach of the CJEU has been to consider consumers adequately protected if they had the possibility to gather relevant information; however, as already drafted, the definition of the average consumer finds many limitations in light of behavioural studies and insights. The Court seems to have lost, in many cases, the opportunity to promote a more realistic approach when assessing misleading commercial practices, for instance in *Mars* Case, as will be further discussed, and to adequately protect consumers.

Further, as explained by Duivenvoorde[366], even the benchmark of vulnerable consumer, outlined in the UCPD, does not provide substantial solution for a more adequate consumer protection.

Only, in 2015, in *Teekanne* case, the CJEU took into-account a more realistic average consumer benchmark in evaluating the misleading nature of a commercial practice. This opens a discussion on the opportunities deriving from the integration of behavioural studies and insights within courts, in order to enhance a more effective consumer protection.

Nevertheless, the legal tools now available prove to be not enough for an adequate protection of consumers and users.

[366] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 195-210.

2.3.1 The average consumer benchmark: general orientation of the CJEU

The first definition of the average consumer has been provided by the CJEU in the *Gut Springenheide* case. The average consumer is "a reasonably well-informed and reasonably observant and circumspect individual"[367]. The CJEU has built this benchmark overtime, firstly applying it to cases involving the free movement of goods, labelling, and misleading advertising cases, and then transplanting it to trademark cases, from *Lloyd Schuhfabrik* case, in 1999. Recently, as will be explained in the following section, the CJEU has started to apply the average consumer benchmark to cases concerning B2C contracts, within the interpretation of the UTD.

The average consumer has been drafted as a knowledgeable, reasonable and attentive figure, in line with the *homo oeconomicus* of neoclassical economics. According to Incardona and Poncibò, "it seems that the ECJ relied upon the traditional law and economics analysis which suggests that consumers make decisions based on their anticipation of the expected outcomes of their decisions"[368]. Basically, consumers are considered as being rational actors capable to predict the probabilistic outcomes of uncertain decisions and to choose the option that maximizes their sense of well-being.

It follows that the CJEU has adopted an *optimistic,* even *myopic*, approach concerning individuals. Consumers are considered as being largely responsible for their own actions and decisions, hence, their potential responsibility in commercial practices would substantially rise, whereas the potential liability for companies would considerably diminish. Of course, this raises many questions in terms of the functioning of the internal market, where both consumers and companies are pivotal actors.

2.3.2 The average consumer benchmark and its application under the UTD

As outlined in chapter 1, the CJEU has recently started to apply the benchmark of the average consumer in the assessment of the transparency of standard terms and conditions under the UTD; specifically, the *Kásler* case is the first one where this transplant has taken place. The average consumer is taken as a benchmark in the UCPD, whereas there is no explicit reference to it in the UTD.

The UTD rules "non-individually negotiated" contract terms, namely standard contracts. It prohibits unfair terms through a general prohibition, under Article 3 of the Directive; a specific prohibition of non-transparent written terms, under Article 5 of the Directive and an indicative, grey list of unfair terms, that is non-exhaustive and is merely indicative, as explained in section 1.4.2, in the context of *Freiburger* case[369]. On the other hand, the UCPD covers all B2C commercial practices, before during or after a commercial

[367] Paragraph 31 *Gut Springenheide* case.
[368] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 30.
[369] See section 1.4.2.

transaction; the Directive does not contain a definition of "commercial transaction", but, according to Kersbilck, "it is safe to state that this concept is functionally equivalent to a "contract""[370].

The Directive prohibits unfair commercial practices through an exhaustive blacklist, under Article 5(5) read with Annex I Dir. 2005/29; it promotes a general prohibition of misleading or aggressive practices, under Article 5(4) read with Arts. 6-7 and 8-9 of the Directive. Finally, it contains a catch-all prohibition of unfair practices, under Article 5(2). While the UTD aims at minimum or partial harmonisation, the UCPD aims at full harmonisation.

From a general overview the two Directives present many divergencies. The first time in which the CJEU has expressed its opinion on the relation between the two directives, giving general guidelines for cases in which both the Directives find application, is in the context of the *Pereniĉová and Pereniĉ* case[371].

Briefly, the case had to deal with a Slovakian couple, Mr Perenič and Mrs Pereničová, that applied for a consumer loan and concluded a contract with SOS, a non-bank establishment. The contract indicated that the yearly interest rate for repayment (APR) would have amounted to 48.63%. However, upon further calculations by the court, it turned out that in practice the APR applied to the contract equalled 58.76%, since SOS did not include in its calculation some charges relating to the loan granted. The District Court recognized the unfairness of the contract term concerning the total cost and referred to the CJEU in order to assess the validity of the contract in place.

Specifically, it asked whether the scope of consumer protection under Article 6(1) of UTD was such as to make possible, where unfair contractual clauses are found in a consumer contract, to conclude that the contract as a whole is not binding on the consumer, if that is more advantageous to the consumer. Secondly, it asked whether the indication of a lower annual percentage rate of charge, in a "not individually negotiated" contract term, could be qualified as an unfair commercial practice. If that was the case, the Court finally asked whether the UCPD could have any impact on the validity of a credit agreement and on the achievement of the objectives in Articles 4(1) and 6(1) of the UTD.

The CJEU, answered to the District Court, coming up with 2 relevant insights concerning fairness and consumer protection.

First off, the European Court of Justice maintained that since the scope of the UTD is to fairly balance the interests of the two counterparts, namely the trader and the consumer, Article 6 of UTD could not be interpreted as meaning that, "when assessing whether a contract containing one or more unfair terms can continue to exist without those terms, the court hearing the case can base its decision solely on a possible advantage for the consumer of the annulment of the contract as a whole"[372]. The Directive seeks to restore the balance between

[370] Keirsbilck, B. (2013). The interaction between consumer protection rules on unfair contract terms and unfair commercial practices: Perenicova and Perenic. *Common Market Law Review*, *50*(1), 255.
[371] Available at [http://curia.europa.eu/juris/document/document.jsf?text=&docid=120442&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=938715].
[372] Paragraph 33 Pereniĉová and Pereniĉ case.

the parties while in principle preserving the validity of the contract as a whole, not in abolishing all contracts containing unfair terms.

Nevertheless, the ECJ recognized that, since the Directive aims at partial and minimum harmonisation of national legislation, Member States may adopt options that give consumers a higher level of protection than that for which the Directive provides; accordingly, Article 8 of the UTD[373] provide that Member States may "adopt or retain the most stringent provisions compatible with the Treaty in the area covered by the Directive, to ensure a maximum degree of protection for the consumer". National Courts need to consider whether performance of the contract without the contested provisions could still lead to the fulfilment of the parties' common interests that were expressed by them when concluding that particular contract. Within this context, what the Advocate General Trstenjak supported is that the validity of the contract should have been assessed, without grating a decisive role to the subjective criterion of the consumer's advantage in the continued existence of the contract; she favoured an assessment based on an *objective criterion*.

With reference to the second answer, the CJEU recognized that the commercial practice in the main proceedings fell within the scope of the UCPD, that applies to unfair business-to-consumer commercial practices before, during or after a commercial transaction relating to any goods or services. According to the Court, indicating in a credit agreement an APR lower than the real rate represented a false information as to the total cost of the credit; thus, the price was to be regarded as misleading within the meaning of Article 6(1)(d) of Directive 2005/29, insofar as it was likely to cause the average consumer to take a transactional decision that would not have taken otherwise. It is up to the national court to ascertain, that false information must be regarded as a 'misleading' commercial practice under Article 6(1) of the directive. [374].

As explained in the first chapter, "the CJEU in its more recent case law is less determined to decide a case on its own: general guidelines are given, but the final decision is left to the national court, which can take into account all relevant circumstances at hand"[375]. Likewise, in this context, with regard to the effect of this finding on the assessment of the unfairness of the terms of that contract from the point of view of Article 4 of UTD[376], "it must be observed that that provision gives a particularly wide definition of the criteria for making such an assessment by expressly including 'all the circumstances' attending the conclusion of the contract in question"[377]. The fact that a commercial practice is unfair under Article 6 is *one element among others* on which the competent national court may, under Article 4 of UTD, base its assessment of the unfairness of the contractual terms relating to the cost of the loan granted to the consumer. "Such finding, however, has not

[373] Article 8 UTD: Member States may adopt or retain the most stringent provisions compatible with the Treaty in the area covered by this Directive, to ensure a maximum degree of protection for the consumer.
[374] Paragraph 41 Pereničová and Perenič case.
[375] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 47.
[376] Article 4 UTD: 1. Without prejudice to Article 7, the unfairness of a contractual term shall be assessed, taking into account the nature of the goods or services for which the contract was concluded and by referring, at the time of conclusion of the contract, to all the circumstances attending the conclusion of the contract and to all the other terms of the contract or of another contract on which it is dependent. 2. Assessment of the unfair nature of the terms shall relate neither to the definition of the main subject matter of the contract nor to the adequacy of the price and remuneration, on the one hand, as against the services or goods supplies in exchange, on the other, in so far as these terms are in plain intelligible language.
[377] Paragraph 42 Pereničová and Perenič case.

direct effect on the assessment, from the point of view of Article 6(1) of Directive 93/13, of the validity of the credit agreement concluded"[378].

Article 6 of the Directive specifically states that an unfair contract term shall "not be binding" on the consumer; "the wording of Article 6 of the UCT Directive obliges the national court to examine whether the contract is capable of existing without the unfair contract terms that would be removed from it. This suggests that the rest of the contract could remain in force as long as the disproportion encumbering the consumer [is] removed"[379]. The position of the CJEU in this context is crystal clear: the test of unfairness applicable to commercial practices under UCPD is different from the test of unfairness applicable to contract terms within the scope of the UTD.

As outlined by the Advocate General Trstenjak "the finding of an unfair commercial practice can have no more than indirect effects on the assessment of the unfairness of a contractual term"[380]; additionally, according to Luzak[381], the presence of an unfair contract term does not directly imply that the contract is void.

What emerges from the in Pereniĉová and Pereniĉ case is that the main purpose of the UTD is to restore the balance between contractual parties and not to favour the consumer by giving him a more beneficial position than the one that equal parties usually have on the market. Despite the weaker party in contractual transactions is the consumer, the main idea of the Directive is to balance interests in place and, as outlined by Willet, the agenda under the fairness-oriented approach is to help consumers protect their substantive interests. This does not directly imply to give more advantage to the consumer.

While the UCPD aims at full harmonisation of national provisions, the UTD aims at minimum or partial harmonisation, leaving the national court free to adopt legal rules pursuant to which any contract which contains unfair contract terms should be declared void, in case such a legal effect would be more beneficial to the consumers. All the circumstances, in accordance with Article 4 of the UTD, shall be taken into-account. To sum up, the fact that a "not individually negotiated" term represents an unfair commercial practice under the UCPD is a circumstance among others to be taken into-account, but it has not direct implication on the validity of the contract in place.

Despite the CJEU has given fundamental clarifications with reference to the relation between the UCPD and the UTD in the Pereniĉová and Pereniĉ case, there has been no reference to the average consumer benchmark in relation to the UTD.

The first case in which the average consumer benchmark found application within the interpretation of UTD is the *Kásler* case, already drafted in chapter 1. In this occasion, the European Court of Justice seemed to suggest that the mere insertion of a contract term is not sufficient to inform the consumer and, especially in

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[378] Paragraph 47 Pereniĉová and Pereniĉ case.
[379] Luzak, J. (2012). Unfair commercial practice≠ unfair contract term≠ void contract: The CJEU's judgment in the case C-453/10 (Pereničová and Perenič). *Ars Aequi*, *61*, 430.
[380] Opinion of Advocate General Trstenjak, available at [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62010CC0453&from=EN], par. 125.
[381] Luzak, J. (2012). Unfair commercial practice≠ unfair contract term≠ void contract: The CJEU's judgment in the case C-453/10 (Pereničová and Perenič). *Ars Aequi*, *61*, 430.

the case of complex contracts, the consumer needs more than a technical standard contract term to understand its meaning and the consequences.

A year later, in 2015, the CJEU ruled the *Van Hove* case[382], along the same lines of the Kásler case. Briefly, the proceeding dealt with Mr Van Hove, that in 1998 applied for a health insurance with CNP assurances, covering loan repayments in case of inability to work. Subsequently to a period of health issues and inability to work, he was finally found able to work part-time, and CNP Assurances informed Mr Van Hove that, with effect from 18 June 2012, it would no longer cover his loan repayments. Mr Van Hove brought action against CNP Assurances; he declared that the terms of the contract between him and CNP Assurances, relating to the definition of 'total incapacity for work' and the conditions under which cover for that incapacity was acquired, were unfair. The CJEU, in this context, taking as a benchmark the average consumer[383], found that Article 4 of UTD must be interpreted:

> "as meaning that a term of an insurance contract intended to ensure that loan repayments payable to the lender will be covered in the event of the borrower's total incapacity for work falls within the exception set out in that provision only where the referring court finds: first, that, having regard to the nature, general scheme and the stipulations of the contractual framework of which it forms part, and to its legal and factual context, that term lays down an essential component of that contractual framework, and, as such, characterises it […]. Secondly, that that *term is drafted in plain*, *intelligible language*, that is to say that it is not only grammatically intelligible to the consumer, but also that the contract sets out *transparently* the specific functioning of the arrangements to which the relevant term refers and the relationship between those arrangements and the arrangements laid down in respect of other contractual terms, so that that consumer is in a position to evaluate, on the basis of precise, intelligible criteria, the economic consequences for him which derive from it"[384].

To conclude, according to Luzak, this transplant of the average consumer benchmark from the context of unfair commercial practices to unfair contract terms, without an actual legislative basis, "raises a question, whether the CJEU will now apply the benchmark of the average consumer to determine the scope of consumer protection across the whole *consumer acquis*"[385].

2.3.3 Myopic approach of the CJEU: the missed opportunity of a real average consumer benchmark

As briefly explained in section 2.3.1 the CJEU has embraced an optimistic, even myopic, approach in the assessment of commercial practices and in the evaluation of B2C contracts, when applying the average consumer benchmark. One of the first case in which the CJEU introduced this benchmark, promoting the idea of reasonably circumspect consumer, is the *Mars* case, already discussed in chapter 1. According to Stuyck[386],

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[382] Available at [http://curia.europa.eu/juris/document/document.jsf?text=&docid=163876&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=5866190].
[383] Paragraph 47 Van Hove case.
[384] Paragraph 50 Van Hove case.
[385] Luzak, J. (2016). Vulnerable travellers in the digital age. *J. Eur. Consumer & Mkt. L.*, *5*, 130.
[386] Stuyck, J. (2010). Setting the scene, chapter I. In H. Micklitz, J. Stuyck, E. Terryn, & D. Droshout (Eds.), *Consumer law: Ius commune casebooks for a common law of Europe* (pp. 1–68). Oxford: Hart.

this case can be considered as a general reference to illustrate the benchmark consumer in the Court's case law on the free-movement rules and consumer protection; additionally, Duivenvoorde recognize that "this is of the clearest and most specific examples of the expectations of the CJEU towards consumers"[387].

In this context the CJEU, in answer to the complaints toward the European-wide marketing promotion by Mars company, recognized that the prohibition of such marketing initiative could not be justified since "reasonably circumspect consumers may be deemed to know that there is not necessarily a link between the size of publicity markings relating to an increase in a product's quantity and the size of that increase"[388]. However, analysing the case from another perspective, it is possible to illustrate "how a potential change of the consumer concept in marketing law towards a benchmark that incorporates insights from behavioural science may affect the outcome of judgments in the area"[389]. Purnhagen and van Herpen published in 2017 an interesting study showing the opportunities emerging from behavioural consumer research in assessing the misleading nature of commercial practices. The focus of their research has been on the ECJ's Mars judgment.

The two authors firstly maintain that individuals are subject to *anchoring effect*: when making judgments they use to refer to a reference point or an anchor, that can be adjusted to the final decision. "In the Mars case, the bonus pack contains two potential anchors for the amount of extra volume that the package contains: the percentage provided on pack (a correct anchor) and the coloured part of the package area (an incorrect anchor)"[390]. Prior research has shown how individuals can be affected by incorrect or unreliable anchors even in the presence of more reliable ones. While the percentage of additional product is a numerical value and needs to be translated into a volume estimate to be indicative for consumers, the coloured area straight indicates a part of the packaging. Despite anchoring effects can take place with different modalities, "anchors in the same modality should be easier to use for people"[391]. In this case, the additional area on the package should lead to quick and fast judgments on the dimension of product, making individuals believe that the product is bigger than its actual dimensions.

The two authors, translating the Mars case into a practical experiment with coffee packages, demonstrate that actually the oversized area is capable to deceive consumers. "When estimating the additional volume visually, consumers estimate that the additional volume is larger when the package contains an oversized area than when it contains the correct area on package"[392]. When there was a correct anchor indicated on the package, but the coloured area was actually bigger, individuals still tended to overestimate the real dimension of the product. However, when the area on package correctly indicated 10% of the actual pack size, such an overestimation did not occur. This clearly shows how unreliable, but salient, anchors have a stronger effect

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[387] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 40.

[388] Paragraph 24 Mars Case

[389] Purnhagen, K. P., & van Herpen, E. (2017). Can Bonus Packs Mislead Consumers? A demonstration of how behavioural consumer research can inform unfair commercial practices law on the example of the ECJ's Mars Judgement. *Journal of Consumer Policy*, *40*(2), 219.

[390] *Id*, 221.

[391] *Ibidem*

[392] *Id, 228*.

than reliable, but less vivid, anchors. It follows that individuals in Mars case could actually be misled by the additional coloured part on the package, despite accurate information was correctly displayed on it.

Another case where it is possible to depict similar cognitive effects is the *Adolf Darbo* case, discussed in the first chapter. In this context, the CJEU reaffirmed the idea of reasonably well-informed consumer: "an average consumer who is reasonably well informed and reasonably observant and circumspect could not be misled by the term "naturally pure" use on the label simply because the jam contains pectin gelling agent whose presence is duly indicated on the list of its ingredients"[393]. The Court has referred to Darbo and Commission v Germany, stating that consumers interested in the composition of a product are expected to first read the list of ingredients."[394]

Nevertheless, as previously explained, consumers seldomly read additional indications on product packages, but rather tend to be affected by vivid elements that quickly attract their attention; in this case the use of the name "d'Arbo Naturrein" (i.e., naturally pure) is salient for consumers and is very likely to be associated to a natural product. As pointed out by Hoyer, Macinnis and Pieters[395], consumers form associative networks in their mind and go through *priming effect:* an increased sensitivity to certain concepts and association due to prior experience based on implicit memory. It occurs when a concept is activated by a stimulus and this activation influences consumers' associations, positively or negatively, outside of awareness. The same has been recognized by Kahneman in his work "Thinking Fast and Slow": "if you have recently seen or heard the word EAT, you are temporarily more likely to complete the word fragment SO_P as SOUP than as SOAP. The opposite would happen, of course, if you had just seen WASH. We call this a priming effect and say that the idea of EAT primes the idea of SOUP, and that WASH primes SOAP"[396]. In this case, the word "naturally pure" could recall a 100% natural product, despite the jam contained additives and pesticides.

In light of behavioural studies, it is relevant also to acknowledge the decisions of the CJEU in the *Yves Rocher* case[397]. Briefly, the company Yves Rocher sold mail order cosmetics in Germany, promoting them with the following slogan "save up to 50% and ore on 99 of your favourite Yves Rocher products". Alongside the pictures of the products, it was showed next to the crossed-out old prices, the new lower prices of those products, in large red characters. This practice was challenged by a German consumer organization in light of a national provision (German Act against Unfair Competition), stating that "it is particularly easy to deceive consumers, since they are generally not in a position to verify the comparison between the old and the new price"[398]. The CJEU answered that the practice was absolutely in line with European provisions and any national rule that prohibits such a marketing initiative limits the free movement of goods within the European

[393] Paragraph 22 Adolf Darbo case.
[394] Schebesta, H., & Purnhagen, K. P. (2016). The Behaviour of the Average Consumer: A Little Less Normativity and a Little More Reality In CJEU's Case Law? Reflections on Teekanne. *European Law Review (Forthcoming)*.
[395] Hoyer, W. D., Pieters, R., & MacInnis, D. J. (2013). *Consumer behavior*. Mason, OH: South-Western Cengage Learning.
[396] Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux, 59.
[397] Judgment of 18.5.1993 – Case C-126/91 (*Yves Rocher case*), available at [https://eur-lex.europa.eu/resource.html?uri=cellar:2d677123-38e9-4f83-8ddf-63e5c1b787d4.0002.03/DOC_2&format=PDF].
[398] Paragraph 14 Yves Rocher case.

market, going beyond proportionality requirements. "This fits the general tendency of the CJEU to prefer the consumer's access to information over general prohibitions of certain types of practices"[399].

The slogan promoted by Yves Rocher can be compared to the example of persuasive message presented by Kahneman in his work "Thinking Fast and Slow"[400]. The presentation of a message in a certain way can actually deceive consumers. Basically, what it is possible to depict here is a *framing effect* that has the capacity to manipulate consumers and their preferences.

Moving to the application of the average consumer benchmark within the scope of the UTD, the CJEU has stated that information on contract terms must be available before the conclusion of the contract. This is of fundamental importance to the consumer. In practice, this implies an obligation for the seller or supplier to provide the consumer with the contract terms before the conclusion of the contract, otherwise the consumer is not able to read the contract terms before entering into-it. Hence, the CJEU assumes that the consumer reads the terms of the contract if they are given to her before entering the contract and finds her adequately protected if all information is provided. "The underlying idea is that the consumer understands the contract terms if he reads them before the conclusion of the contract and, consequently, he can take a well-informed decision about entering into the contract. However, this idea is questioned, because in daily life a consumer does not read general terms"[401]. Additionally, as drafted in previous sections, not all information is valued the same by individuals. According to Hanson and Kysar, legislators should take account of the fact that "vivid and personal information will often be more effective than statistical evidence"[402], in order to avoid the pitfalls of overoptimism. Ayres and Shwartz, in their work on the no-reading problem, recognize that consumers focus only on salient elements within contracts. "Data show that consumers are aware of some contract terms but not others. For example, new car buyers know that the warranty does not last forever [...]. On the other hand, it is less clear that consumers would expect their mortgage to have a prepayment penalty term or a forum selection clause requiring them to sue in a distant jurisdiction"[403]. For instance, there are some relevant elements or terms within contracts of which consumers are aware; nonetheless, there are many others that remain obscure or unknown to the consumer. As a direct consequence, individuals may go through "term optimism", happening when they expect a contract to contain more favourable terms than it actually provides; the idea of Ayres and Schwartz is to bring salience to unknown or less vivid terms in contracts in order to counteract the no-reading problem.

However, the CJEU seems to have not taken into-account these fundamental findings on consumer behaviour when applying the benchmark of the average consumer, in cases concerning possible unfairness of contractual terms. In Kásler case, the CJEU adopted the standard of a "reasonably well informed and

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[399] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 35.
[400] See figure in note 96.
[401] Rutgers, J. W. (2014). Unfair Terms in Consumer Contracts. In S. Vogenauer, & L. Gullifer (Eds.*), English and European Perspectives on Contract and Commercial Law, Essays in Honour of Hugh Beale* (pp. 279-290). Hart Publising, 286.
[402] Hanson, J. D., & Kysar, D. A. (1999). Taking behavioralism seriously: The problem of market manipulation. *New York University Law Review*, 74, 106.
[403] Schwartz, A., & Ayres, I. (2014). The No-Reading Problem in Consumer Contract Law, *Stanford Law Review*, 551.

reasonably observant and circumspect" consumer for understanding of the consumer credit agreement provisions[404]. Despite adopting a consumer friendlier vision and promoting *effective* transparency requirements, the CJEU still took into-account a rational and knowledgeable consumer. Especially in the context of contractual agreements, consumers are subject to cognitive limitations and tend to not read contractual terms; again, it is possible to find the *transparency paradox*, outlined by Południak-Gierz.

Similarly, in Van Hove case, the Court applied the same benchmark, in spite of the complexity of the contract in place and despite of the particular vulnerability of the applicant that brought action against the health insurance association.

To conclude, Duivenvoorde recognizes that the objective to achieve a high level of consumer protection, widely promoted by EU institutions[405] and well-framed in the UCPD[406], conflicts with the benchmark applied by the CJEU and this tension becomes clear in three ways.

First off, "the average consumer benchmark presents shortcomings in terms of the objective to achieve a high level of consumer protection because of the fact that less than averagely informed, observant and circumspect consumers are not protected if the average consumer is not considered to be affected by the commercial practice"[407]. There are some commercial practices that are recognized as being misleading, fraudulent, or unfair by the consumers themselves, for instance most consumers would suspect that some deals are "too good to be good". Other practices that are unfair *per se* are reported in the annex or blacklist to the UCPD, among which it is possible to find pyramid schemes. However, there are many others that are clearly designed to mislead consumers and are not inserted into this blacklist either correctly condemned by the CJEU or other European Institutions. From the perspective of the aim of achieving a high level of consumer protection, they should be recognized, and consumers should be protected against them. Dark Patterns, that will be analysed in chapter 3, can be recognized as *online* commercial practices, clearly designed to mislead consumers; although, they have not been yet correctly addressed by the EU Institutions.

Secondly, "the CJEU in its case law on the average consumer benchmark has unrealistically high expectations of the average consumer"[408]. As already outlined, the CJEU has assumed an optimistic approach while assessing commercial practices or B2C contracts. "Behavioural studies have clearly shown that this image of a rational decision-maker is [highly] unrealistic"[409].

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[404] Paragraph 74 Kásler case.

[405] In chapter 1, in the reconstruction of consumer protection law, it has been outlined how EU institutions have always valued consumer protection in the construction of rules for the functioning of the internal market. Specifically, with the SEA (Single European Act), in 1986, a "high level of protection" toward consumers was finally recognized in Article 100A of the Treaty: "the Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will take as a base a high level of protection". High level of consumer protection, hence, has started to assume a central relevance within the EU legal framework and has been promoted both in primary and secondary law.

[406] Article 1 UCPD – Purpose: The purpose of this Directive is to contribute to the proper functioning of the internal market and achieve a high level of consumer protection by approximating the laws, regulations and administrative provisions of the Member States on unfair commercial practices harming consumers' economic interests. Also cited in recitals 1, 5, 20, 24.

[407] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 198.

[408] *Ibidem.*

[409] *Ibidem.*

Thirdly, shortcomings emerge from the approach of the CJEU since the average consumer benchmark assumes "typical" consumer behaviour. As it has been shown, "this idea ignores many factors that influence the decision-making process and cause numerous differences in the behaviour of different consumers"[410].

The average consumer benchmark, hence, presents significant shortcomings in relation to achieve a high level of consumer protection.

2.3.4 Vulnerable consumer benchmark: more protection for consumers?

The UCPD, in Article 5 and in recital 18, outlines the idea of particularly vulnerable consumers within commercial practices. Consumers are defined as particularly vulnerable because of their mental or physical infirmity, age or credulity in a way which the trader could reasonably be expected to foresee. Vulnerability shall be assessed from the perspective of the average member of that group.

The CJEU has, in some instances, promoted the benchmark of vulnerable consumers while assessing the possible unfairness of commercial practices. As outlined in chapter 1, the CJEU in the *Buet* case has taken as benchmark individuals who are below the educational level and tend to catch up, underlying that that element made them particularly vulnerable when faced with salesmen of educational material who attempted to persuade them that if they used that material, they would have gained better employment prospects.

According to Duivenvoorde, "vulnerable group benchmark [has] the potential, at least, in theory, to offer additional protection, and thus to close the gaps in protection created by the average consumer benchmark. In particular, vulnerable group benchmark was explicitly adopted for this purpose"[411].

On the basis of behavioural studies, every consumer face vulnerability while taking decisions and this vulnerability is not limited to certain groups. Heuristics or biases are *systematic* and cognitive mistakes are *structural* and common to all individuals. As pointed out by Incardona and Poncibò, "even if the vulnerable consumer were to be given serious in-depth consideration by traders in the planning of their commercial practices, many problems arise in defining who is to be considered a vulnerable consumer and what level of vulnerability can be ascribed to him or her"[412].

Further, the application of this benchmark is subject to requirements that, if followed, do not offer additional protection in many cases. Vulnerable group must be "clearly identifiable" and the affection of the group must be "reasonably foreseeable to the trader"[413]. This makes the benchmark of difficult application: it is characterized by *exceptional* nature, rather than a general one.

"This clarifies that the approach of the Directive of having a rather low general level of protection (i.e., the average consumer benchmark) in combination with specific additional protection for vulnerable groups

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[410] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 199.
[411] *Ibidem*.
[412] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 28.
[413] Article 5(3) UCPD.

[…] does not fully deal with the problem of *consumer vulnerability*"[414]. It follows that "the vulnerable consumer was introduced to lessen the rigidity of the average consumer test, but it lacks practical and logical foundations"[415].

Moving to the UTD, as already explained there is no reference to consumer benchmark. However, according to Luzak, "if the CJEU continues to apply the benchmark of the average consumer to other areas of consumer protection than protection against unfair commercial practices, it begs questions whether the alternative benchmark of the vulnerable consumer should be applied in other consumer acquis, as well"[416].

However, despite the application of a vulnerable consumer benchmark, in cases concerning the interpretation of the UTD, would be advisable, there have been no steps from the CJEU toward this direction. Specifically, the Van Hove case offered to the Court an opportunity to elaborate on the scope of protection of vulnerable consumers. In the case, indeed, the insurance provided to a consumer aimed at protecting him or her against the risk of a default on the mortgage loan payments due to the borrowers' incapacity for work. A commercial practice concerning the provision of such insurances seems to possibly affect most vulnerable consumers, namely consumers who might already have limited possibilities on the employment market, due to their age, or mobility, or their state of health, as well.

The CJEU has missed the opportunity to apply the vulnerable consumer benchmark in this occasion, preferring the application of the standard benchmark of the average consumer, "without considering the possibility that this contract could affect vulnerable consumer and thus standard would need to be adjusted"[417].

To sum up, additional protection to consumers, in light of the limitations of the average consumer benchmark, cannot be envisaged through the promotion of the vulnerable consumer benchmark, that finds limited application within unfair commercial practices and, up to now, any application within unfair contractual terms.

2.3.5 The *Teekanne* case: a first step toward a more realistic average consumer

Teekanne[418] may well be the first one in a series of judgment that understands the "average consumer" in a less normative way and opens to arguments about the real-world vulnerability levels of consumers.

In the case, the German company Teekanne produced a fruit tea, the packaging of which included depictions of raspberries and vanilla flowers, the indications "Früchtetee mit natürlichen aromen" (fruit tea with natural flavourings) and 'Früchtetee mit natürlichen aromen–Himbeer-Vanille-Geschmack' (fruit tea with natural flavourings – raspberry-vanilla taste) as well as a seal with the indication 'nur natürliche Zutaten' (only natural ingredients). The list of ingredients accurately stated that the fruit contained "flavouring with a

[414] Duivenvoorde, B. B. (2015). *The consumer benchmarks in the unfair commercial practices directive* (Vol. 5). Springer, 200.
[415] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 28.
[416] Luzak, J. (2016). Vulnerable travellers in the digital age. *J. Eur. Consumer & Mkt. L.*, *5*, 130, 5.
[417] *Id*, 6.
[418] Available at [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62014CJ0195&from=EN]

taste of vanilla" and "aromas with a taste of raspberry". The German Federal Union of Consumer Organisations and Associations brought action against Teekanne in view of the fact that the items on the packaging misled consumers, making them believe that in the tea there were vanilla/raspberry ingredient or at least natural flavouring.

The referring court recognized that, in light of recitals 6 and 8 in the preamble to Directive 2000/13[419], the labelling of the fruit tea and methods used were such as could mislead the purchaser within the meaning of Article 2(1)(a)(i) of that directive[420]. It asked to the CJEU whether indicating ingredients on the packaging that were not actually present in the list of ingredients breached Directive 2000/13/EC.

The CJEU firstly stressed the idea that the Directive aims to inform and protect the consumer, with the detailed labelling, in particular giving the exact nature and characteristics of the goods, therefore having to enable the consumer to make his choice in full knowledge of the facts. Consumers need to be provided with correct, neutral and objective information. Additionally, in order to assess the capacity of labelling to mislead, the national court must in essence consider the presumed expectations, taking into-account that labelling, "which an *average consumer* who is *reasonably well informed*, and *reasonably observant and circumspect* has, as to the origin, provenance, and quality associated with the foodstuff, the critical point being that the *consumer must not be misled* and *must not be induced to believe*, incorrectly, that the product has an origin, provenance or quality which are other than genuine"[421]. The average consumer indeed, in light of *Commission v. Germany* case and *Adolf Darbo* case, is expected to firstly read the list of ingredients.

Secondly, the CJEU recognized that the list of ingredients, even though correct and comprehensive, in some situations, may not be capable of correcting sufficiently the *consumer's erroneous or misleading impression* concerning the characteristics of a foodstuff that stems from the other items comprising its labelling[422]. It follows that "where the labelling of a foodstuff and methods used for the labelling, taken as a whole, give the impression that a particular ingredient is present in that foodstuff, even though that ingredient is not in fact present, such labelling is such as *could mislead* the purchaser as to the characteristics of the foodstuff"[423].

The Directive 2000/13/EC must be interpreting as precluding the labelling of foodstuff and methods used for the labelling from giving the impression that an ingredient even though it is not present and it is only depicted by pictorial or descriptive means on the packaging.

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[419] Recital 6 in the preamble Directive 2000/13/EC: The prime consideration for any rules on the labelling of foodstuffs should be the need to inform and protect the consumer. Recital 8 in the preamble Directive 2000/13/EC: Detailed labelling, in particular giving the exact nature and characteristics of the product which enables the consumer to make his choice in full knowledge of the facts, is the most appropriate since it creates fewest obstacles to free trade.

[420] Article 2(1)(a)(i) Directive 2000/13/EC: 1. The labelling and methods used must not: (a) be such as could mislead the purchaser to a material
degree, particularly: (i) as to the characteristics of the foodstuff and, in particular, as to its nature, identity, properties, composition, quantity, durability, origin or provenance, method of manufacture or production […].

[421] Paragraph 36 Teekanne case.

[422] Paragraph 40 Teekanne case.

[423] Paragraph 41 Teekanne case.

Schebesta and Purnhagen[424] maintain that Teekanne case represents a first step of the CJEU to recognize that individuals are subject to cognitive limitations and biases. Specifically, in Teekanne case, the company made use of the system 1 (fast) processing of individuals, communicating the message "this tea contains raspberry and vanilla by pictures". Since consumer's main attention is highly attracted by pictures, colours and visual elements and, additionally, considering the limited shopping time, images and descriptions have the potential to serve as vivid (unreliable) anchors, as in the case of Mars promotion. Indeed, individuals go through *anchoring effect*, as well as to what Schebesta and Purnhagen[425] have called *picture-superiority effect*, according to which visual elements vastly outperform textual element in influencing consumer decision-making, in line with to the so-called bottom-up attention, outlined in section 2.1.6.

"Intuitively or implicitly, the court seemed to rely on both of these effects when holding in para 40 of its judgment that "consumer's erroneous or misleading impression" resulting from the pictures on the pack (anchor) may not be sufficiently "corrected" by the correct list of ingredients (picture superior effect)"[426]. In some sense, the CJEU reflected and embedded behavioural science insights to decide on the benchmark of the average consumer.

What further emerges, is that "the CJEU approached the legal question exclusively through the lens of secondary legislation, and did not enter into a fundamental, Treaty-based, discussion of the internal market dimension"[427]. Specifically, it has taken a consumer-based perspective without analysing the business interests. The interest of the consumer is discussed in the light of the average consumer benchmark. In previous cases, among which the *Gut Springenheide* case, the *Mars* case and the *Adolf Darbo* case, the CJEU assumed the consumer as being quasi-obliged to read the list of ingredients in order to avoid the danger of being misled. Consequently, a correct list of ingredients was considered as being sufficient to protect consumers from misleading commercial practices, according to the labelling doctrine. Additionally, consumers have always been considered as knowledgeable. In *Adolf Darbo*, for instance, the labelling as 'naturally pure' was considered as being not misleading in the description of a strawberry jam containing the gelling agent pectin and traces or residues of lead, cadmium and pesticides, since the jam contains pectin gelling agent by default. In Teekanne case there is a first step toward an interpretation of the average consumer more inspired by real circumstances and behaviour.

However, the ultimate application still stays in the hand of the national court. "This means that the application of the average consumer test in the concrete case remains at national levels. In this sense, the judgment does not strengthen an EU basis of the interpretation of the average consumer very much"[428]. From one hand, the application of the test at a national level allows to accommodate differences between national

[424] Schebesta, H., & Purnhagen, K. P. (2016). The Behaviour of the Average Consumer: A Little Less Normativity and a Little More Reality In CJEU's Case Law? Reflections on Teekanne. *European Law Review (Forthcoming)*.
[425] Schebesta, H., & Purnhagen, K. P. (2016). The Behaviour of the Average Consumer: A Little Less Normativity and a Little More Reality In CJEU's Case Law? Reflections on Teekanne. *European Law Review (Forthcoming)*.
[426] *Ibidem*.
[427] *Ibidem*.
[428] *Ibidem*.

consumer cultures, as outlined in chapter 1, in the context of *Graffione* case. On the other hand, the risk is to have a fragmented average consumer test within the EU legal framework.

Nevertheless, the *Teekanne* case leaves the door open for a possible integration of behavioural studies and insights within courts, promoting a sort of behavioural dimension in courts.

2.4 Available legal tools are not enough: conclusions and remarks

What emerges from this analysis is that, despite the EU institutions have tried to build a coherent and strong system for consumer protection, on one hand, and for data protection, on the other, they also have assumed an optimistic orientation concerning individuals and their behaviour.

First off, one central criticism is represented by the principle of transparency: information disclosure as a tool to promote this principle may not be effective in light of behavioural studies and, as outlined by Południak-Gierz, it is possible to depict a *transparency paradox*. Individuals seldomly read indications, contracts (online and offline), labels and so on; additionally, they go through an information overload effect, easily becoming distracted by visual, salient and/or vivid elements within the environment in which the decision-making process takes place. Transparency is a core principle within the European legal framework, as it is capable to foster and reinforce *fairness* within the internal market. The main idea of primary and secondary law tools is to fairly balance interests of the parties acting in the market, specifically consumers and traders in the traditional market, and users and professionals in the digital market. Without effective transparency, it seems difficult to achieve this fair balance.

Additionally, the CJEU has promoted in many instances a myopic approach, with the only exception of *Teekanne* case, in which it considered consumers properly protected only if not misled by visual images or descriptions on the package conflicting with the actual ingredients of the product.

With the advent of digitalization, as explained in the first chapter, there has been an increase of commercial behaviour exploiting the growing information and power asymmetries between consumers and firms[429], among which Dark Patterns, that will be explored in chapter 3 of this analysis. In light of the approach assumed by the EU Institutions up to now, it seems difficult to achieve more effective protection for individuals in the digital market, in other words *more effective data protection*.

Data and consumer protection, as already explained, represent two sides of the same coin: in most of the juridical relationships, the consumer and the data subject are indeed the same person; for instance, in electronic commerce, they act in very similar situations: "they interact on the computer, rather than in a physical space, they stipulate contracts with a counterpart who has more information that they do and who deals with a

[429] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 200.

multitude of subjects online"[430]. Consumer and data protection cannot work independently one to another and are strongly related to competition law.

In a *fairness-oriented holist approach* to achieve a higher data protection, these three systems work together, a fortiori that, in order to have a proper functioning of the internal market and an improved competition, *consumer confidence* must be promoted in order to trigger cross-national trade. To do so, legal tools must be correctly addressed for an effective consumer and data protection.

As explained in the first chapter, recently, EU Institutions have tried to address the problem of safeness of the digital market, as well as to establish a level playing field to foster innovation, growth, and competitiveness, both in the European Single Market and globally, with the new proposals of the Digital Services Act and the Digital Market Act. "A core concern is the trade and exchange of illegal goods, services and content online. Online services are also being misused by manipulative algorithmic systems to amplify the spread of disinformation and for other harmful purposes. These new challenges and the way platforms address them have a significant impact on fundamental rights online"[431]. The idea is to call for more fairness, transparency and accountability for digital services' content moderation processes, ensuring that fundamental rights are respected, and guaranteeing independent recourse to judicial redress[432].

Nevertheless, the process is still underway and, as will be explained in next chapter, it seems difficult, with the instruments now available, to correctly address new threats within the digital market, so to fairly balance the interests in place.

[430] Ratti, M. (2018). Personal-Data and Consumer Protection: What Do They Have in Common?. In *Personal Data in Competition, Consumer Protection and Intellectual Property Law* (pp. 377-393). Springer, Berlin, Heidelberg.

[431] European Commission (Ed.). (2021, January 19). The Digital Services Act package. Retrieved February 26, 2021, from [https://ec.europa.eu/digital-single-market/en/digital-services-act-package].

[432] Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC, available at [https://ec.europa.eu/digital-single-market/en/news/proposal-regulation-european-parliament-and-council-single-market-digital-services-digital].

CHAPTER 3

An empirical analysis on Dark Patterns: exploring the moderating role of education and digital literacy on the relation between the employment of different Dark Patterns in online environment and individual trust.

3.1 Dark Patterns: introduction

Recently, there has been an increasing interest from researchers and academics, especially in the legal field, toward the so-called Dark Patterns. This term was firstly coined in 2010 by Brignull to describe user interface design patterns that "are crafted with great attention to detail, and a solid understanding of human psychology to trick users into [do]ing things they wouldn't otherwise have done. This is the dark side of design, and since these kind of design patterns don't have a name, I'm proposing we start calling them Dark Patterns"[433]. Businesses operating within the online environment are increasingly employing the use of Dark Patterns in order to invoke a particular behaviour, or, in other words, to push individuals to take certain decisions, for instance, give their consent, accept conditions, buy products or services. Accordingly, one recent study by Mathur analysed 53,000 different product pages across 11,000 different online shopping sites and found 1,818 instances of dark pattern usage[434]. Additionally, in 2020, Nouwens et al. analysed the most prevalent consent management platforms (CMPs) and the way they impact people's consent choices; they were able to find that dark patterns and implied consent are ubiquitous; only 11.8% meet the minimal requirements of European Law, specifically the GDPR[435].

Dark Patterns have received attention from scholars, jurists, and policy makers since they generate important shortcomings in the current consumer and data protection disciplines, opening debates on how to possibly regulate these digital designs[436].

3.1.1 Dark Patterns: definition and conceptual framework

Dark Patterns are nothing new. Dark Patterns find their origin in analogous commercial practices that take place within the offline environment. According to Calo, businesses leverage what they know about human psychology "to set prices, draft contracts, minimize perceptions of danger or risk, and otherwise attempt to

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[433] Brignull, H. (July 8, 2010). Dark Patterns: Dirty Tricks Designers Use to Make People Do Stuff, *90 PERCENT OF EVERYTHING*. Retrievable at [https://www. 90percentofeverything.com/2010/07/08/dark-patterns-dirty-tricks-designers-use-to-make-people-do-stuff/] [https://perma.cc/T8KY-PRVC].

[434] Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 1-32.

[435] Nouwens, M., Liccardi, I., Veale, M., Karger, D., & Kagal, L. (2020, April). Dark patterns after the GDPR: Scraping consent pop-ups and demonstrating their influence. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*(pp. 1-13).

[436] Rieger, S., Sinders, C. (May 2020). Dark Patterns: Regulating Digital Design - How digital design practices undermine public policy efforts & how governments and regulators can respond. *Stiftung Neue Verantwortung*. Think Tank at the Intersection of Technology and Society. Retrievable at [https://www.stiftung-nv.de/sites/default/files/dark.patterns.english.pdf].

extract as much as possible from their consumers"[437]. For instance, businesses in home remodelling do not reveal their prices to homeowners over the phone, but rather they prefer to send a salesperson who can talk the potential customer through objections. Tricks based on behavioural insights and cognitive bias are continuously leveraged by companies to generate revenues from customers.

Basically, Dark Patterns consist in online information designs set to elicit a specific consumer's response. As explained in the second chapter, the way in which information is framed can have a great impact on individuals' judgments and impressions. Accordingly, Hurwitz, from one side, and Strahilevitz and Luguri, from the other, recognize that user interfaces can act as *nudges* to stimulate specific behaviours.

The term nudge was first coined by Thaler and Sunstein in 2008; they defined it as "any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not *mandates*. Putting fruit at eye level counts as a nudge. Banning junk food does not."[438] Soman, in a later work[439], maintains that the nudging, or choice-architecture, approach, represents a powerful strategy to address cognitive bias; specifically, it consists into a careful scanning and redesigning of the context in which the decisions are made so that the environment at best steers people toward what they really want to do and at worst doesn't let them stumble and fall.

In case of information design, Hurwitz distinguishes good-effect designs (*nudges*) from bad-effect designs (*sludges*, as defined by Strahilevitz and Luguri[440]) or, in other words, Dark Patterns. One prominent example of the first category is represented by the "Apple Tax": "the price premium that Apple is able to charge for its products compared to similar-quality products from other components"[441]. Other exemplifications of good-effect design can be retrieved in all the mobile apps that stimulate individuals to keep a healthy lifestyle. In this case, the company operates taking into-account the individual's best interest.

Conversely, Dark Patterns represent behavioural interventions that do not have the individual's best interest in mind, given that they intentionally aim at confusing users, making it difficult for them to express their actual preferences or manipulating them into taking certain actions. "They typically prompt users to rely on System 1 decision-making rather than more deliberate System 2 processes, exploiting cognitive biases like framing effects, the sunk cost fallacy and anchoring"[442].

With the advent of digitalization, businesses operating within the online environment have taken advantage of a few key behaviours of imperfectly rational humans to present offers and information. Specifically, they have made use of A/B testing in order to find out which design decision leads to which change in behaviour, "whether it is to determine which website structure, colour design or choice of words are

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[437]Calo, R. (2013). Digital market manipulation. *Geo. Wash. L. Rev.*, *82*, 1001.
[438] Sunstein, C. R., & Thaler, R. H. (2014). *Nudge: Improving decisions about health, wealth, and happiness* (p. 320). Penguin Books.
[439] Soman, D. (2015). *The last mile: Creating social and economic value from behavioral insights*. University of Toronto Press, 185-187.
[440] Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 43-109.
[441] Hurwitz, J. (2020). Designing a Pattern, Darkly. *NCJL & Tech.*, *22*, 76.
[442]Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 44.

particularly effective in improving user-friendliness, increasing the time users spend on the site, or simply generating more clicks"[443]. Additionally, companies have started to notably invest in UX/UI (User Interface Designs) designs, since they are capable to easily serve users' requests and facilitate online experience. The employment of UX design and A/B testing is translated into a growth for the online economy.

According to Hurwitz[444], *design* represents a controversial and complex issue. Firstly, design is *complicated*, to the extent that it represents just an element within a highly interconnected system, in which changes to any one of those parts can affect other parts, often in unexpected and hard to understand ways. It follows that it is almost impossible to design an interface capable to accommodate any given set of user preferences and system requirements perfectly.

Secondly, design is *ambiguous*: its effects are unpredictable. One interesting example comes from "nudges" promoted in UK to encourage individuals to register as organ donors; despite efforts made by the UK government to define suitable nudges aiming at this purpose, "none of these approaches was as successful as the best alternatives at persuading people to sign up"[445]. Additional studies on cigarette packaging[446] demonstrates that information design may have mixed effects.

Despite relevant improvement in user interface designs and related benefits both for the growth of the digital economy and facilitated user experience, Rieger and Sinders recognize that the intensive commercial use of these techniques presents also clear negative side effects: "as digital products are increasingly optimized to quickly attract as many customers as possible, increase sales or maximize the time spent on platform, this has also led to the proliferation of surfaces that, from the company's point of view, serve their purpose, but at the same time bring disadvantages for consumers"[447]; for instance, deactivating privacy-intrusive features, such as facial recognition, is much more difficult than their activation.

Additionally, Hurwitz recognizes that beside the presence of good-end designs, the digital environment presents many designs with bad-end intentions, aiming at misleading or confusing users. Accordingly, previous research by Mathur et al. found a wide employment of Dark Patterns within the digital environment[448].

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[443] Rieger, S., Sinders, C. (May 2020). Dark Patterns: Regulating Digital Design - How digital design practices undermine public policy efforts & how governments and regulators can respond. *Stiftung Neue Verantwortung*. Think Tank at the Intersection of Technology and Society. Retrievable at [https://www.stiftung-nv.de/sites/default/files/dark.patterns.english.pdf].

[444] Hurwitz, J. (2020). Designing a Pattern, Darkly. *NCJL & Tech.*, *22*, 57.

[445] Harford, T. (2014). Behavioural economics and public policy. *Financial Times*.
Retrieved from [https://www.ft.com/content/9d7d31a4-aea8-11e3-aaa6-00144feab7de#comments-anchor].

[446] Studies on Graphic Warning Labels (GWLs) have proven that there are mixed effects of these labels on cigarettes packaging on individuals' intention to stop smoking. A research by Van Dessel et al. was able to show that GWLs produce no effect on purchasers of cigarettes, including among daily-, occasional-, and non-smokers, and may even increase daily- and occasional smokers' positive attitudes towards smoking. Van Dessel, P., Smith, C. T., & De Houwer, J. (2018). Graphic cigarette pack warnings do not produce more negative implicit evaluations of smoking compared to text-only warnings. *PloS one*, *13*(3), e0194627.

[447] Rieger, S., Sinders, C. (May 2020). Dark Patterns: Regulating Digital Design - How digital design practices undermine public policy efforts & how governments and regulators can respond. *Stiftung Neue Verantwortung*. Think Tank at the Intersection of Technology and Society. Retrievable at [https://www.stiftung-nv.de/sites/default/files/dark.patterns.english.pdf].

[448] "Analyzing ~53K product pages from ~11K shopping websites, we discover 1,818 dark pattern instances, together representing 15 types and 7 broader categories" - Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 1-32.

To conclude, Dark Patterns are capable to generate a real market manipulation, or, using the definition given by Calo, a "*digital market manipulation*", that is essentially nudging for profits[449].

3.1.2 Employment of Dark Patterns: some exemplifications

According to Hurwitz, research on Dark Patterns is still in its infancy. The first contribution to Dark Patterns literacy was given in 2010 by Brignull, who gave a definition of Dark Patterns (i.e., design patterns that are crafted with great attention to detail, and a solid understanding of human psychology to trick users into [do]ing things they wouldn't otherwise have done) and provided a first taxonomy on Dark Patterns, distinguishing "Bait and Switch" ("the user sets out to do one thing, but a different, undesirable thing happens instead"[450]) and "Confirmshaming" ("using shame tactics to steer the user into making a choice"[451]).

Later, in 2010, Conti and Sobiesk expanded Brignull's original definition and classification, creating for the first time a suitable taxonomy of malicious interface design techniques, whose designers "deliberately violate usable design best practices in order to manipulate, exploit, or attack the user"[452]. Their taxonomy is composed by 11 categories[453], some subcategories and representative instances.

More recently, in 2016, Bösch et al.[454] further explored Dark Patterns, presenting a similar, alternative breakdown of privacy-specific dark patterns, distinguishing *Privacy Zuckering* (i.e., dark strategies that deliberately confusing jargon and user-interfaces), *Bad Defaults* (i.e., default options chosen badly in the sense that they ease or encourage the sharing of personal information), *Forced Registration* (i.e., forcing a user to sign up when she wants to use some functionality of a service), *Hidden Legalese Stipulations* (i.e., long and written in a complicated legal jargon terms and conditions, required for consent by law, that most users do not read), *Immortal Accounts* (i.e., preventing users from deleting their account or making it more difficult; further, the service provider might trick the user in the deletion process by pretending to delete the entire account, while still retaining some account data), *Address Book Leeching* (i.e., storing the list of all contacts of the individual as internal data records for further processing, including purposes that have not been initially declared) and *Shadow User Profiles* (i.e., service provider collecting information and keep records about

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449 Calo, R. (2013). Digital market manipulation. *Geo. Wash. L. Rev.*, *82*, 1001.

450 Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 4.

451 *Ibidem*.

452 Conti, G., & Sobiesk, E. (2010, April). Malicious interface design: exploiting the user. *In Proceedings of the 19th international conference on World wide web* (pp. 271-280), 271.

453 "*Coercion* (threatening or mandating the user's compliance); *confusion* (asking the user questions or providing information that they do not understand); *distraction* (attracting the user's attention away from their current task by exploiting perception, particularly preattentive processing); *exploiting errors* (taking advantage of user errors to facilitate the interface designer's goals); forced work (deliberately increasing work for the user); *interruption* (interrupting the user's task flow); *manipulating navigation* (creating information architectures and navigation mechanisms that guide the user toward interface designer task accomplishment); *obfuscation* (hiding desired information and interface elements); *restricting functionality* (limiting or omitting controls that would facilitate user task accomplishment); *shock* (presenting disturbing content to the user); *trick* (misleading the user or other attempts at deception)" Conti, G., & Sobiesk, E. (2010, April). Malicious interface design: exploiting the user. *In Proceedings of the 19th international conference on World wide web* (pp. 271-280), 272.

454 Bösch, C., Erb, B., Kargl, F., Kopp, H., & Pfattheicher, S. (2016). Tales from the dark side: Privacy dark strategies and privacy dark patterns. *Proceedings on Privacy Enhancing Technologies*, *2016*(4), 248-252.

individuals that do not use the service. For instance, in social networks, the social graph can be supplemented with persons that are not members of the network but are known to the network based on data from members, through imported address books, content metadata or mentions).

In 2018, Gray et al. expanded the categorization of Brignull's taxonomy and "collapsed many patterns into categories such as 'Nagging' (repeatedly making the same request to the user) and 'Obstruction' (preventing the user from accessing functionality)"[455].

In 2019, Mathur et al., starting from a relevant research gap, namely the absence of a large-scale evidence documenting the presence and prevalence of dark patterns in the wild, collected data from a random sample of 500 websites from a list of 361K websites, which they manually labelled as 'shopping' (if it was offering a product for purchase) or 'not shopping'. Then they evaluated the performance of both classifiers against this ground truth. They were able to discover 1,818 instances of dark patterns from 1,254 (∼11.1%) websites in their data set of 11K shopping websites[456] and, through additional analyses, they were able to build a relevant taxonomy on most employed Dark Patterns, comprising 7 macro categories (sneaking, urgency, misdirection, social proof, scarcity, obstruction, forced action).

In 2020, a relevant contribution to Dark Patterns classification was given by Strahilevitz and Luguri; specifically, they were able to build a useful taxonomy, that summarizes all the existing exemplifications and taxonomies of Dark Patterns and present the most frequently employed categories of these digital designs (see APPENDIX A).

One prominent category is represented by *nagging*, that consists in repeated requests to do something businesses prefer. A relevant exemplification comes from signing up for notifications: sometimes users are presented only with the options "yes" and "not now", only to be asked again about signing up two weeks later when they select.

Secondly, it is possible to retrieve a category of Dark Patterns that goes by the name of *social proof*, basically "misleading notice about other consumers' actions"[457]; "we observed two types of the Social Proof dark pattern: Activity Notifications and Testimonials […]. In all these instances, the Social Proof messages indicated other users' activities and experiences shopping for products and items"[458]. With reference to this UIs, Mathur et al. recognize that they are capable to exploit the *bandwagon effect*, that basically consists on the fact that people do something primarily because other people are doing it, regardless of their own beliefs. Accordingly, individuals tend to be highly influenced by peer pressure and social reference, or in other words by others' judgments and expectations[459].

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[455] Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 4.
[456] *Ivi*, 11.
[457] Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 53.
[458] Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 18.
[459] Bicchieri and Dimant in their work "Nudging with Care: The Risks and Benefits of Social Information" (2019). The two authors recognize that individuals are influenced by 4 types of behaviour, organized according to 4 characteristics: independent/interdependent and empirical/normative. In the context of this analysis what matters are the so-called social norms: individuals have a certain preference of behaviour because they expect the others to follow that behaviour and they believe that they should comply with that behaviour as

Thirdly, many Dark Patterns belong to the *obstruction* category: they all aim at making more difficult the online experience for the consumer, either through an *asymmetry* between signing up and cancelling or through *cost obscurity*. These UIs are powerful nudges because they exploit individuals' dual processing, specifically system 1 and preference for mental simplification over more complex computation. One pivotal exemplification comes from price comparison prevention: online businesses may employ different unit price for the sold items (e.g., groceries with online business).

Fourthly, it is possible to identify the *sneaking category* of Dark Patterns: all these digital designs lead to undesired effects or consequences for the consumer; for instance, the consumer finds in her cart an item that she didn't select, or, alternatively, she deals with obscured costs, disclosed only later in the transaction (e.g., delivery charges, tax, etc). In this case, Mathur et al. recognize that the exploited cognitive bias is *sunk cost fallacy*[460], to the extent that individuals do not want to give up already invested resources, whether time or money, hence they are stimulated to conclude the already started transaction. One extreme example of a sneaking Dark Pattern is the one presented below: here the consumer has in her cart automatically added items, that she can remove only in deliberative way.

[461]

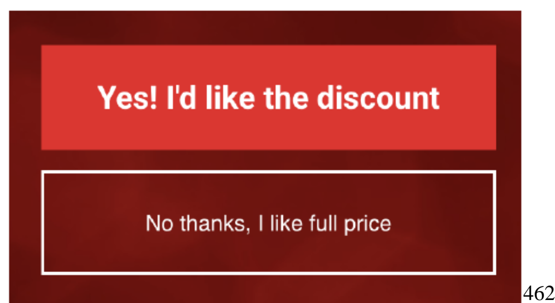
Moving further, Strahilevitz and Luguri discuss about *interface interference* category, comprising all Dark Patterns that intrusively manipulate consumers' choices; a digital design from this category, that has been

well; both empirical and normative expectations matter. Individuals perceive peer pressure and conform to commonly accepted behaviours.

[460] Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 12.

[461] Brignull, H. (n.d.). SNEAK INTO BASKET. Retrieved May 18, 2021, from [https://www.darkpatterns.org/about-us].

experimentally studied by the two authors, is represented by *confirmshaming*, consisting in "using language and emotion (shame) to steer users away from making a certain choice", Mathur et al. recognize that this Dark Patterns exploits *framing effect*, specifically stressing *loss aversion* in case of refusal of the offer. Here below a clear example of a design employing *confirmshaming*.



[462]

An additional example of Dark Patterns belonging to interface interference category is the so-called *preselection*, according to which the firm-friendly default is preselected. Default options are widely employed both by policy makers, as well as by companies; many authors have recognized the effectiveness of opt-in designs as nudges to stimulate an individual behaviour or response. They all leverage the *status quo* bias, already discussed in this analysis, according to which individuals prefer the current state of affairs, resulting in resistance to change.

Further, Strahilevitz and Luguri outlined the category of *forced action*: in this case, individuals are given the impressions that the registration to a website is necessary to conclude the transaction.

Finally, it is possible to depict an *urgency category*: UIs that are capable to make individuals believe that limited quantities of a product are available, increasing its desirability. Alternatively, information designs may be accompanied by timers, in order to stimulate immediate purchase, or by notifications and signals indicating high demand for that product or service (e.g., messages and notifications about high demand for hotel reservation).

This section presents just a bite of the exponential phenomenon of Dark Patterns, that, are continuously depicted in different forms within the online environment.

3.1.3 Regulating Dark Patterns: analysing the effectiveness of a fairness-oriented holistic approach

Regulating Dark Patterns represents a complex issue. Hurwitz, in his work, stresses the idea according to which "given the complexity of design, there is reason to prefer to rely on the marketplace to address the concerns raised by dark patterns— particularly given that this market-based approach appears to be working"[463]. Additionally, he maintains that existing law tools are sufficient to address Dark Patterns problem.

[462] Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 16.

[463] Hurwitz, J. (2020). Designing a Pattern, Darkly. *NCJL & Tech.*, *22*, 93.

In line with this consideration, Graef et al. maintain that "before considering the introduction of new legal frameworks to remedy concerns caused by digitization in line with calls for, for instance, the regulation of online platforms or algorithm accountability, attention should be paid to how existing regimes can be applied to cope with new forms of commercial behaviour"[464].

The European Parliament seems to embrace the same perspective. Specifically, in 2019, Ms Jourová, on behalf of the European Parliament, answered some questions within the context of Dark Patterns[465], that were presented as follows:

> "the […] GDPR requires that websites offer consumers a way to opt out of their cookies and other tracking devices. This has led to a huge increase in the number of lengthy, legal-sounding texts presented to consumers before they are given an opt-out option, or to misleading wordings of the opt-out option itself. For example, one major company has a statement that reads: 'signed-out search activity is off', which would imply that users can opt-out; a claim nevertheless contradicted by the beginning of that self-same sentence. These practices are often referred to as 'dark patterns'. Is the Commission aware of such dark patterns? What action can it or Member States take against such misleading or dissuasive measures? Does it regard these practices as legal under current legislation, including the Unfair Commercial Practices Directive?"[466].

The European Parliament gave an answer to those questions, firstly underling that the term 'dark pattern' is not legally defined; secondly, it referred to the ePrivacy Directive, to the GDPR and to the UCPD as main legal tools to address these online commercial practices.

Specifically, data processing and storing of information shall take place only if the data subject has explicitly given her consent (i.e., freely given, specific, informed, and unambiguous by a clear affirmative action signifying agreement to the processing of personal data); if consent is given basing on misleading information, the consent shall not be valid. Further, Article 7 of the GDPR requires that the request for consent shall be presented in a manner which is clearly distinguishable from other matters, in an intelligible and easily accessible form, using clear and plain language; withdrawing consent should be as easy as giving it.

Additional protection comes from the UCPD, that prohibits misleading commercial practices; if a consumer is misled by false or deceptive information to take a transactional decision, she would not have taken otherwise (such as buying a product), national authorities or courts may regard this as an unfair commercial practice under this Directive.

Moreover, according to the European Parliament, the EU law prohibits specific practices, such as using pre-ticked boxes (under the CRD), describing a product as 'free' if the consumer has to pay for it, making it difficult to unsubscribe after a free trial period and 'baiting and switching' (under the UCPD).

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[464] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 223.

[465] European Parliament (2019). *Answer given by Ms Jourová on behalf of the European Commission*. Parliamentary Questions.Available at [https://www.europarl.europa.eu/doceo/document/E-8-2019-000774-ASW_EN.html].

[466] European Parliament (2019). *Dark patterns and other misleading options on websites*. Parliamentary Questions. Available at [https://www.europarl.europa.eu/doceo/document/E-8-2019-000774_EN.html].

Finally, data subjects or consumers who have been misled can submit complaints to the relevant authorities or bodies in the Member States tasked with the enforcement of the GDPR or the UCPD, or bring claims to national courts, either individually or collectively.

Starting from these considerations, it is interesting to present the recent work by Leiser[467], that analyses the possibilities of a regulatory pluralism to counteract the employment of Dark Patterns within the online environment. In line with our discussion in chapter 1 and chapter 2, the author maintains that fairness represents a central aspect in the perspective of a regulatory pluralism, since these UIs are "physically unobtrusive" and manipulative; additionally, their intentions are not generally transparent, thus they are *not fair to users*.

Firstly, Leiser analyses opportunities and limitations of the GDRP for the regulation of these UIs.

Article 25 of the GDPR[468] promotes two key-principles, namely, privacy-by-design and privacy-by default. With the former, data minimization is enforced, and data protection becomes part and parcel of data processing, without users necessarily needing to fully understand complex technical steps behind processing of their data taking place. Further, under this principle, individual (control) rights are integrated into the data systems operation, increasing overall transparency.

"A narrow interpretation of the PbD obligation implies that designers must evaluate any possible risks to privacy in the use of their service and take any measures necessary to prevent any threats to user"[469]. Data controllers shall implement technical and organizational measures appropriate for the protection of the data subject rights, both at the time of the determination of the means for the processing and at the time of the processing itself. Further, Recital 4 of the GDPR[470] stresses that personal data should be designed to serve mankind, "suggesting that privacy-by-design should be understood as a broad, overarching concept of technological measures for ensuring privacy"[471].

[467] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.

[468] Article 25 GDPR – Data Protection by design and by regulation: Taking into account the state of the art, the cost of implementation and the nature, scope, context and purposes of processing as well as the risks of varying likelihood and severity for rights and freedoms of natural persons posed by the processing, the controller shall, both at the time of the determination of the means for processing and at the time of the processing itself, implement appropriate technical and organisational measures, such as pseudonymisation, which are designed to implement data-protection principles, such as data minimisation, in an effective manner and to integrate the necessary safeguards into the processing in order to meet the requirements of this Regulation and protect the rights of data subjects.1. The controller shall implement appropriate technical and organisational measures for ensuring that, by default, only personal data which are necessary for each specific purpose of the processing are processed.2. That obligation applies to the amount of personal data collected, the extent of their processing, the period of their storage and their accessibility. 3. In particular, such measures shall ensure that by default personal data are not made accessible without the individual's intervention to an indefinite number of natural persons. An approved certification mechanism pursuant to Article 42 may be used as an element to demonstrate compliance with the requirements set out in paragraphs 1 and 2 of this Article.

[469] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.

[470] Recital 4 GDPR - Data Protection in Balance with Other Fundamental Rights: the processing of personal data should be designed to serve mankind. The right to the protection of personal data is not an absolute right; it must be considered in relation to its function in society and be balanced against other fundamental rights, in accordance with the principle of proportionality. This Regulation respects all fundamental rights and observes the freedoms and principles recognised in the Charter as enshrined in the Treaties, in particular the respect for private and family life, home and communications, the protection of personal data, freedom of thought, conscience and religion, freedom of expression and information, freedom to conduct a business, the right to an effective remedy and to a fair trial, and cultural, religious and linguistic diversity.

[471] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.

On the other hand, privacy-by-default requires pre-checked options for digital services to be always in favour of *maximum data protection*: in this way data should be collected only if necessary, unless the user allows for additional data collection.

Both principles taken together allows to automatically protect personal data in any given IT system or business practice. "If an individual does nothing, their privacy still remains intact. No action is required on the part of the individual to protect their privacy"[472]. Individuals enjoy automatically rights of privacy and personal data protection when using a product or a service. It follows, that, taking together these provisions, the GDPR mandates technology to be designed so that privacy is protected.

Nevertheless, some scholars have stressed the complexity of PbD principle in practice: if "a detailed understanding of the law and policy environment is lacking by engineers, how then should PbD be implemented in practice to prevent Dark Patterns?"[473]. Additionally, Birnhack et al. maintain that "PbD seems an intuitive and sensible policy tool for lawyers; however, for information systems developers and engineers, it is anything but intuitive as it goes against the grain of several well-established principles of information systems engineering"[474].

Further, an array of authors has analysed the limits of the use of design for regulation. Firstly, Brownsword stressed that such application "impacts users' empowerment and their ability to make choices"[475]. Secondly, Yeung maintained that "the cumulative effect of techno-regulatory action by a range of regulators acting independently across a variety of social contexts might ultimately lead to such a significant erosion of moral freedom that meaningful moral agency can no longer be sustained"[476]. Dark Patterns seem particularly difficult to regulate, since they alter users' decisions and preferences and manipulate them into doing something they would not have done otherwise.

Koops et al. argue that energy should be expended on "fostering the right mindset of those responsible for developing and running data processing systems [as this] may prove to be more productive that trying to achieve rule compliance by techno-regulation"[477]. Specifically, in case of employment of in case of employment of PbD principle, "the focus must not me limited solely to 'data protection compliance, [instead] we must look more holistically to principles of privacy law like protection for autonomy, liberty and human dignity"[478]. Accordingly, this principle comprises also an external obligation to ensure transparency for the processing activities of the controller and creates the benchmark for determining whether the design was *fair*

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[472] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.
[473] Urquhart, L., & Rodden, T. (2016). A Legal Turn in Human Computer Interaction? Towards 'Regulation by Design'for the Internet of Things. *Towards 'Regulation by Design'for the Internet of Things (March 11, 2016)*.
[474] Birnhack, M., Toch, E., & Hadar, I. (2014). Privacy mindset, technological mindset. *Jurimetrics*, 56.
[475] Brownsword, R. (2004). What the world needs now: Techno-regulation, human rights and human dignity. *Global governance and the quest for justice, Hart Publishing, Oxford*, 203-34.
[476] Yeung, K. (2011). Can we employ design-based regulation while avoiding brave new world?. *Law, Innovation and Technology*, *3*(1), 31.
[477] Koops, B. J., & Leenes, R. (2014). Privacy regulation cannot be hardcoded. A critical comment on the 'privacy by design'provision in data-protection law. *International Review of Law, Computers & Technology*, *28*(2), 178.
[478] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637; cited from Savirimuthu, J. (2013). Smart meters and the information panopticon: beyond the rhetoric of compliance. *International Review of Law, Computers & Technology*, *27*(1-2), 161-186.

on data subjects and consumers; such standard seems to be highly advisable especially in the light of the fact that the ECJ has never given a definition of the notion of fairness within the GDPR and a proper test is totally missing.

As already outlined the PbD principle allows to foster transparency within the process of data processing practices; this is particularly relevant because, as explained in chapter 1 of this analysis, "transparency acts as an important tool for ensuring users and empowered with the capability to determine whether agreeing to processing is in their best interests"[479].

Nevertheless, as explained chapter 2 analysis, transparency goes through a *paradox*: providing much information to individuals contrasts with transparency principle itself; as specified by Poludniak-Gierk, huge amount of data is *highly unlikely to be transparent*. The abundance of aspects the consumer has to be informed about by itself must obscure the picture"[480]. Transparency increases transaction costs and actual awareness of individuals is as stake. Leiser too stresses the idea according to which it is too optimistic to believe that informing individuals on how data is handed (for example what is being collected and to whom it is disclosed) will make them be in a better position to decide their preferences concerning privacy protection and disclosure. "The transparency principle is a trapdoor in the fight against dark patterns; one might argue that the more transparent a dark pattern, the more likely a user will consent to data processing when there is a significant power imbalance between the two parties"[481]. What really matters to users is whether the data processing is fair. Thus, "is the process designed for satisfying the legal requirements for processing personal data (the lawful principle) transparent and fair to users?"[482].

As explained in chapter 2, fairness plays a central role in data processing; however, scholars, such as Clifford and Ausloos[483] have developed concerns about the actual possibility of extension of this principle to the entirety of the pre-processing environment (UX and UI setting) and not just to the process itself.

According to Leiser, fairness should not be limited to data processing, but rather it "should be seen as something to be instilled throughout the design of the system architecture and any user interfaces"[484]. As explained in the first chapter of this analysis, fairness acts as *trait d'union* between different regulatory frameworks.

Leiser maintains that the combination of data protection legal tools together with consumer protection regulation is particularly relevant since consumer protection aims at addressing power differentials based *inter alia* on information asymmetries and/or bargaining power. Additionally, it provides a significant number of ex ante, ex post and preventive measures that can be deployed against a wide array of Dark Patterns.

[479]Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.
[480]Południak-Gierz, K. (2017). From Information Asymmetry to Information Overload-Technological Society of Consumers. *Contemporary issues of societal development*, 34.
[481] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.
[482] *Ibidem*.
[483] Clifford, D., & Ausloos, J. (2018). Data protection and the role of fairness. *Yearbook of European Law*, *37*, 130-187.
[484] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.

As already explained, in consumer protection discipline there are three specific Directives that particularly matter: the UTD, the UCPD and the CRD.

Starting from the UCPD, this regulation becomes pivotal when it comes to Dark Patterns since it takes into-account the overall transactional process, giving relevance to the *pre-contractual environment*; additionally, all the factual context of the commercial practices, including all its features and circumstances and the limitations of the communication medium circumstances, shall be taken into-account when assessing the misleading nature of a commercial practice[485]. "A Dark Pattern used to hide the commercial intent behind a commercial practice not only violates the transparency principle of the GDPR, but Article 7(2) and No 22 Annex I[486] of the UCDP"[487].

Further, Article 5 of the UCPD[488] defines as unfair all commercial practices contrary to the requirements of professional diligence. This is particularly relevant in the case of Dark Patterns since "the requirement of professional diligence can be used as evidence of what amounts to acceptable design techniques. The UCPD's prohibition of practices contrary to the requirements of professional diligence can also be used in symbiosis with the industries it regulates"[489]. Additional enforcement comes from the E-Commerce Directive, in which professional ethics and codes of conduct are promoted; thus, these two Directives become essential to promote professional diligence against platform operators, that host services activity in the EU and use Dark Patterns.

Additional protection for consumers subject to Dark Patterns can be retrieved in the UTD, specifically in Article 3, where it is possible to find the *unfairness test*. Central in the test is the principle of *good faith* that requires a balancing of the interests in place. As explained in chapter 1 and 2 of this analysis, an overall evaluation of the interests involved is required while assessing fairness in place.

The CRD, on the other hand, helps to cover all terms except "core" ones "(the main subject matter of the contract and the price payable) as long as they are prominent and transparent"[490].

It follows that consumer protection becomes pivotal for the regulation of Dark Patterns, to the extent that, it enforces transparency, allows to conduct an evaluation of the overall transaction, and helps to counteract misleading and hidden information in contractual agreements.

To sum up:

> "The consumer protection regime not only facilitates the collectivization of resources but can reduce actual costs while providing consumers with greater participation rights at national rather EU level […]. The consumer protection acquis provides a significant number of *ex-ante*, *ex-post*, and preventative measures that could be deployed against a variety of dark patterns [such as Article 7 of the UCPD]. [Finally], a person acting as a data subject will have the right to redress under GDPR. The person acting as

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[485] Article 7 UCPD – *see supra note* 82.

[486] No 22 Annex I UCDP: "Falsely claiming or creating the impression that the trader is not acting for purposes relating to his trade, business, craft or profession, or falsely representing oneself as a consumer".

[487] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.

[488] *See supra note* 80.

[489] Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.

[490] *Ibidem*.

a consumer will have the right to redress under the consumer protection acquis. A data subject who is also a consumer, in a business-to-consumer relationship can exercise their rights twice: once as a consumer and once as a data subject"[491].

On the other hand, according to Graef et al., it becomes relevant to integrate regulatory tools from *competition law* as well: "despite the partial overlap in objectives of the regimes of competition, data protection and consumer law, their respective rules and principles are typically still applied in isolation from each other even though a particular type of behaviour may raise issue under more than one legal framework. As a result, there is room to apply the different regimes in a more coherent way to achieve a better protection of consumers"[492].

Graef et al. maintain that it is possible to depict an interplay between data protection and competition discipline and a combined enforcement seems to be beneficial. Accordingly, there has been a recent attempt from the Bunderskartellamt to integrate data protection interests into competition analysis while pursuing an investigation into Facebook's terms of service to examine whether consumers are sufficiently informed about the type and the extent of personal data collected; the Bunderskartellamt suspected that Facebook's terms and service were in violation of data protection law and could thereby constitute abusive imposition of unfair conditions of users. The investigation offers a "new precedent under which competition enforcement also has a role to play in preventing exploitation of consumers by dominant firms through the imposition of unfair conditions regarding the processing of personal data"[493].

Additionally, "the use of principles from data protection law as benchmarks for analysing whether abuse of dominance under competition law exists can also bolster the enforcement capabilities of competition authorities"[494]. Up to now, in the context of exploitative abuses (i.e., practices that cause direct harm to consumers in the form of, for instance, excessive prices), authorities have followed a libertarian approach, relying on the market capability to self-regulate. However, with the recent tendency of markets to become increasingly concentrated and new technologies giving businesses unprecedent opportunities to track and monitor individual preferences, "there is the need for more proactive approaches to address anticompetitive effects of consumer exploitation under competition"[495].

The presented fairness-oriented holistic approach, that conjugates data protection discipline, competition law and consumer regime, seems to be effective in the regulation of Dark Patterns.

Nonetheless, despite high potentiality of this regulatory framework, issues may emerge considering that consumer protection discipline takes as a benchmark a rational consumer; additionally, the principle of fairness is strictly connected to the principle of transparency, that goes through the illustrated paradox.

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[491]Leiser, M. R. (2020). 'Dark Patterns': the case for regulatory pluralism. Available at SSRN 3625637.
[492] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 210.
[493] *Id*, 211.
[494] *Ibidem*.
[495] *Id*, 212

These considerations represent the starting point for the experimental analysis that will be conducted within this chapter.

3.1.4 Current research and addressable gaps

Current research on Dark Patterns is still in its infancy. As explained by Hurwitz, there is still not enough research capable to show the effective risks of unintended consequences of Dark Patterns. There are two interesting experimental analyses, that have illustrated some effects of Dark Patterns on individuals' choices.

Firstly, it is important to acknowledge Nouwen's et al.'s recent work[496], that has explored how CMP designs impact on individuals' choice, and more specifically on their consent decisions.

Secondly, Strahilevitz and Luguri's research[497] has given relevant contributions within the field of Dark Patterns, specifically analysing the acceptance rate of an identity theft protection plan in case of employment of mild and aggressive Dark Patterns.

A fundamental aspect that has still not been explored is the level of individual awareness on the employment of these UIs. As already explained, transparency is a central principle both in data protection regulation and in consumer protection regime. In order to understand whether transparency and information disclosure are really effective tools, it becomes essential to explore the awareness of the individuals on the employment of these UIs.

3.1.5 The role of trust as a *proxy* for individuals' awareness

In order to assess the level of awareness of this phenomenon among individuals, this research will use as a *proxy* the level of trust in case of employment and non-employment of Dark Patterns.

Trust is a broad concept, that finds application in many fields. According to Schoorman, "trust represents the "willingness to take risk," and the level of trust is an indication of the amount of risk that one is willing to take"[498]. Trust works as a mechanism for reducing consumers' perceived risk in Internet shopping[499] and "the outcome of trust is proposed to be reduced perceived risk, leading to positive intentions towards adoption of e-banking"[500]. In 2013, Loureiro was able to find that the relationship between the Internet banking trust and online risks had a significant but reverse effect: in other words, trust helps in the reduction of risk perception[501].

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[496] Nouwens, M., Liccardi, I., Veale, M., Karger, D., & Kagal, L. (2020, April). Dark patterns after the GDPR: Scraping consent pop-ups and demonstrating their influence. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*(pp. 1-13).

[497] Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 43-109.

[498] Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An integrative model of organizational trust: Past, present, and future,346.

[499] Derbaix, C. (1983). Perceived risk and risk relievers: An empirical investigation. *Journal of economic psychology*, *3*(1), 19-38.

[500] Yousafzai, S. Y., Pallister, J. G., & Foxall, G. R. (2003). A proposed model of e-trust for electronic banking. *Technovation*, *23*(11), 847.

[501] Loureiro, S. M. C. (2013). The effect of perceived benefits, trust, quality, brand awareness/associations and brand loyalty on internet banking brand equity. *International Journal of Electronic Commerce Studies*, (2), 139-158.

"Just as perceptions about an individual's ability, benevolence, and integrity will have an impact on how much trust the individual can garner, these perceptions also affect the extent to which an organization will be trusted"[502]. In line with this, in 2003, Gurviez and Korchia[503] built and tested a multidimensional scale to assess trust toward a brand: they were able to identify 3 significant dimensions, specifically credibility, integrity and benevolence, to evaluate the perceived level of trust of consumers. In 2008, Swaen and Chumpitaz[504] took back findings and results from Gurviez and Korchia's research and were able to confirm the significance and the relevance of credibility and integrity dimensions to assess the level of trust in place.

Paramarta et al.[505] published in 2018 a research focused on sharing of information on social media, that shows that if users have strong concerns about privacy protection and believe the function of social media sites to protect their data, they tend to *share more information*.

What emerges from previous research is that when individuals are aware of risks in place and negatively evaluate credibility and integrity of the company, they present lower level of trust. Thus, trust is going to be set as a proxy to assess individuals' awareness in case of employment/non employment of Dark Patterns. This research will specifically address the two-following research questions:

Research Question 1: Taking into-account individuals exposed to Dark Patterns and those not exposed to Dark Patterns, is there a significant difference in perceived trust between them? In other words, are individuals aware of the employment of Dark Patterns?

Research Question 2: Is it possible to detect differences between Dark Patterns on their impact on individuals' trust?

Additionally, previous contribution by Strahilevitz and Luguri revealed that the more educated individuals were less likely to accept services offered with Dark Patterns interfaces. In other words, it has been found that education, in some way, acts as a moderator on the relation between UIs and their individual choice: when employing Dark Patterns (vs control condition), the more individuals are educated the less they accept services offered through these misleading UIs.

Starting from this finding, this research aims at proving that the more educated people are more aware of these tricky UIs; the objective is to find a moderating role of education on the relation between UIs and their individual trust.

This research will additionally address the following research questions:

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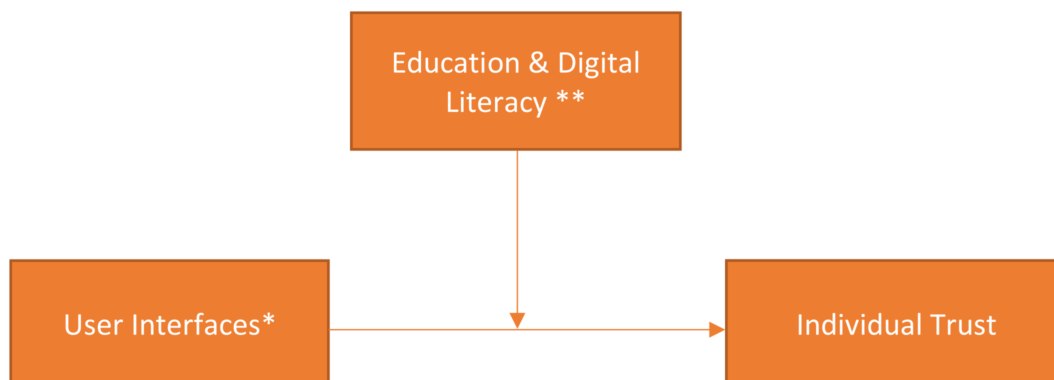
[502] Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An integrative model of organizational trust: Past, present, and future, 345.
[503] Gurviez, P., & Korchia, M. (2002). Proposition d'une échelle de mesure multidimensionnelle de la confiance dans la marque. *Recherche et Applications en Marketing (French Edition)*, *17*(3), 41-61.
[504] Swaen, V., & Chumpitaz, R. C. (2008). Impact of corporate social responsibility on consumer trust. *Recherche et Applications en Marketing (English Edition)*, *23*(4), 7-34.
[505] Paramarta, V., Jihad, M., Dharma, A., Hapsari, I. C., Sandhyaduhita, P. I., & Hidayanto, A. N. (2018, October). Impact of user awareness, trust, and privacy concerns on sharing personal information on social media: Facebook, twitter, and instagram. In *2018 International Conference on Advanced Computer Science and Information Systems (ICACSIS)* (pp. 271-276). IEEE.

Research Question 3: Do education and digital literacy impact on the relation between UIs and individuals' trust? Specifically, do they assume a moderating role?

3.2 Conceptual Framework and Research Development

This section is dedicated to the description of conceptual framework and research development. Firstly, this experimental analysis will be conducted according to the following *moderation* model:



*User Interfaces: Control Condition/DP1/DP2/DP3; **Education & Digital Literacy: relatively low (0)/high (1).

The independent variable is represented by Employment/Non-Employment of Dark Patterns; in case of non-employment 3 different Dark Patterns are selected from the taxonomy produced by Strahilevitz and Luguri[506]: urgency, preselection and social proof. On the other hand, individual trust represents the dependent variable. Finally, the mediator is represented by digital literacy and education, according to 2 groups: high and relatively low.

3.2.1 Direct effect of Dark Patterns on Individual Trust

Previous literature has explored the level of *individual trust* resulting from the employment of specific *information design*.

In case of *sense of urgency* (DP1), employed in information design to encourage a specific individual behaviour (e.g., subscribing of a certain service, purchasing a certain item…), it has been proven that it is highly effective in order to stimulate demand and willingness to buy: "study after study shows that items and opportunities are seen to be more valuable as they become less available"[507].

[506]Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 43-109.
[507] Cialdini, R. B. (2001). The science of persuasion. *Scientific American*, *284*(2), 76-81.

People want things that are scarce and serve their competitive needs[508]: people are motivated more by the thought of losing something than by though of gaining something of equal value. The scare tactics of penalties is likely to lead to an intense feeling and therefore get users to think and react quickly[509]. This is a direct implication of loss aversion: "a salient characteristic of attitudes to changes in welfare is that *losses loom larger than gains*" [510]. The idea of losing a limited offer increase individuals' willingness to get that particular item. Aggarwal, Jun, and Huh found that scarcity could boost consumers' perceived value towards products and increase desire to own products, product quantity and satisfaction[511]. Additionally, Gupta[512], in his research discovered that perceived scarcity could raise intention to buy because it caused urgency to buy. "This happens because consumers are insecure that they cannot get the limited products. Perceived scarcity was also believed that it could result in some emotional outcomes such as anticipated regret"[513]. In 2019, Kartika further explored the relation between scarcity and intention to buy and confirmed that consumers' perceived scarcity has positive impact toward intention to buy.

Nonetheless, the relation between limited offers and individual trust has been scarcely studied. One interesting insight comes from a 2020 research by Chae, Kim, Lee and Park, in which the impact of product characteristics of limited-edition shoes on brand trust was studied. The authors found that such offer, with a scarcity message, was closely related to perceived value, brand trust and purchase intention. They basically proved an indirect positive relation between the characteristics of limited-edition shoes and brand trust: the limited product showed a positive relation with its perceived value, that was positively related to brand trust[514].

In case of employment of *default option* (DP2), people may perceive the given default as an implicit endorsement by some external authority[515] . Individuals seem to perceive that if a default is in place, it has been chosen for a (good) reason; this is especially true when they lack expertise or relevant experience or when the product in question is complex[516].

Previous research has proven that when individuals choose to stay with the default option, they trust the authority or the entity that provides them with such option. An interesting contribution comes from a 2011 research by Liersch and McKenzie, who were able to prove that trust causally impacts people's willingness to stay with the default option[517]. Additionally, Tannenbaum and Ditto, in 2011, showed that default options are

[508] Workman, M. (2008). Wisecrackers: A theory-grounded investigation of phishing and pretext social engineering threats to information security. *Journal of the American Society for Information Science and Technology*, *59*(4), 662-674.
[509] Naidoo, R. (2015, February). Analysing urgency and trust cues exploited in phishing scam designs. In *10th International Conference on Cyber Warfare and Security*, 219.
[510] Kahneman, Daniel, & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 279.
[511] Aggarwal, P., Jun, S. Y., & Huh, J. H. (2011). Scarcity messages. *Journal of Advertising*, *40*(3), 19-30.
[512] Gupta, S., & Gentry, J. W. (2019). 'Should I Buy, Hoard, or Hide?'-Consumers' responses to perceived scarcity. *The international Review of Retail, Distribution and Consumer research*, *29*(2), 178-197.
[513]Kartika, F. N. (2019). The Effects of Perceived Scarcity and Anticipated Emotions on Purchase Intention (A Study on Social Commerce). *International Journal of Business and Administrative Studies*, *5*(1), 10.
[514] Chae, H., Kim, S., Lee, J., & Park, K. (2020). Impact of product characteristics of limited edition shoes on perceived value, brand trust, and purchase intention; focused on the scarcity message frequency. *Journal of Business Research*, *120*, 398-406.
[515] McKenzie, C. R., Liersch, M. J., & Finkelstein, S. R. (2006). Recommendations implicit in policy defaults. *Psychological Science*, *17*(5), 414-420.
[516] Schubert, C. (2017). Green nudges: Do they work? Are they ethical?. *Ecological Economics*, *132*, 329-342.
[517] Liersch, M. J., & McKenzie, C. R. (2011). In defaults we trust. *ACR North American Advances*.

capable to reveal specific information about policy makers' decisions and the reasons that stand behind them: "automatic enrolment defaults (where individuals opt-out of a program) are often thought to convey information about what policymakers think, whereas non-enrolment defaults (individuals opt into a program) are usually viewed as uninformative"[518]. Accordingly, the research has been able to reveal that "under the staggered deadlines default, students high in trust were especially likely to stick with the default, and students low in trust were especially likely to leave the default"[519].

Moving to *Social Proof* (DP3), there is extensive literature on the impact of this individual bias on their decision-making process. As previously specified, individuals tend to be highly influenced by peer pressure and social reference, or in other words by others' judgments and expectations. Accordingly, if a certain behaviour is spread all around, that's a social proof that that behaviour is good. Social proof is not the only thing that influence individual behaviour, but individuals are influenced also by the expectations of others: what they think other people expect them to do.

Bicchieri and Dimant[520], in a recent research, were able to identify 4 types of behaviour that influence individuals, according to 4 dimensions: independent/interdependent behaviour, empirical/normative expectations. Both descriptive and social norms determine behaviours that depend on other expectations. Specifically, with social norms, individuals' choices depend on both empirical expectations and normative expectations.

The element of trust is strong in case of social proof: individuals tend to trust collective behaviours. Accordingly, Rao et al. proved that "especially when we are uncertain, we are willing to place an enormous amount of trust in the collective knowledge of the crowd"[521]. Additionally, a recent article published by Wharton University of Pennsylvania, stresses the idea according to which social proof act as a trust signal and people used to rely on each other for referrals for all kinds of needs[522].

Despite we expect positive level of trust in case of employment of UIs leveraging specific individual biases, the latter act without conscious awareness of the individual. Individuals in 98% of the case employ system 1 that lead them to take quick decisions, without mental effort[523]. As explained by Kahneman and Tversky, it is possible to recognize the situations in which impressions are likely to be biased and to make appropriate corrections to fix them[524]. It follows that it is reasonable to drive people's attention toward the cognitive bias and make them overcome it, but only under *cognitive deliberation*.

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[518] Tannenbaum, D., & Ditto, P. H. (2011). Information asymmetries in default options. *Unpublished Working Paper). Retrieved from http://home. uchicago. edu/davetannenbaum/documents/default% 20information*, *2*.
[519] *Ibidem*.
[520] Bicchieri, C., & Dimant, E. (2019). Nudging with care: The risks and benefits of social information. *Public choice*, 1-22.
[521] Rao, H., Greve, H. R., & Davis, G. F. (2001). Fool's gold: Social proof in the initiation and abandonment of coverage by Wall Street analysts. *Administrative Science Quarterly*, 46(3), 502-526.
[522] Wharton University of Pennsylvania. (2019, August 13). The Importance of Social Proof as a Trust Signal. Retrieved from https://online.wharton.upenn.edu/blog/the-importance-of-social-proof-as-a-trust-signal/.
[523] Groenewegen, A. (n.d.). Kahneman Fast And Slow Thinking Explained.
Retrieved from [https://suebehaviouraldesign.com/kahneman-fast-slow-thinking/].
[524] Kahneman, D., & Tversky, A. (1973). *Judgment under uncertainty: Heuristics and biases* (Vol. 13, pp. 1-33, Tech. No. 1). Oregon Research Institute, 3.

Additionally, Waldman[525], in his work, stresses the idea according to which trust is a target of design manipulation. Online parties act in a trustworthy matter while deliberately hiding or obfuscating information and confusing users.

Thus, if individuals are not actually aware of cognitive bias in place, it should follow that:

H1: there is no significant difference in the level of trust between the case of employment of Time Pressure (DP1) and the control group (no employment of Dark Patterns).

H2: there is no significant difference in the level of trust between the case of employment of Default Option (DP2) and the control group (no employment of Dark Patterns).

H3: there is no significant difference in the level of trust between the case of employment of Social Proof (DP3) and the control group (no employment of Dark Patterns).

3.2.2 The moderating effect of Education and Digital Literacy on the relation between Dark Patterns and Individual Trust

Previous research by Strahilevitz and Luguri found that education has an impact on individuals' choices when facing specific UIs. Specifically, the two authors found that "the less educated participants were, the more likely they were to accept the program. [Nonetheless], in the absence of dark patterns, participants with high and low levels of education do not differentially value the offered program. However, when they are exposed to mild dark patterns, participants with less education become significantly more likely to accept the program. A similar pattern of results emerged in the aggressive dark pattern condition"[526].

It can be derived that when more educated individuals are exposed to dark patterns, they tend to have a different reaction with respect to less educated people; we expect that the reason of this result is given by the fact that they are more aware of these tricky UIs or, alternatively, they trust less the service provider (also in light of the fact that previous research has proven that trust influences purchase intention in online environment[527]). We hypothesize that:

H4: individuals with high education and digital literacy have lower perceived trust in case of employment of Time Pressure (DP1) vs non-employment of Dark Patterns.

H5: individuals with high education and digital literacy have lower perceived trust in case of employment of Default Option (DP2) vs non-employment of Dark Patterns.

[525] Waldman, A. E. (2020). Cognitive biases, dark patterns, and the 'privacy paradox'. *Current opinion in psychology*, *31*, 105-109.
[526] Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 70.
[527] "An online retailer needs to build the trust of consumers to purchase online instead of purchase goods offline because this research tells that trust has a significant and positive influence on online shopping behavior of consumers" Rehman, S. U., Bhatti, A., Mohamed, R., & Ayoup, H. (2019). The moderating role of trust and commitment between consumer purchase intention and online shopping behavior in the context of Pakistan. *Journal of Global Entrepreneurship Research*, *9*(1), 1-25.

H6: individuals with high education and digital literacy have lower perceived trust in case of employment of Social Proof (DP3) vs non-employment of Dark Patterns.

3.3 Method

3.3.1 Subjects

The sample is composed by 233 individuals, all residing in the United Kingdom, but with different nationality: 95,3% from European countries and 4,7% from non-European countries. The great majority of individuals come from the United Kingdom (79.8% of the sample). The average age of the sample is approximately 36 years old; additionally, the sample is composed by 67% female gender and 33% male gender individuals.

Concerning the *socioeconomic status*, participants were previously asked by Prolific system "*think of a ladder (see image) as representing where people stand in society. At the top of the ladder are the people who are best off—those who have the most money, most education and the best jobs. At the bottom are the people who are worst off—who have the least money, least education and the worst jobs or no job. The higher up you are on this ladder, the closer you are to people at the very top and the lower you are, the closer you are to the bottom. Where would you put yourself on the ladder? Choose the number whose position best represents where you would be on this ladder*"; a scale from 1 (bottom) to 10 (top) was used. The sample is mainly composed by people feeling themselves in position 6 (32,6%), followed by position 5 (19,3%) and 7 (18,9%); none of the participants think to be neither in the lowest position (1) nor in the top one (10).

Concerning education, most of the sample is represented by people with bachelor's degree (43,3%), followed by people with High School diploma or equivalent (32,2%) and master's degree (16,7%); only 4,7% of the participants did not complete high school and 3% have a PhD.

Finally, participants were asked their online shopping habits. 33,9% of the respondents on average do shopping online about once per week, 23,6% more than once a week, 13% about once a month, 24% several times per month and only 6% once in a few months or longer. None of the participants never do shopping online.

For graphs and additional details on sample see APPENDIX C.

3.3.2 Context

The study used a survey built on Qualtrics (see APPENDIX B). Participants were offered the same data protection service presented by Strahilevitz and Luguri in their research: a six months *data protection service* free of charge, that, after 6 months period, will be billed $8.99. The service was presented to respondents with 4 preselected UIs: a control condition (no employment of Dark Patterns), a Time Pressure treatment, a Default Option treatment, a Social Proof treatment. Individuals were randomly assigned to one of the four conditions.

In case of Time Pressure, a timer of 25 seconds was displayed to participants assigned to that treatment. The choice of 25 seconds is justified by recent research in time pressure and in risky decisions (i.e., "*Tempus Fugit*: Time Pressure in Risky Decisions"[528], "The neural basis of loss aversion in decision-making under risk"[529], "Expert financial advice neurobiologically "offloads" financial decision- making under risk"[530]). Because of the technical need to record neural activity in short time windows, subjects are presented stimuli and must make decisions in only a few seconds; for instance, in in Tom et al. research, the whole process of presentation and decision took a maximum of 3 seconds, whereas in Engelmann et al. research 3.5 seconds decision time was set in the experimental condition. In our case, we recorded the time employed to read the offering (approximately 20 seconds) and we leave few seconds (5) to take the decision; thus, the timer was set to 25 seconds.

In case of Default Option, we simply preselect the option with the best interest for the company (accept the service); this in line with previous research on Default Option, for instance in organ donations and medicine field[531].

Finally, in case of Social Proof, we informed the participants that 9/10 individuals had been subject to data breach prior to submit the data protection service: previous research in this field has used social cues to elicit a specific response, showing that giving feedback on others behaviour and judgments can lead to expected results [532].

Participants were paid at the end of the experiment via Prolific.ac (2018) (0,90 GBP). Sessions lasted on average 5 minutes.

3.3.3 Design

To test the hypotheses, a causal research using a 4X2 between-subjects experiment (Dark Pattern: non-employment, employment (DP 1), employment (DP 2), employment (DP 3); education and digital literacy: relatively low and high).

The independent variable is represented by Employment/Non-Employment of Dark Patterns; in case of employment, 3 different Dark Patterns are selected from the taxonomy produced by Strahilevitz and Luguri[533]: urgency, preselection and social proof.

[528] Kocher, M. G., Pahlke, J., & Trautmann, S. T. (2013). Tempus fugit: time pressure in risky decisions. *Management Science*, *59*(10), 2380-2391.

[529] Tom, S. M., Fox, C. R., Trepel, C., & Poldrack, R. A. (2007). The neural basis of loss aversion in decision-making under risk. *Science*, *315*(5811), 515-518.

[530] Engelmann, J. B., Capra, C. M., Noussair, C., & Berns, G. S. (2009). Expert financial advice neurobiologically "offloads" financial decision-making under risk. *PLoS one*, *4*(3), e4957. See also: Sunstein, C. R., & Thaler, R. H. (2014). *Nudge: Improving decisions about health, wealth, and happiness* (p. 320). Penguin Books.

[531] Johnson, E. J., & Goldstein, D. (2003). Do defaults save lives?. See also: Sunstein, C. R., & Thaler, R. H. (2014). *Nudge: Improving decisions about health, wealth, and happiness* (p. 320). Penguin Books.

[532] Talib, Y. Y. A., & Saat, R. M. (2017). Social proof in social media shopping: An experimental design research. In *SHS Web of Conferences* (Vol. 34, p. 02005). EDP Sciences. See also: Sunstein, C. R., & Thaler, R. H. (2014). *Nudge: Improving decisions about health, wealth, and happiness* (p. 320). Penguin Books.

[533]Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 43-109.

The dependent variable is represented by the individual trust, measured through a *trust scale* firstly developed by Gurviez and Korchia, in 2002[534], and then rearranged in a further study by Swaen and Chumpitaz, in 2008[535]. In the scale, two dimensions of trust are measured, *perceived credibility* and *perceived integrity*, with a total of 6 items. The scale is a 7-point Likert scale, with 1 = disagree entirely and 7 = agree entirely.

Further, the moderator is represented by digital literacy and education. Digital literacy will be assessed through a scale by Hargittai[536], developed on 30 items (splitted in two halves), representing IT terms, where 1 represents no understanding of the term and 5 full understanding of the it. After having computed the mean of understanding of the scale items, an index, was created, so that everyone was assigned a specific level of digital literacy level (from 1 to 5, where 1 represents relatively low digital literacy and 5 represents high digital literacy).

On the other hand, education will be measured through questions on the level of education achieved by participants: *no schooling completed*; *some high school, no diploma*; *high school graduate, diploma or equivalent*; *bachelor's degree*; *master's degree*; *PhD*.

Additionally, we measured participants' risk preferences through Hault and Laury test[537]: individuals were presented two Options (A and B) with 10 different payoffs, and they needed to indicate where they were willing to switch from Option A to Option B.

Further, we revealed participants' intertemporal choice employing Coller and Williams test[538]: individuals, in this case, were presented two Options (A and B) with 15 different payoffs, and they needed to indicate where they were willing to switch from Option A to Option B.

Finally, we asked participants to express their online shopping frequency with 5 distinct items: more than once a week (5), about once per week (4), several times per month (3), about once a month (2), once in a few months or longer (1) and never (excluded from our analysis since nobody selected it).

3.4 Results

Out of 238 participants, 5 are excluded from the dataset before the analysis, as they failed the control question (1 in the control group and 4 in the treatment groups, respectively 1 in DP2 condition and 3 in DP3 condition). 59 participants were assigned to the control condition, 62 to DP1 (Time Pressure), 56 to DP2 (Default Option) and 56 to DP3 (Social Proof).

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[534] Gurviez, P., & Korchia, M. (2002). Proposition d'une échelle de mesure multidimensionnelle de la confiance dans la marque. *Recherche et Applications en Marketing (French Edition)*, *17*(3), 41-61.
[535] Swaen, V., & Chumpitaz, R. C. (2008). Impact of corporate social responsibility on consumer trust. *Recherche et Applications en Marketing (English Edition)*, *23*(4), 7-34.
[536] Hargittai, E. (2009). An update on survey measures of web-oriented digital literacy. *Social science computer review*, *27*(1), 130-137.
[537] Holt, C. A., & Laury, S. K. (2002). Risk aversion and incentive effects. *American economic review*, *92*(5), 1644-1655.
[538] Coller, M., & Williams, M. B. (1999). Eliciting individual discount rates. *Experimental Economics*, *2*(2), 107-127.

3.4.1 Scale validity and reliability

Before testing our hypothesis, we verified validity and reliability of trust scale employed in the survey.

From Factor Analysis, it is possible to verify that the scale is valid. KMO and Bartlett's Test (Chart 1) shows a KMO statistic=0,841, which is larger than the recommended threshold (between 0,5 and 0,6); additionally, Bartlett's Test of Sphericity present a p-value=0,000 < significance level (α =0.05; C.I. 95%), thus we reject H0, meaning that the correlation matrix is not an identity matrix, and our variables are related, therefore suitable for structure detection (data reduction).

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,841
Bartlett's Test of Sphericity	Approx. Chi-Square	312,274
	df	15
	Sig.	,000

Table 1

The communalities table (Table 2) reveal that all the communalities are above 0,5, hence each variable presents a good amount of variance.

Communalities

	Initial	Extraction
Q4_1	1,000	,748
Q4_3	1,000	,809
Q4_4	1,000	,753
Q4_5	1,000	,750
Q4_6	1,000	,692
Q4_7	1,000	,770

Extraction Method: Principal Component Analysis.

Table 2

Further, the table summarizing Total Variance Explained (Table 3) shows that one factor should be retained, with 75% cumulative percentage of variance explained and eigenvalue > 1.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,522	75,369	75,369	4,522	75,369	75,369
2	,637	10,624	85,994			
3	,333	5,543	91,537			
4	,280	4,659	96,196			
5	,120	2,004	98,200			
6	,108	1,800	100,000			

Extraction Method: Principal Component Analysis.

Table 3

Finally, the Rotated Component Matrix table, despite not available (since only one factor has been extracted), simply confirms that one factor has been extracted and all the items load on it (loading values higher than 0,3).

On the other hand, from Reliability Analysis, it is possible to verify that the scale is reliable. Reliability Statistics (Table 4) reveal that Cronbach's Alpha value (0,934) respects the recommended conditions (0< $C\alpha$ <1; better if >0,6).

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,934	,935	6

Table 4

Additionally, the Inter-Item Correlation Matrix (Table 5) shows that correlation between items is between 0 and 1; >0,10.

Inter-Item Correlation Matrix

	Q4_1	Q4_3	Q4_4	Q4_5	Q4_6	Q4_7
Q4_1	1,000	,822	,695	,686	,605	,691
Q4_3	,822	1,000	,843	,740	,588	,679
Q4_4	,695	,843	1,000	,721	,597	,658
Q4_5	,686	,740	,721	1,000	,687	,677
Q4_6	,605	,588	,597	,687	1,000	,871
Q4_7	,691	,679	,658	,677	,871	1,000

Table 5

Finally, looking at the Item-Total Statistics table (Table 6) shows that Cronbach's Alpha does not improve if we delete some items from the scale.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q4_1	19,93	41,616	,798	,714	,923
Q4_3	20,19	42,741	,846	,828	,916
Q4_4	20,80	44,199	,802	,739	,922
Q4_5	20,00	42,345	,802	,661	,922
Q4_6	19,80	42,992	,761	,784	,927
Q4_7	19,88	42,348	,824	,809	,919

Table 6

3.4.2 Direct Effect of UIs on individual choices

The first thing we are interested in is understanding whether different UIs (CC/DP1/DP2/DP3) have an impact on individual choices (accept/refuse data protection service).

In order to analyse the presence of possible relationship between our testing variable (Choice: accept/refuse data protection service) and our grouping variable (Scenari: CC/DP1/DP2/DP3), we decided to perform chi-squared non-parametric test. The choice is justified by the fact that the sample is small, and, in this way, we expect more accurate results.

As shown in table 9, chi-squared test shows that there is no significant relation between the two variables. Nevertheless, looking at Chart 10, it is possible to depict a consistent difference in individuals' choice within DP1 (Time Pressure) with respect to all the other groups.

$$\chi^2(3) = 4{,}518,\ \text{p-value } (0{,}211) > \alpha\ (0{,}05)$$

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Choice * Scenari	233	23,3%	765	76,7%	998	100,0%

Choice * Scenari Crosstabulation

			Scenari				
			CC	DP1	DP2	DP3	Total
Choice	0	Count	30	43	32	32	137
		% within Choice	21,9%	31,4%	23,4%	23,4%	100,0%
		% within Scenari	50,8%	69,4%	57,1%	57,1%	58,8%
		% of Total	12,9%	18,5%	13,7%	13,7%	58,8%
	1	Count	29	19	24	24	96
		% within Choice	30,2%	19,8%	25,0%	25,0%	100,0%
		% within Scenari	49,2%	30,6%	42,9%	42,9%	41,2%
		% of Total	12,4%	8,2%	10,3%	10,3%	41,2%
Total		Count	59	62	56	56	233
		% within Choice	25,3%	26,6%	24,0%	24,0%	100,0%
		% within Scenari	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	25,3%	26,6%	24,0%	24,0%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4,518[a]	3	,211
Likelihood Ratio	4,596	3	,204
N of Valid Cases	233		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 23,07.

Tables 7, 8 and 9

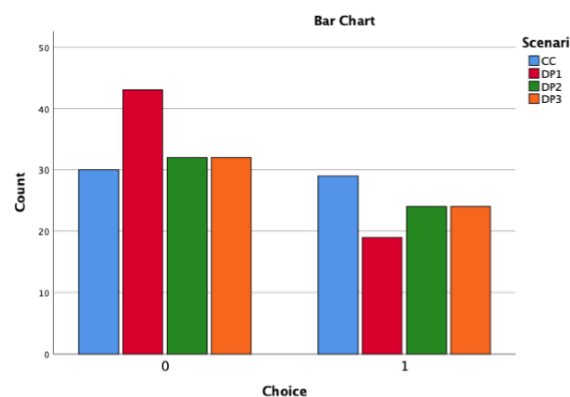


Chart 10

Applying again the chi-squared non-parametric test with Choice (0/1) as testing variable and CC (0) vs DP1 (1) [other treatments not included] as grouping variable it was possible to verify that the refusal rate in Time Pressure is significantly higher than in the Control Condition.

$$\chi^2(1) = 4{,}327,\ \text{p-value}\ (0{,}038) < \alpha\ (0{,}05)$$

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4,327[a]	1	,038		
Continuity Correction[b]	3,588	1	,058		
Likelihood Ratio	4,352	1	,037		
Fisher's Exact Test				,043	,029
Linear-by-Linear Association	4,291	1	,038		
N of Valid Cases	121				

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 23,40.

b. Computed only for a 2x2 table

Table 11

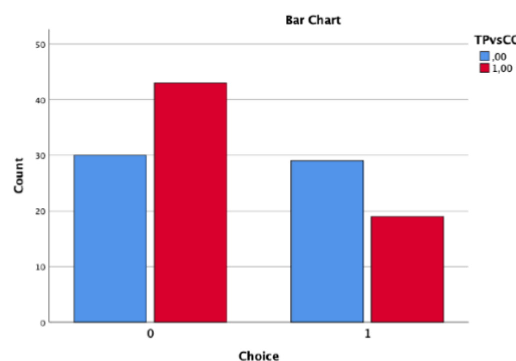


Chart 12

In contrast, the acceptance rate in the Default Option and in the Social Proof condition is not significantly different than the acceptance rate in the control condition (same result for both treatments):

$$\chi^2(1) = 0{,}458,\ \text{p-value}\ (0{,}498) > \alpha\ (0{,}05)$$

The finding concerning time pressure and significantly lower acceptance rate gives additional insights to current state of art in time-pressure and decision-making field. “Judgment and decision-making research has demonstrated that cognitive processing is altered when decisions are made under time pressure”[539]. Previous works demonstrate that time constraints can affect both negatively and positively the decision-making process. “People facing time-constrained decisions tend to engage in less analytical processing, to consider fewer

[539] Stuhlmacher, A. F., & Champagne, M. V. (2000). The impact of time pressure and information on negotiation process and decisions. *Group Decision and Negotiation*, *9*(6), 471-491.

options/attributes, and to give more weight to negative information, all of which lead to worse outcomes"[540]. However, "findings on the "adaptive decision maker" suggest that people are nimble enough to cope with time constraints by minimizing effort without an extreme degradation of decision quality. That is, decision makers have learned through practice how to work smarter and not harder when under time constraints"[541].

Research has also proved insights on time-pressure and risk aversion, showing *mixed effects* within this field. Kocher et al., in 2013, found that time pressure has no effect on risk attitudes for gains, but increases risk aversion for losses. For mixed prospects, subjects become simultaneously more loss averse and more gain seeking under time pressure, depending on the framing of the prospect[542].

In our specific case, there was no money endowment of individuals, thus, it was more difficult to elicit *risk aversion* perceptions: despite participants could not foresee the outcome of their choice (accept and continue vs refuse), they were not actually motivated by an economic incentive, since they were not physically concluding a transaction.

It is possible to conclude that in a situation in which individuals are not affected by possible money losses, time pressure has a negative effect on individuals' decisions.

Despite the low numerosity of the sample does not ensure a rigorous parametric analysis, it was still insightful to perform it since it allowed us to depict some interesting and considerable effects. Specifically, a regression analysis was performed, setting as dependent variable individuals' choices (accept (1)/refuse (0)), the control condition as baseline and the treatment conditions (dichotomized) as predictors. Other independent variables were progressively tested in order to get insights on best regressors for our model. All the categorical predictors were transformed into dummy variables before performing regression analysis.

Regression analysis was finally performed with *choice* as dependent variable; on the other hand, treatment conditions, Risk Aversion (Risk Averse (1)/Risk Seeking (0)), Nationality (European (1)/non-European (0)) as independent variables.

In this way, it is possible to verify that choice is predicted by Time Pressure and Risk Aversion (Table 12).

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	,685	,162		4,216	,000	,417	,953
	TIMEP	-,196	,089	-,176	-2,203	,029	-,343	-,049
	DO	-,068	,091	-,059	-,742	,459	-,218	,083
	SPF	-,068	,091	-,059	-,743	,458	-,219	,083
	RAREC	-,134	,066	-,132	-2,024	,044	-,243	-,025
	EuVSNonEu	-,144	,151	-,062	-,951	,343	-,394	,106

a. Dependent Variable: Choice

Table 12

[540] Ordóñez, L. D., Benson III, L., & Pittarello, A. (2015). Time-pressure perception and decision making. *The Wiley Blackwell handbook of judgment and decision making*, *2*, 522.
[541] *Id*, 523.
[542] Kocher, M. G., Pahlke, J., & Trautmann, S. T. (2013). Tempus fugit: time pressure in risky decisions. *Management Science*, *59*(10), 2380-2391.

Nonetheless, model fit is slightly good F (5,227) =1,895, p-value (0,096) < α (0,1) (C.I. 90%) and R^2=0,200 ($0\leq R^2\leq 1$) (only 20% of the variance of choice is explained by predictors).

Accordingly, when we include individual trust, all the other predictors become not significant. What emerges (Table 13), is that the choice works *only* in function of *trust*.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,308	,194		-1,587	,114
	TIMEP	-,037	,080	-,033	-,463	,644
	DO	-,111	,081	-,096	-1,370	,172
	SPF	-,061	,079	-,053	-,767	,444
	Trust	,217	,024	,543	9,171	,000
	EuVSNonEu	-,045	,135	-,019	-,331	,741
	GREC	-,041	,062	-,040	-,667	,506
	SocioEcoREC	-,052	,068	-,044	-,756	,450
	ICREC	,028	,058	,029	,492	,623
	RAREC	-,056	,059	-,055	-,959	,339
	DLMS	-,007	,061	-,007	-,111	,912
	EducationD	,086	,074	,070	1,171	,243
	OSH	,010	,067	,009	,153	,879

a. Dependent Variable: Choice

Table 13

In this case, model fit improves F (12,220) =8,215, p-value (0,000) < α (0,05) (C.I. 95%) and R^2=0,556 ($0\leq R^2\leq 1$) (56% of the variance of choice is explained by predictors). Thus:

$$\widehat{choice} = -0{,}308 + 0{,}217 * Trust + E$$

When trust increases one unit, accept the service (1) increases 0,217 with respect to refuse the service (0).

In light of this finding, next session will be dedicated to the direct effect of UIs on Individual Trust, that represent the dependent variable of this empirical analysis.

3.4.3 Direct effect of UIs on Individual Trust

The first thing we are interested in understanding whether there is significant difference in the level of trust between participants exposed to different UIs (i.e., Control Condition, Dark Pattern 1, Dark Pattern 2, Dark Pattern 3).

From a descriptive point of view, the overall mean of trust, in different UIs, is between 3 and 4, as shown in Table 14.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Mean CC	59	1,00000000	6,16666667	4,01977401	1,29842402
Mean DP1	62	1,00000000	6,16666667	3,33602151	1,33213469
Mean DP2	56	1,50000000	7,00000000	4,26785714	1,10493776
Mean DP3	56	1,66666667	5,50000000	3,98809524	,965494139
Valid N (listwise)	0				

Table 14

What interestingly emerges from a first descriptive analysis is that participants show the highest average level of trust in Default Option condition (DP2) (M=4,27); this comes not surprisingly: as already explained, individuals trust in default options; "having a default option is one of the most basic nudges we can incorporate in the architecture of choices. The users understand default options as normative or a good suggestion. They trust that is their best option among all of them"[543].

In order to test our hypotheses 1, 2 and 3, we exploited Kruskal-Wallis non-parametric test, that allows to determine if there are statistically significant differences between our 4 groups of the IV (*UIs*) on our continuous dependent variable (*Trust*). The choice of a non-parametric test is justified by the fact that the sample is small, and we expected more accurate results through it. Tables 15 and 16, summarizing the results from the test, show that the distribution of trust across the different UIs is not the same:

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Trust is the same across categories of Scenari.	Independent-Samples Kruskal-Wallis Test	,001	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,050.

Independent-Samples Kruskal-Wallis Test Summary

Total N	233
Test Statistic	17,463[a]
Degree Of Freedom	3
Asymptotic Sig.(2-sided test)	,001

a. The test statistic is adjusted for ties.

Tables 15 and 16

$$H\,(3) = 17{,}462,\ p\text{-}value = 0{,}001 < \alpha\,(0{,}05)$$

543 Borges, H. (2021, January 27). The power of having a default option. UX Planet. *Medium*. Retrieved May 21, 2021, from [https://uxplanet.org/the-power-of-having-a-default-option-185061a612c4].

However, looking at Pairwise Comparisons of UIs (Table 17), it is possible to notice that the only significant difference in average trust is between Time Pressure and Control Condition; in the other treatments, the same is not true (distribution of trust is not significantly different).

Pairwise Comparisons of Scenari

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
DP1-DP3	-33,835	12,410	-2,726	,006	,064
DP1-CC	37,434	12,243	3,058	,002	,022
DP1-DP2	-48,594	12,410	-3,916	,000	,001
DP3-CC	3,599	12,559	,287	,774	1,000
DP3-DP2	14,759	12,721	1,160	,246	1,000
CC-DP2	-11,160	12,559	-,889	,374	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Table 17

It is possible to conclude that Hypotheses 2 and 3 are verified, whereas Hypothesis 1 is not verified. Thus, individuals, under time pressure, trust less the service provider: they tend to show *some kind of awareness* with respect to UI in place. This is in line with previous research by Dror, Basola and Busemeyer[544], who showed that time constraints did not have a uniform effect on risk attitudes: under time constraint, participants were more risk averse with lower risk levels but more risk seeking at higher risk levels. In our case, individuals were exposed to low risk level because there was no money at stake; accordingly, they proved to be more sceptic (lower trust) within this condition.

In order to get additional insights on factors leading to lower level of trust in case of employment of time pressure, non-parametric correlation analysis was performed. Kendall's tau non-metric correlation shows that there is slightly significant negative correlation between trust in time pressure treatment and Digital Literacy Tb=-0,226 (p-value (0,025) $< \alpha$ (0,05)): higher digital literacy is associated with lower trust and vice versa.

Correlations

			Mean DP1	Dig. Liter. combined
Kendall's tau_b	Mean DP1	Correlation Coefficient	1,000	-,226*
		Sig. (2-tailed)	.	,025
		N	62	62
	Dig. Liter. combined	Correlation Coefficient	-,226*	1,000
		Sig. (2-tailed)	,025	.
		N	62	233

*. Correlation is significant at the 0.05 level (2-tailed).

Table 18

Looking at the graph (chart 19), it is possible to notice an interesting pattern of trust in DP1, taking into-account digital literacy as independent variable: higher trust is reached at category 2, then it substantially

[544] Dror, I. E., Basola, B., & Busemeyer, J. R. (1999). Decision making under time pressure: An independent test of sequential sampling models. *Memory & cognition*, *27*(4), 713-725.

diminishes; however, individuals with the lowest digital literacy (1) presents an ambiguously low level of trust, diverging from the identified pattern.

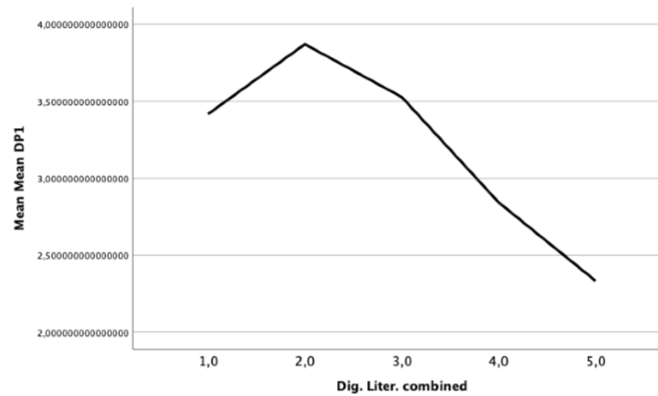


Chart 19

Despite the low numerosity of the sample does not ensure a rigorous parametric analysis, it was still insightful to perform it since it allowed us to depict some interesting and considerable effects. Specifically, we performed regression analysis, in which trust was set as dependent variable, the control condition as baseline and treatment conditions, together with other predictors as independent variables.

Model fit was firstly verified: F (7,225) =3,567, p-value (0,001) < α (0,05) (C.I. 95%) and R^2=0,316 ($0 \leq R^2 \leq 1$) (32% of the variance of choice is explained by predictors).

Looking at Table 20 it is possible to notice that the dependent variable (trust) is explained by two predictors: time pressure (1/0) and risk aversion (1/0), (p-value < α (0,05)); (C.I. 95%).

All the other independent variables are not significant: the level of trust does not depend neither on the other two treatment conditions, nor on the Digital Literacy of the individuals (1/0), their gender (Female (1)/Male (0)) and their nationality (European (1)/non-European (0)). Online shopping habits, socioeconomic status and intertemporal choice were verified as predictors of this regression model, however, they neither were significant, nor they contributed to the significance of the regression model.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	4,470	,433		10,327	,000
	TIMEP	-,701	,219	-,252	-3,207	,002
	DO	,236	,222	,082	1,062	,289
	SPF	-,039	,222	-,014	-,176	,860
	EuVSNonEu	-,316	,371	-,054	-,853	,394
	GREC	,026	,173	,010	,150	,881
	RAREC	-,327	,161	-,129	-2,025	,044
	DLMS	-,063	,166	-,025	-,377	,706

a. Dependent Variable: Trust

Table 20

$$\widehat{trust} = 4{,}470 - 0{,}701 * Time\ Pressure - 0{,}327 * Risk\ Aversion + E$$

When individuals are exposed to Time Pressure condition (1), trust diminishes by 0,701 with respect to control condition (baseline).

When individuals are risk averse (1), trust diminishes by 0,327 with respect to individuals that are not risk averse (0).

Chart 21, that takes into-account data from our sample, well illustrates the relation between trust and risk aversion: risk averse individuals present lower level of trust. Accordingly, when we introduce the element of risk aversion, the relation between treatment and trust diminishes; risk averse individuals are more sceptic and trust is strongly connected to perception of risks.

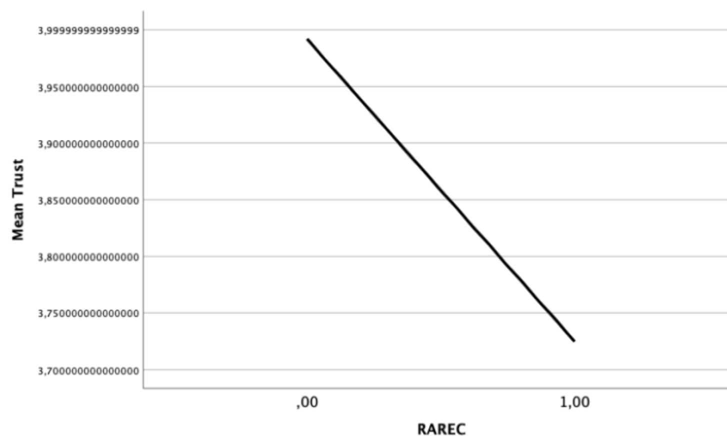


Chart 21

3.4.4 Moderating role of education and digital literacy

It was possible to identify 5 groups in the sample, with different education background. The great majority is represented by individuals who have completed their bachelor's degree (43%), followed by those with high school diploma or equivalent (32%).

With a first comparison of the level of trust between these groups, it is possible to notice that the less educated individuals (1) are associated with higher level of trust (μ=4,48, SD=0,58), followed by individuals with high school diploma only (2) (μ=3,90, SD=1,30). Individuals with bachelor's degree (3) (μ=3,81, SD=1,20) present, on average, a slightly lower level of trust in comparison to the ones who have completed their master's degree (μ=3,84, SD=1,23). The most surprising insight comes from the ones with PhD, that present a high average level of trust (μ=4,19, SD=1,63). The following chart summarizes all the information:

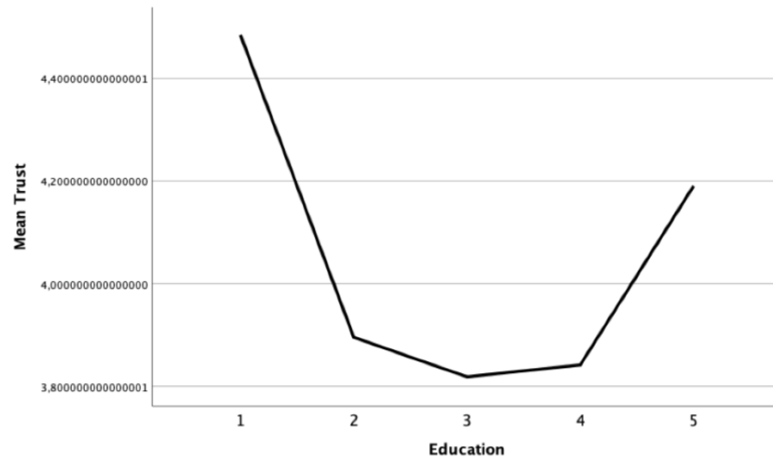


Chart 22

With respect to digital literacy, 2,15% of the individuals present low digital literacy (1); 19,74% of individuals were assigned an index of 2; the great majority (46,35%) of individuals were assigned 3; 27,5% of the participants were given an index equal to 4; finally, only 4,29% of the sample present a high digital literacy (=5).

With a first comparison of the level of trust between these groups, it is possible to notice that the ones with highest average level of trust are the ones with index 2 of Digital Literacy (μ=4,02, SD=1,26), followed by those with index 3 assigned (μ=3,98, SD=1,15) and by those with index 4 (μ=3,78, SD=1,28). The most interesting and surprising insight comes from those with the lowest level of digital literacy, that present a mean lower than group 2,3 and 4 (μ=3,67, SD=1,26). Finally, the group with the lowest average level of trust is represented by those with high digital literacy (5) (μ=3,13, SD=1,48).

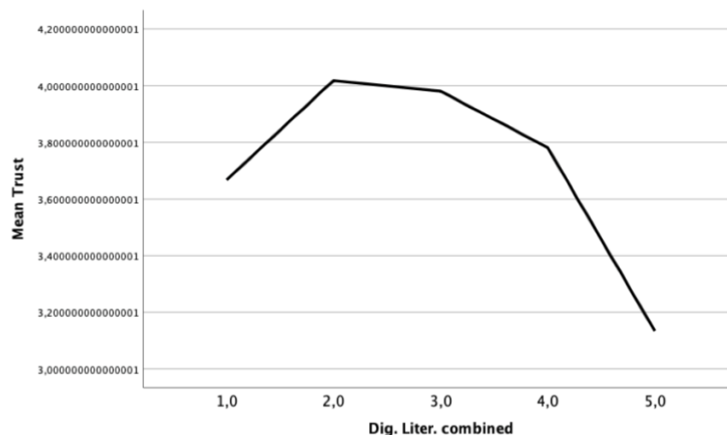


Chart 23

First off, we focused on the relation between education and digital literacy, from one side, and trust from the other.

In order to assess whether more educate individuals present significantly different average levels of trust, we carry out a non-parametric analysis with Kruskal-Wallis test; however, differences between groups were

not significant (p-value (0,364) > α (0,05)), thus pairwise comparisons were not available. Same was done with Digital Literacy, getting again not-significant results (p -value (0,343) > α (0,05)).

Further, we focused on *moderation effects*. Firstly, we created an index summarizing digital literacy and education of individuals. We transformed both the two variables in dummy variables (1/0), through *median split*. Thus, we created an overall index, according to which individuals with both high education and high digital literacy were assigned value 1, all the others 0.

Through univariate analysis and, specifically looking at tests of Between-Subjects effects (see APPENDIX C), it was possible to verify that the moderator has not significant effects on the dependent variable, in none of our UIs employed with respect to the baseline:

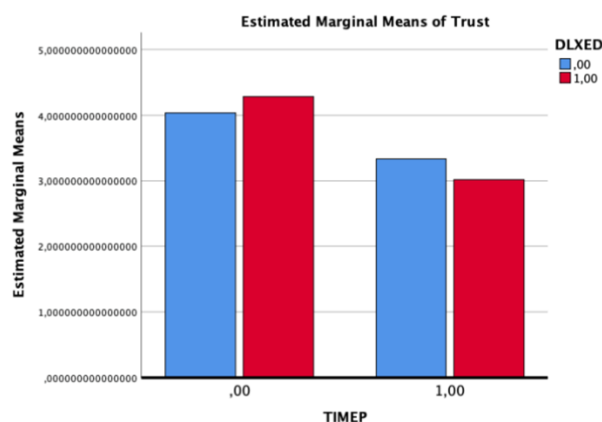
TimePressure X (DLXED): p-value (0,268) > α (0,05)

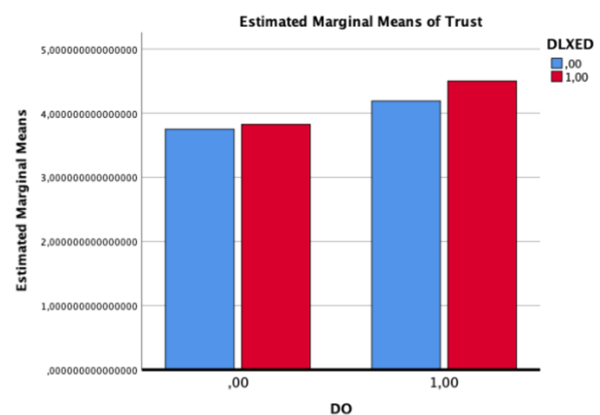
DefaultOption X (DLXED): p-value (0,812) > α (0,05)

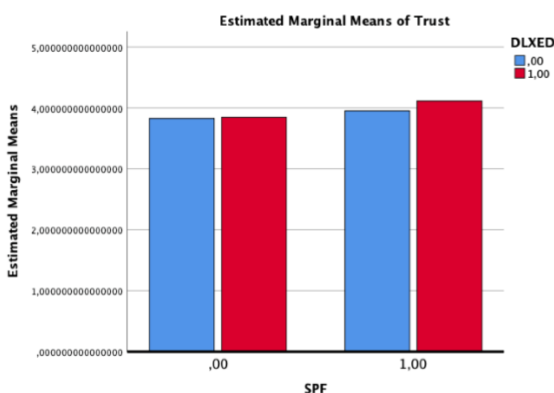
SocialProof X (DLXED): p-value (0,729) > α (0,05)

Thus, individuals with high education and digital literacy do not have lower perceived trust in case of employment of Dark Patterns vs control condition. Hypotheses 4,5 and 6 are not verified.

The following charts visually present the distribution of trust when considering different UIs (vs baseline) and the moderator (DLXED): the differences between high (1) vs relatively low (0), for UIs employing Dark Patterns vs the baseline (control condition), are not consistently *different*, but rather they are pretty the same.







Charts 24-25-26

For sake of completeness of this analysis, education and digital literacy were singularly taken into-account as moderators. Nevertheless, neither taking into-account the two factors together, nor considering them separately give significant results: education and digital literacy do not moderate the relation between UIs and Individual Trust.

3.5 General Discussion

This study aimed at showing *level of awareness* of individuals on Dark Patterns, starting from their level of trust toward the service provider of a certain data protection service. This section will be dedicated to the discussion of the main results of this empirical research and to legal implications that directly stems from them.

3.5.1 Main Results

Our aim was to prove that there is little awareness on the employment of these UIs and, in light of Strahilevitz et al.'s findings, we wanted to prove a possible moderation effect of education and digital literacy (included for sake of completeness of the research) on the relation between UIs and individual trust.

Regarding the first objective (direct effect), our analysis was able to confirm that individuals are not much aware of the use of Dark Patterns. This confirms previous research that has proven that cognitive bias act without conscious awareness of individuals: first off, Kahneman and Tversky literature[545] on behavioural field and, more specifically, Strahilevitz et al.'s work on Dark Patterns[546].

Nonetheless, there is one interesting exception that is represented by Time Pressure: in case of employment of this UI, individuals show significantly lower level of trust and of acceptance rate; the latter works in function only of the level of trust in place. This confirms previous finding on Time Pressure and risk perception, specifically research conducted by Dror, Basola and Busemeyer, who were able to prove that individuals with lower level of risk (as in our case) are more risk averse[547]. "Participants were more conservative and less likely to take an action (request an additional card) at the lower levels of risk and were more risky and likely to take an action at the higher levels of risk"[548]. Accordingly, previous literature on trust[549] has shown solid relation between trust and risk perceptions.

Another interesting finding involves risk perception of individuals: we were able to find that when we introduce the element of risk aversion, the effect of treatment on trust diminishes; risk averse individuals are more sceptic and, again, trust is strongly connected to perception of risks.

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[545] Kahneman, D., & Tversky, A. (1973). *Judgment under uncertainty: Heuristics and biases* (Vol. 13, pp. 1-33, Tech. No. 1). Oregon Research Institute.

[546] Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 43-109.

[547] Dror, I. E., Basola, B., & Busemeyer, J. R. (1999). Decision making under time pressure: An independent test of sequential sampling models. *Memory & cognition*, *27*(4), 713-725.

[548] *Id*, 722.

[549] Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An integrative model of organizational trust: Past, present, and future.

Moving to the second objective, namely the moderation effect, our analysis was not able to find significant effect of education and digital literacy (both together and separately) as moderator: awareness about Dark Patterns cannot be explained with previous education and knowledge about the digital environment.

Additionally, Charts 22 and 23 show peculiar patterns of trust in relation to education and digital literacy. From one side (Chart 22), it is possible to notice that trust diminishes when education level increases, up to a certain point: individuals with PhD show ambiguously high average level of trust. This might be justified under the assumption that, due to their high level of education, they lower the threshold of attention within the online environment because they are aware that their control of that environment is inherently limited, and that some strategies are endogenous to online market, therefore displaying a higher level of acceptance. In such a sense – although further research should be conducted in order to establish this aspect –the existence of a U-shaped relationship between individuals' literacy and trust in the digital environment might be hypothesized. From the other (Chart 23), it is possible to notice that trust diminishes when digital literacy level increases, but with one exception: individuals from our sample with low level of digital literacy (1) present an ambiguously lower average level of trust than individuals more knowledgeable about digital terms. This can be justified by the fact that since they have little knowledge about the online environment as a whole, they are more sceptic and less confident regarding each activity – including transactions and offers – conducted online, therefore displaying lower trust.

3.5.2 Legal Implications

This study presents some relevant results that lead to possible legal implications. As explained in previous chapters, legal tools in consumer protection have often promoted the idea of *empowerment* of individuals. Accordingly, "consumer protection law empowers individuals to make *well-informed autonomous choices*"[550]. Since education, but most of all digital literacy, do not have significant effects on the model, this principle may find some limitations. If individuals' experience on digital environment and related knowledge about digital terms do not show significant effects, consumers' and users' protection based on the principle of information disclosure seems to be too optimistic.

It follows that transparency too finds some limits. Accordingly, taking back previous work by Incardona and Poncibò "even well-informed consumers of a high intellectual and educational level, who would, at least in theory, be ideally suited for rational market behaviour, may often base their decisions on custom and feelings rather than on an analytical process"[551].

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[550] Graef, I., Clifford, D., & Valcke, P. (2018). Fairness and enforcement: bridging competition, data protection and consumer law. *International Data Privacy Law*, *8*(3), 203.

[551] Incardona, R., & Poncibò, C. (2007). The average consumer, the unfair commercial practices directive, and the cognitive revolution. *Journal of consumer policy*, *30*(1), 35.

A regulatory framework to counteract Dark Patterns based on fairness presents high potentiality, however, some doubts about its real effectiveness emerge considering that this principle is strictly connected to transparency, as shown in figure 3 of chapter 1.

Current consumer protection regime and data protection regulation seem to be not enough. European Institutions are now working on additional regulations that deserve to be acknowledged in order to understand real future possibilities for consumer protection and data protection within the digital market, in light of growing commercial practices exploiting information asymmetries between individuals and professionals, as well as cognitive bias.

3.6 Current state of work for future legal tools for data protection and regulation of the digital market

European Institutions are currently working on possible regulations that address, from one hand, artificial intelligence systems and, from the other, the digital market, in order to correctly deal with and promote innovation and the growth of the digital economy.

Among these regulations, it is possible to outline the proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and the Digital Market Act, together with the Digital Service Act, previously discussed in chapter 1 and 2.

These proposals particularly matter within the context of opportunities for the regulation of Dark Patterns insomuch as they give valuable tools to possibly address the phenomenon from more than one perspective, in line with the idea of regulatory pluralism.

3.6.1 Proposal for a regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)

Recently the European institutions and, more specifically, the European Commission, have focused on the possibilities for the regulation of AI (Artificial Intelligence) systems. They initially developed a first draft, that was replaced by a second proposal released on the 21st of April 2021.

Starting from 2017, the European Commission envisaged a "sense of urgency to address emerging trends [including] issues such as artificial intelligence …, while at the same time ensuring a high level of data protection, digital rights and ethical standards"[552]. Thus, it has worked in the direction of a balance between the promotion of these new innovative systems and the protection of individuals, "address[ing] the risks and problems linked to AI, without unduly constraining or hindering technological development or otherwise disproportionately increasing the cost of placing AI solutions on the market"[553].

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[552] European Council (2017), *European Council meeting (19 October 2017) – Conclusion* EUCO 14/17, 2017, p. 8.

[553] 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, 3. Retrieved the 24th of May from [https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence].

The proposal of a regulatory framework on AI has been developed with the following specific objectives: "ensur[ing] that AI systems placed on the Union market and used are safe and respect existing law on fundamental rights and Union values; ensur[ing] legal certainty to facilitate investment and innovation in AI; enhance[ing] governance and effective enforcement of existing law on fundamental rights and safety requirements applicable to AI systems; facilitat[ing] the development of a single market for lawful, safe and trustworthy AI applications and prevent market fragmentation"[554].

Within the context of this analysis, it becomes relevant to acknowledge article 5 of this proposal, according to which "the placing on the market, putting into service or use of an AI system that deploys *subliminal techniques* beyond a person's consciousness in order 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*" shall be prohibited.

It is possible to outline a reference to Dark Patterns and such association becomes even more clear observing article 4 of the initial draft for AI regulation, according to which "AI systems designed or used in a manner that *manipulates human behaviour*, opinions or decisions through *choice architectures* or *other elements of user interfaces*, causing a person to behave, form an opinion or take a decision to their detriment" are prohibited as contravening the Union values or violating *fundamental rights* protected under Union law.

This specific provision, that well addresses Dark Patterns, has then been changed into a broader norm that embraces all the subliminal techniques capable to distort a person's behaviour such that they cause her or another person physical or psychological harm.

The reference to physical or psychological harm is particularly interesting since it represents an original element within the European regulatory framework. Previously, the focus was mainly on the *economic interests*. Accordingly, the UCPD, whose Article 6 structure reflects the one of Article 5 of AI proposal, prohibits unfair commercial practices that directly harm consumers' economic interests.

One key-aspect of this proposal is the attempt made by the EU Commission to ensure a *high level of protection for fundamental rights* of the EU Charter: this regulation specifically aims at giving to individuals suitable protection within new digital environments, while ensuring the development of a single and functional market where AI systems can find their implementation.

3.6.2 Proposal for a regulation on contestable and fair markets in the digital sector (DMA) and proposal for a regulation on a Single Market for Digital Services (DSA)

If from one side it is relevant to guarantee protection of individuals and ensure a balance of interests within the market, from the other it becomes fundamental to regulate the digital market and businesses operating in it.

[554] 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, 3. Retrieved the 24th of May from [https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence].

Within this field there are two recently released proposals that deserve to be acknowledged: the Digital Market Act and the Digital Service Act.

The DMA specifically aims at regulating gatekeepers within the digital market to promote a constable and *fair environment*, with the final objective to stimulate digital platforms to unlock their full potential.

On the other hand, the DSA is intended to regulate the Single Market for Digital Services, ensuring the best conditions for the provision of innovative digital services in the internal market, to contribute to online safety and the protection of fundamental rights and to set a robust and durable governance structure for the effective supervision of providers of intermediary services, ultimately fostering *fairness*, transparency, and accountability. Additionally, the DSA proposes the development of appropriate risk management tools to protect the integrity of their services against the use of *manipulative techniques.*

These regulatory tools, in which the principle of fairness finds its application, aims at creating a safer environment within the digital market, ensuring the protection of the fundamental rights of all users of digital services and establishing a level playing field to foster innovation, growth, and competitiveness, both in the European Single Market and globally.

Both the DMA and the DSA find as legal basis article 114 of the TFEU, which provides for the establishment of measures to ensure the functioning of the Internal Market, and they specifically aim at ensuring proper functioning of the digital market.

Particularly, with the DMA, the Commission considered that article 102 TFEU (that addresses and prohibits abuses within the internal market that lead to unfair trading conditions) is not sufficient to deal with all the problems associated with gatekeepers, given that a gatekeeper may not necessarily be a dominant player, and its practices may not be captured by article 102, if there is no demonstrable effect on competition within clearly defined relevant markets.

It follows that both the Regulations become pivotal to strengthen provisions for the promotion of competition within the internal digital market.

3.6.3 Possible future perspectives

Current proposals for regulation, from one side addressing AI systems, and, from the other establishing rules for digital market and digital services, are interesting starting points within the context of the possibilities of regulation of Dark Patterns.

European Institutions are trying, from one side, to ensure effective competition within the digital market and, from the other, to protect fundamental rights of individuals.

Fairness still represents a central principle within this new regulatory framework, since it ensures a fair balancing of the interests in place, that has been, since always, a high priority for European Institutions. Regulating Dark Patterns represents a complex issue, but building a holistic approach, based on the principle of fairness, seems particularly promising to the extent that it makes possible to attain the welfare of consumers and of the economy as a whole.

In the context of increasing complexity of the markets and the introduction of new technologies giving businesses unprecedent possibilities to track and monitor individual preferences, it becomes relevant to conjugate legal tools from different regimes. (i.e., consumer protection, data protection and competition law).

Nonetheless, the European Institutions should embrace a less optimistic approach while drafting regulations for the protection of consumers and users. As explained within this analysis, the main approach has always been to consider individuals adequately protected if provided with all the relevant information.

Empowering individuals with information disclosure and the promotion of transparency principle finds some limitations within the context of commercial practices that leverage cognitive bias. As shown in this empirical analysis, individuals may not be aware of the employment of Dark Patterns, regardless their digital knowledge or their education.

3.7 Limitations and Future Research

Despite relevant insights given by this experimental analysis, there are some limitations of this study that deserve attention.

First off, the proposed data protection service was offered to participants in a context in which there was absence of money endowment. Despite participants could not foresee the outcome of their choice (accept and continue vs refuse), they were not actually motivated by an economic incentive, since they were not physically concluding a transaction. It would be interesting to replicate this experiment with money endowment conditions, in order to see possible effects in real-case contexts.

Secondly, this analysis has provided results on trust in the short run; it would be interesting to see possible effects in the long run. We believe that exposing individuals to Dark Patterns several times could possibly give interesting results on their perceived trust, thus on their awareness.

Additionally, it would be promising to integrate qualitative interviews to get additional insights on individuals' reaction while facing Dark Patterns. Another relevant starting point for future research would be to monitor individual facial expressions, through suitable tracking systems, when participants are exposed to different UIs.

CONCLUSIONS

This analysis has tried to explore the possibilities of regulation of Dark Patterns, promoting a fairness-oriented holistic approach, that has gained recent interest from scholars.

Dark Patterns are increasingly employed within the online environment and recent contributions show that they are particularly effective at eliciting specific individual choices or behaviours, that are the ones in the company's best interest.

This kind of UIs leverage power and information asymmetries between consumers and professionals and generate relevant shortcomings in current European regulatory framework, insomuch as they are generally capable to get round existing legal tools.

In 2019, the European Parliament expressed its opinion on Dark Patterns, and referred to the ePrivacy Directive, to the GDPR and to the UCPD as main legal tools to address these online commercial practices.

Conjugating legal tools from different fields, thanks to the promotion of the principle of fairness that acts as *trait d'union*, seems particularly interesting to achieve a better protection of consumers, considering increasing threats toward them within the digital market.

From one side, data protection aims to protect autonomous decision-making by data subjects and includes, more broadly, the safeguarding of a secure and fair personal data processing environment. The GDPR gives many possibilities to successfully address protection of users, to the extent that, from one side, it prescribes fair, transparent and lawful data processing, and, from the other, it expressly requests that consent shall be freely given, specific, informed, and unambiguous, before that data processing can take place. Further, the GDPR promotes two key principles, namely privacy-by-design and privacy-by default, that makes possible to attain data minimization and maximum data protection for individuals.

Despite high potential of the GDPR to correctly address these online commercial practices, several shortcomings emerge when it comes to the principle of transparency, that represent a pillar within data protection regulation: one might argue that the more transparent a dark pattern, the more likely a user will consent to data processing when there is a significant power imbalance between the two parties. However, especially in the context of commercial practices exploiting individual cognitive bias, transparency principle finds many limitations: increasing the amount of information does not counteract the effects of these UIs.

Conjugating data protection regulation with legal tools from consumer protection regime seems promising since consumer protection acquis provides a significant number of ex-ante, ex-post, and preventative measures that could be deployed against a variety of Dark Patterns. Specifically, it is relevant to acknowledge the Unfair Commercial Practices Directive (UCPD), the Unfair Contract Terms Directive (UTD) and the Consumer Rights Directive, that are capable to cover the overall transaction process, ensuring, on the other side, a fair balance of the interests in place.

Further possibilities emerge from competition law field, in view to achieve a better protection of consumers. Tools from this regime would help to prevent the exploitation of consumers by dominant firms

through the imposition of unfair conditions regarding the processing of personal data. Accordingly, there has been a recent attempt from the Bunderskartellamt to integrate data protection interests into competition analysis while pursuing an investigation into Facebook's terms of service to examine whether consumers are sufficiently informed about the type and the extent of personal data collected.

European Institutions are now focusing on additional regulations for the digital market and the related growth of innovation, trying, from one side, to ensure effective competition within the digital market and, from the other, to protect fundamental rights of individuals. There are three proposals that work in this direction and deserve to be acknowledged, namely the proposal for a regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act), the proposal for a regulation on contestable and fair markets in the digital sector (DMA) and proposal for a regulation on a Single Market for Digital Services (DSA).

It follows, that, in the context of increasing complexity of the markets and the introduction of new technologies giving businesses unprecedent possibilities to track and monitor individual preferences, a fairness-oriented holistic approach seems particularly promising to attain the welfare of consumers and of the economy as a whole.

Nonetheless, the European Institutions should embrace a less optimistic approach while drafting regulations for the protection of consumers and users. Empowering individuals with information disclosure and the promotion of transparency finds some limitations, especially in the context of online commercial practices that leverage cognitive bias.

Accordingly, the empirical analysis, developed in chapter 3 of this analysis, shows that individuals are not much aware of the use of Dark Patterns, with one exception, represented by Time Pressure. Additionally, we tested education and digital literacy as moderator and our analysis was able to prove that they do not have such effect: awareness about Dark Patterns cannot be explained with previous education and knowledge about the digital environment.

To conclude, this analysis gives possible insights to legal makers and scholars to further explore the phenomenon of Dark Patterns and to reflect about the real effectiveness of current legal tools. One of the main issues is represented by the rational consumer benchmark that has been widely promoted by European Institutions and by the CJEU, in the form of the average consumer benchmark. When it comes to cognitive bias, the rational decision-making model finds many limitations in the prediction of actual behaviours of individuals.

APPENDIX

APPENDIX A (Introduction & Literature Review)

Category	Variant	Description	Source
Nagging		Repeated requests to do something the firm prefers	Gray et al. (2018)
Social proof	Activity messages	False/misleading Notice that others are purchasing, contributing	Mathur et al. (2019)
	Testimonials	False/misleading positive statements from customers	Mathur et al. (2019)
Obstruction	Roach motel	Asymmetry between signing up and canceling	Gray et al. (2018), Mathur et al. (2019)
	Price comparison prevention	Frustrates comparison shopping	Brignull (2020), Gray et al. (2018), Mathur et al. (2019)
	Intermediate currency	Purchases in virtual currency to obscure cost	Brignull (2020)
	Immortal accounts	Account and consumer info cannot be deleted	Bösch et al. (2016)
Sneaking	Sneak into basket	Item consumer did not add is in cart	Brignull (2020), Gray et al. (2018), Mathur et al. (2019)
	Hidden costs	Costs obscured/disclosed late in transaction	Brignull (2020), Gray et al. (2018), Mathur et al. (2019)
	Hidden subscription/ forced continuity	Unanticipated/undesired automatic renewal	Brignull (2020), Gray et al. (2018), Mathur et al. (2019)
	Bait and switch	Customer sold something other than what's originally advertised	Gray et al. (2018)
Interface interference	Hidden information/aesthetic manipulation	Important information visually obscured	Gray et al. (2018)
	Preselection	Firm-friendly default is preselected	Bösch et al. (2016), Gray et al. (2018)
	Toying with emotion	Emotionally manipulative framing	Gray et al. (2018)
	False hierarchy/pressured selling	Manipulation to select more expensive version	Gray et al. (2018), Mathur et al. (2019)
	Trick questions	Intentional or obvious ambiguity	Gray et al. (2018), Mathur et al. (2019)
	Disguised ad	Consumer induced to click on something that isn't apparent ad	Brignull (2020), Gray et al. (2018)
	Confirmshaming	Choice framed in a way that makes it seem dishonorable, stupid	Brignull (2020), Mathur et al. (2019)
	Cuteness	Consumers likely to trust attractive robot	Cherie & Catherine (2019)
Forced action	Friend spam/social pyramid/address book leeching	Manipulative extraction of information about other users	Brignull (2020), Bösch et al. (2016), Gray et al. (2018)
	Privacy Zuckering	Consumers tricked into sharing personal info	Brignull (2020), Bösch et al. (2016), Gray et al. (2018)
	Gamification	Features earned through repeated use	Gray et al. (2018)
	Forced Registration	Consumer tricked into thinking registration necessary	Bösch et al. (2016)
Scarcity	Low stock message	Consumer informed of limited quantities	Mathur et al. (2019)
	High demand message	Consumer informed others are buying remaining stock	Mathur et al. (2019)
Urgency	Countdown timer	Opportunity ends soon with blatant visual cue	Mathur et al. (2019)
	Limited time message	Opportunity ends soon	Mathur et al. (2019)

[555]

[555] Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, *13*(1), 43-109.

APPENDIX B (Survey)

Introduction

Prolific ID

Consent

How will my confidentiality be protected?

Your answers will be kept completely anonymous. If you give us your permission by completing and submitting the survey, we plan to discuss/publish the results in an academic forum. In any publication, information will be provided in such a way that you cannot be identified. Only members of the research team will have access to the original data set, which will be stored on a password-locked computer. Before your data is shared outside the research team, any potentially identifying information (such as any significant experience you may describe) will be removed. Once identifying information has been removed, the data you provide may be used by the research team, or shared with other researchers, for both related and unrelated research purposes in the future. Your (anonymous) data may also be made available in online data repositories such as the Open Science Framework, which allow other researchers and interested parties to access the data for further analysis.

Consent statement

-I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written plain language statement.

-I understand that my participation in this study is entirely voluntary.

-I understand that after I click the button below this consent form will be retained by the researcher.

-I acknowledge that:

I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;The project is for the purpose of

research;I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;Any information I provide will be completely anonymous;Only members of the research team will have access to my raw data, which will be stored on a password-locked computer. Once all identifiable information has been removed, my anonymous responses may be shared with other researchers or made available in online data repositories.

I consent to participating in this research, and to the responses I provide being used as indicated above:

Accept

Decline

Control Condition

*Hacking and data theft are significantly increasing. You are offered a **six months data protection service free of charge**. After 6 months period, **you will be billed $8.99 per month** for continued data protection. You can cancel this service at anytime.*

Accept and Continue

Refuse

Trust Scale Control

To what extent do you agree with the following statements about the company? (between 1=disagree entirely and 7=agree entirely)

	Disagree Entirely	Moderately Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Moderately Agree	Agree Entirely

This company's products give me a sense of security	○	○	○	○	○	○	○
This company's products give me a sense of security	○	○	○	○	○	○	○
I trust the quality of this company's products	○	○	○	○	○	○	○
Buying this company's products is a quality guarantee	○	○	○	○	○	○	○
This company is interested in its customers	○	○	○	○	○	○	○
This company is forthright in its dealing with consumers	○	○	○	○	○	○	○
This company is honest with its customers	○	○	○	○	○	○	○

Urgency Condition

25

This is a limited time offer, hurry up before it expires!

Hacking and data theft are significantly increasing. You are offered a ***six months data protection service free of charge****. After 6 months period,* ***you will be billed $8.99 per month*** *for continued data protection. You can cancel this service at anytime.*

Accept and continue

Refuse

Trust Scale DP 1

To what extent do you agree with the following statements about the company? (between 1=disagree entirely and 7=agree entirely)

	Disagree Entirely	Moderately Disagree	Slightly disagree	Neither agree nor disagree	Slightly Agree	Moderately Agree	Agree Entirely
This company's products give me a sense of security	○	○	○	○	○	○	○

This company's products give me a sense of security	○	○	○	○	○	○	○
I trust the quality of this company's products	○	○	○	○	○	○	○
Buying this company's products is a quality guarantee	○	○	○	○	○	○	○
This company is interested in its customers	○	○	○	○	○	○	○
This company is forthright in its dealing with consumers	○	○	○	○	○	○	○
This company is honest with its customers	○	○	○	○	○	○	○

Default Conditon

Hacking and data theft are significantly increasing. You are offered a ***six***

***months data protection service free of charge**. After 6 months period, **you will be billed $8.99 per month** for continued data protection. You can cancel this service at anytime.*

✘ Accepte and Continue

Refuse

Trust Scale DP 2

To what extent do you agree with the following statements about the company? (between 1=disagree entirely and 7=agree entirely)

	Disagree Entirely	Moderately Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Moderately Agree	Agree Entirely
This company's products give me a sense of security	○	○	○	○	○	○	○
This company's products give me a sense of security	○	○	○	○	○	○	○
I trust the quality of this company's products	○	○	○	○	○	○	○

Buying this company's products is a quality guarantee	○	○	○	○	○	○	○
This company is interested in its customers	○	○	○	○	○	○	○
This company is forthright in its dealing with consumers	○	○	○	○	○	○	○
This company is honest with its customers	○	○	○	○	○	○	○

Social Proof Condition

Hacking and data theft are significantly increasing and 9/10 of our customers have been subject to data breach prior to submit our service. You are offered a ***six months data protection service free of charge****. After 6 months period,* ***you will be billed $8.99 per month*** *for continued data protection. You can cancel this service at anytime.*

Accept and Continue

Refuse

To what extent do you agree with the following statements about the company? (between 1=disagree entirely and 7=agree entirely)

	Disagree Entirely	Moderately Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Moderately Agree	Agree Entirely
This company's products give me a sense of security	○	○	○	○	○	○	○
This company's products give me a sense of security	○	○	○	○	○	○	○
I trust the quality of this company's products	○	○	○	○	○	○	○
Buying this company's products is a quality guarantee	○	○	○	○	○	○	○
This company is interested in its customers	○	○	○	○	○	○	○

This company is forthright in its dealing with consumers	○	○	○	○	○	○	○
This company is honest with its customers	○	○	○	○	○	○	○

Risk Aversion

Option A	Option B
1/10 of $2.00, 9/10 of $1.60	1/10 of $3.85, 9/10 of $0.10
2/10 of $2.00, 8/10 of $1.60	2/10 of $3.85, 8/10 of $0.10
3/10 of $2.00, 7/10 of $1.60	3/10 of $3.85, 7/10 of $0.10
4/10 of $2.00, 6/10 of $1.60	4/10 of $3.85, 6/10 of $0.10
5/10 of $2.00, 5/10 of $1.60	5/10 of $3.85, 5/10 of $0.10
6/10 of $2.00, 4/10 of $1.60	6/10 of $3.85, 4/10 of $0.10
7/10 of $2.00, 3/10 of $1.60	7/10 of $3.85, 3/10 of $0.10
8/10 of $2.00, 2/10 of $1.60	8/10 of $3.85, 2/10 of $0.10
9/10 of $2.00, 1/10 of $1.60	9/10 of $3.85, 1/10 of $0.10
10/10 of $2.00, 0/10 of $1.60	10/10 of $3.85, 0/10 of $0.10

Indicate the case in which you would switch from hypothetical situation A to hypothetical situation B

1
2
3
4

5
6
7
8
9
10

Intertemporal Choice

Payoff alternative	Payment option A (pays amount below in 1 month)	Payment option B (pays amount below in 3 months)
1	$500	$501.67
2	$500	$502.51
3	$500	$503.34
4	$500	$504.18
5	$500	$506.29
6	$500	$508.40
7	$500	$510.52
8	$500	$512.65
9	$500	$514.79
10	$500	$516.94
11	$500	$521.27
12	$500	$530.02
13	$500	$543.42
14	$500	$566.50
15	$500	$590.54

Indicate the case in which you would switch from hypothetical situation A to hypothetical situation B

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Digital Literacy

How familiar are you with the following computer and Internet-related items? Please choose a number between 1 and 5, where 1 represents *no understanding* and 5 represents *full understanding* of the item.

	No understanding	Slight understanding	Understanding	Moderate understanding	Full understandir
JPEG	○	○	○	○	○
Frame (Fps)	○	○	○	○	○
Setting	○	○	○	○	○

Newsgroup	○	○	○	○	○
PDF	○	○	○	○	○
Refresh/Reload	○	○	○	○	○
Advanced Search	○	○	○	○	○
Proxypod	○	○	○	○	○
Weblog	○	○	○	○	○
JFW	○	○	○	○	○
Bookmark	○	○	○	○	○
Bookmarklet	○	○	○	○	○
Spyware	○	○	○	○	○
Bcc (on e-mail)	○	○	○	○	○
Blog	○	○	○	○	○

How familiar are you with the following computer and Internet-related items? Please choose a number between 1 and 5, where 1 represents *no understanding* and 5 represents *full understanding* of the item.

	No understanding	Slight understanding	Understanding	Moderate understanding	Full understand
Tag	○	○	○	○	○

Tabbed Browsing	○	○	○	○	○
RSS	○	○	○	○	○
Wiki	○	○	○	○	○
Maleware	○	○	○	○	○
Social Bookmarking	○	○	○	○	○
Podcasting	○	○	○	○	○
Phishing	○	○	○	○	○
Web Feeds	○	○	○	○	○
Firewall	○	○	○	○	○
Filtibly	○	○	○	○	○
Cache	○	○	○	○	○
Widget	○	○	○	○	○
Select "Understanding"	○	○	○	○	○
Favorites	○	○	○	○	○
Torrent	○	○	○	○	○

Demographics & Education

Education

No schooling completed

Some high school, no diploma

High school graduate, diploma or equivalent

Bachelor's Degree

Master's Degree

PhD

How often (on average) do you shop online?

More than once a week

About once per week

Several times per month

About once a month

Once in a few months or longer

Never

Powered by Qualtrics

Socioeconomic Status Ladder

Think of this ladder as showing where people stand in their communities.

People define community in different ways. Please define it in whatever way is most meaningful to you.

At the top of the ladder are the people who have the highest standing in their community.

At the bottom are the people who have the lowest standing in their community.

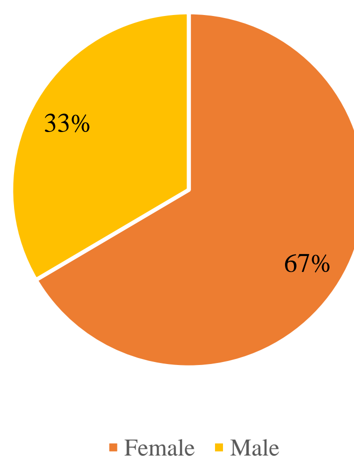
Where would you place yourself on this ladder?

Place an **X** on the rung where you think you stand at this time of your life relative to other people in your community.

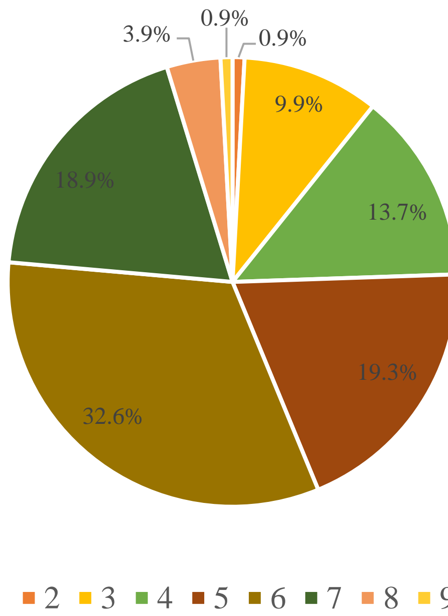
APPENDIX C (Tables and Charts from Results)

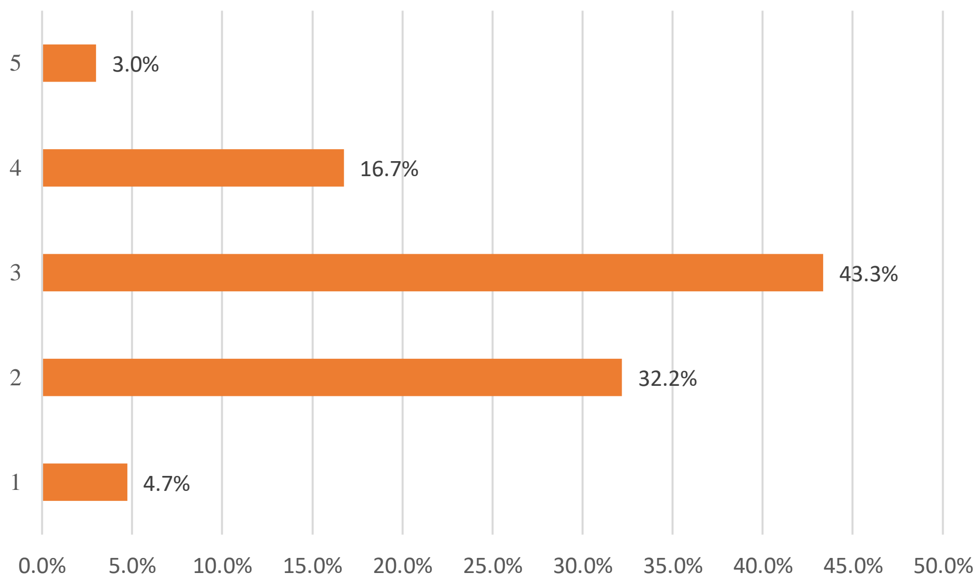
Demographics

Gender

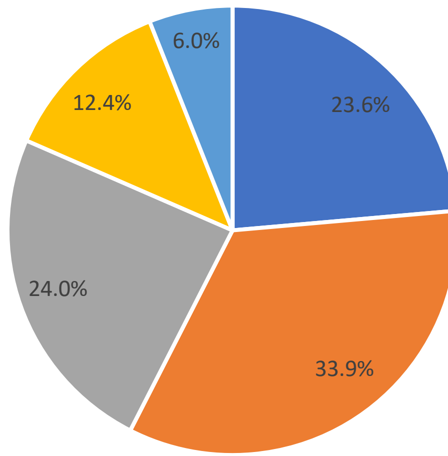


Female Male


Socioeconomic status
3.9%
0.9%
0.9%
9.9%
18.9%
13.7%
19.3%
32.6%
2 3 4 5 6 7 8 9


Education
5
3.0%
4
16.7%
3
43.3%
2
32.2%
1
4.7%
0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0% 40.0% 45.0% 50.0%

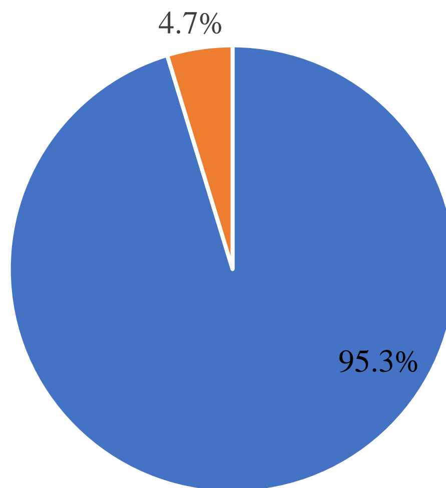
Online Shopping Habits



More than once a week
About once per week
Several times per month
About once a month
Once in a few months or longer

Nationality

4.7%



European
Non European

Moderation Analysis - test between-subjects effects

Tests of Between-Subjects Effects

Dependent Variable: Trust

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	42,754[a]	14	3,054	2,146	,011
Intercept	898,374	1	898,374	631,246	,000
TimePressure	13,968	1	13,968	9,814	,002
DefaultOption	1,061	1	1,061	,746	,389
SocialProof	,194	1	,194	,137	,712
DLXED	,020	1	,020	,014	,906
RiskAversion	1,232	1	1,232	,865	,353
TimePressure * DefaultOption	,000	0	.	.	.
TimePressure * SocialProof	,000	0	.	.	.
TimePressure * DLXED	1,759	1	1,759	1,236	,268
TimePressure * RiskAversion	2,408	1	2,408	1,692	,195
DefaultOption * SocialProof	,000	0	.	.	.
DefaultOption * DLXED	,081	1	,081	,057	,812
DefaultOption * RiskAversion	1,284	1	1,284	,902	,343
SocialProof * DLXED	,172	1	,172	,121	,729
SocialProof * RiskAversion	,424	1	,424	,298	,586
DLXED * RiskAversion	,478	1	,478	,336	,563
TimePressure * DefaultOption * SocialProof	,000	0	.	.	.
TimePressure * DefaultOption * DLXED	,000	0	.	.	.
TimePressure * DefaultOption * RiskAversion	,000	0	.	.	.
TimePressure * SocialProof * DLXED	,000	0	.	.	.
TimePressure * SocialProof * RiskAversion	,000	0	.	.	.
TimePressure * DLXED * RiskAversion	2,399	1	2,399	1,686	,196
DefaultOption * SocialProof * DLXED	,000	0	.	.	.
DefaultOption * SocialProof * RiskAversion	,000	0	.	.	.
DefaultOption * DLXED * RiskAversion	,000	0	.	.	.
SocialProof * DLXED * RiskAversion	1,135	1	1,135	,797	,373
TimePressure * DefaultOption * SocialProof * DLXED	,000	0	.	.	.
TimePressure * DefaultOption * SocialProof * RiskAversion	,000	0	.	.	.
TimePressure * DefaultOption * DLXED * RiskAversion	,000	0	.	.	.
TimePressure * DefaultOption * SocialProof * DLXED	,000	0	.	.	.
TimePressure * DefaultOption * SocialProof * RiskAversion	,000	0	.	.	.
TimePressure * DefaultOption * DLXED * RiskAversion	,000	0	.	.	.
TimePressure * SocialProof * DLXED * RiskAversion	,000	0	.	.	.
DefaultOption * SocialProof * DLXED * RiskAversion	,000	0	.	.	.
TimePressure * DefaultOption * SocialProof * DLXED * RiskAversion	,000	0	.	.	.
Error	310,252	218	1,423		
Total	3878,500	233			
Corrected Total	353,006	232			

a. R Squared = ,121 (Adjusted R Squared = ,065)

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ABSTRACT

This analysis aims at exploring the possibilities of regulation of Dark Patterns, promoting a fairness-oriented holistic approach, that has gained recent interest from scholars.

In chapter 1, there is a first focus on the neoclassical theory of consumption and the rational decision-making model, that represent the key pillars on which consumer protection has originally been developed.

The neoclassical theory of consumption, based on the idea of consumer as *homo oeconomicus*, converges into the wide area of Neoclassical Economics, that is considered as mainstream economics and has been adopted in microeconomics to study the market equilibrium, hence the forces of supply and demand that generate it. There are three general assumptions that represent the core of the Neoclassical Model: consumers are expected to act as perfectly rational actors, who aim to maximizing their utility in their decision making process; information symmetry is assumed between the consumer and the supplier, thus knowledge of products and information on transaction conditions are supposed to be complete; finally, real markets resemble a model of perfect competition, where competition eliminates monopoly profits disrupting a competitive distribution of income.

On the other hand, Rational Choice Theory, firstly developed between the 18th and the 19th century, tries to understand the economy by defining the actions of one individual and adding up what would happen if everyone acted like them, and to do this, it takes into-account the *homo oeconomicus*, or rational consumer, to settle on what the average, or representative, person looks like, and the way in which she acts.

Relying on the paradigm of the rational consumer, EU institutions, from the 60s of last century, started to develop an interest toward consumers and their protection, progressively integrating the recognition of consumer protection rules within the regulation of the European Market. One of the main theoretical underpinnings of the EU Internal Market is represented by the safeguard of competition, hence by the development of a freely competitive market under the libertarian perspective. According to Alpa and Catricalà (i.e., "Diritto dei consumatori"), with the introduction of the discipline of competition and the market, the interests of consumers are necessarily invested in a direct way: therefore, they should not be considered *sub species* of the protection of competition, but *sub species* of the market protection.

European Institutions began to address consumer protection, from one side, including suitable provisions in primary law (i.e., the Treaties) and, from the other, promoting secondary law tools and programs for implementation of adequate protection of consumers (i.e., "Preliminary Programme of the European Economic Community for a Consumer Protection and Information Policy" and "Second Programme of the European Economic Community"). In line with their attempt to embed the paradigm of the rational consumer, the European Institutions have promoted the idea of a consumer who requires adequate information (and no more) to fulfil her role in the market. According to Willet (i.e., "Fairness in consumer contracts"), consumer information and education seem to have been given an increasingly high priority over the years.

At the beginning of the 90s, the European Parliament, together with the European Council, enacted the Unfair Contract Terms Directive 93/13/EEC (UTD). Central in the Directive is the principle of fairness; with respect to this, Article 3 of the Directive set out the *test of unfairness*, according to which a contractual term, which has not been individually negotiated, shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer. Additionally, according to article 5 of the Directive, in case of contracts where all or certain terms offered to the consumer are in written form, these terms must always be drafted in plain, intelligible language; additionally, where there is doubt about the meaning of a term, the interpretation most favourable to the consumer shall prevail. On the other hand, article 6 of the Directive prohibits any unfair terms used in a contract concluded between a seller or supplier and a consumer. Member States shall ensure that unfair terms in a contract are not binding on the consumer and the contract shall remain in place only if it is capable of continuing in existence without the unfair terms.

At the turn of the 21st century, literature on *prosumption* has gained particular centrality, as a result of the advent of Web 2.0 technologies and, hereafter, of social media. *Prosumption* finds its origin in the second half of the 20th century, after the II World War, and basically has made consumers be central within the production process, especially of services.

From a European policy making point of view, at the turn of the 21st century, the Commission set out the "Consumer Policy Action Plan 1999-2001", stressing out that the twin forces of the globalisation of markets and the wide dissemination of new communication and information processing technologies set in train significant economic and social changes. A closer, more cooperative relationship between consumers and businesses, acting as equal partners, was considered as being essential.

Reflecting this approach, new directives and regulations have been enacted over the last 20 years within the EU legal framework. First off, the coordination between Member States within the field of consumer protection, envisaged in the Treaty of Amsterdam, was enhanced with the introduction of the Unfair Commercial Practices Directive (Directive 2005/29/EC), that aim at *full harmonization*. Specifically, under article 3 of the Directive, Member States can no longer introduce national measures that offer more (or less) protection than is offered by this legal tool.

The UCPD concerns unfair business-to-consumer (B2C) commercial practices in the internal market, with the objective not only to protect consumers from unfair commercial practices, but also to promote transnational activities within the internal market.

Unfair commercial practices (i.e., practices that are contrary to the requirements of professional diligence and materially distort, or are likely to materially distort, the economic behaviour with regard to the product of the average consumer, or of the average member of the group when a commercial practice is directed to a particular group of consumers) are prohibited under article 5 of the UCPD. Enhanced safeguard is given to particularly vulnerable consumers because of their mental or physical infirmity, age, or credulity.

Further, commercial practices shall be considered unfair, if they are misleading, according to articles 6 and 7 of the UCPD, or if they are aggressive according to articles 8 and 9.

What significantly emerges from the UCPD is the figure of the average consumer, that was formalized in this context, but that finds its origins in previous proceedings of the European Court of Justice, particularly in the Gut Springenheide case (1998), in which it was firstly drafted its definition (i.e., reasonably well-informed and reasonably observant and circumspect individual).

Subsequently, the European Institutions enacted the Directive 2011/83/EU on consumer rights. The Consumer Rights Directive (CRD) regulates any contract concluded between a trader and a consumer, both in presence, distance and off-premises contracts. There are at least three aspects that deserve to be analysed. First off, the information disclosure requirements; secondly, the right of withdrawal, recognized to the consumer in Article 9 of the Directive; thirdly, the requirement of consent: consent cannot be presumed, but must be explicitly expressed by the consumer.

What emerges from all the provisions enacted by the European Institutions within the field of consumer protection is the paradigm of a rational consumer. Specifically, the average consumer benchmark, well summarizes the perspective of the consumer promoted by the European institutions.

Before giving the definition of the average consumer benchmark in the Gut Springenheide case, the CJEU had previously expressed its expectations toward the consumers. The first relevant case in which the CJEU made this attempt is the Cassis de Dijon case. In the proceeding, the Court maintained that the consumer is expected to read product labels or, at least, take note of the indication of the country of origin and the alcoholic percentage presented in the label. This orientation goes under the labelling doctrine, that reflects the principle of information disclosure and can be seen as a part of the information paradigm, according to which increasing the amount of information and establishing full transparency help consumers with their decisions.

Further, in 1990, the CJEU ruled the GB-INNO-BN case, stressing again the idea of a rational aware consumer that is capable to detect all the relevant information. Same position was assumed by the Court in the context of the Nissan case, with the only difference that, within that context, the Court applied a quantitative test to determine the misleading nature of the commercial practice.

Moreover, in 1994, the Court had to deal with the Clinique case, focusing on the lawfulness of the use of the name Clinique for an Estée Lauder cosmetic in Germany; the CJEU, in contrast to the orientation promoted in Nissan case, applied an abstract test of the average consumer.

In 1995, the CJEU ruled the Mars Case, promoting for the first time the benchmark of the "reasonably circumspect consumer". Additionally, in 1996, with Graffione case, the Court promoted the idea of a consumer benchmark based on a national consumer rather than a European one.

Finally, in 1998, the CJEU promoted the average consumer benchmark within the context of the Gut Springenheide case, defining it as reasonably well-informed and reasonably observant and circumspect individual. Further cases, in which the Court adopted the same orientation are Adolf Darbo case and Douwe Egberts v Westrom Pharma case.

With the advent of prosumption, consumers have not only become more central within the production process, but have also started to release valuable information, namely their namely their personal data.

Data have increasingly acquired central economic value, and this has provoked many concerns both for the protection of individuals and the regulation of the digital market. The high demand for personal information, the complexity of the new tools of analysis and the increasing numbers of sources of data collection, have generated an environment in which data barons have a control over digital information which is no longer counterbalanced by the user's self-determination. Users have been increasingly exposed to risks and the EU institutions have progressively tried to address this problem, building a suitable legal framework over the years, and providing data protection to EU users.

The first European Directive that aimed to regulate the protection of individuals about the processing of personal data and the free movement of such data is Directive 95/46/EC. This directive was then replaced by the GDPR, in 2018.

The GDPR, taking back some of the conditions and definitions of the Data Protection Directive, presents, in Article 5, the principles to processing of personal data. Among them, it is possible to depict lawfulness, fairness and transparency, that are the ones that particularly matter within the purpose of this analysis.

Article 6 of the GDRP, concerning the lawfulness of the processing, lists all the conditions under which processing shall be lawful: processing shall be lawful only if the data subject has given consent to the processing of his or her personal data, for one or more specific purposes, or processing is necessary for the performance of a contract to which the data subject is party; alternatively, other criteria are envisaged, for instance, the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller.

Consent shall be freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she signifies agreement to the processing of personal data relating to him or her, by a statement or by a clear affirmative action. Consent may be withdrawn by the user at any time.

In line with consumer protection regime, also the GDPR dedicates a full section to the information that shall be provided to the data subject, both in case where personal data are collected from the data subject (article 13) and in case where personal data are not obtained from the data subject (article 14).

More generally speaking, it seems possible to identify at least three different common points between data protection and consumer protection: the information requirements to be met by the trader or the professional, the right to withdraw (among other rights) and the jurisdictional protection. Data protection and consumer protection can be considered as two side of the same coin: they both focus on the protection of a weaker physical subject, in one case represented by the consumer and on the other represented by the data subject, acting on the market, either the market of goods and services or the digital market.

As a result of the development of network activities, together with the exploitation of Big Data, users have been increasingly exposed to risks related to their protection and, in particular, to the protection of their data. Recently, various enforcement agencies have shown specific interest for remedies to the commercial behaviour

exploiting the increasing information and power asymmetries between consumers and firms. Among recently introduced commercial practices taking advantage of these asymmetries and endangering consumers and users, it is possible to identify Dark Patterns.

Data represent a valuable digital asset for companies, that can exploit them in their IP portfolio to carry out unfair commercial practices, and, more generally to jeopardise competition. It follows then, there is a growing interaction between competition, data protection and consumer law. Enforcement actions, to counteract these new risks, demonstrate clear interconnections between legal fields that have been traditionally applied and enforced in isolation.

What makes possible to attain a holistic approach is the principle of fairness, that finds its application both in consumer protection regime, in data protection field and in competition law.

Fairness is a broad concept; Willet in his analysis (i.e., "Fairness in Consumer Contracts"), divides it into procedural fairness and substantive fairness.

The first element refers to the process leading to the contract, that, from the point of view of the consumer, is affected by three main elements: the level of transparency, the presence of alternative options and the bargaining power of the contracting parties.

On the other side, substantive fairness reflects the substantive features of the agreement, in other words the nature of the contract terms, their compliance with default rules and standards, and the correct balance between the contractual terms within the contract, namely whether the unfairness of a term can be counterbalanced by other terms that are especially favourable to the consumer.

Standard form contracts represent a central point in the contract discipline and in the analysis of fairness, since they represent the supplier's attempt to plan for eventualities of the relationship, such as disputes as to the mode/quality of performance, financial responsibilities, and the withdrawal of service.

There are two main approaches to define the attitude to take to the particular types of terms that are used within the contract and the way in which they are used: the freedom-oriented approach and the fairness-oriented approach.

The fairness-oriented approach, which is central within this analysis, in contrast to the freedom-oriented one, is less concerned with the freedom of individuals and more concerned with the context. Additionally, it views the parties other than as abstract persons, focusing rather on the characteristics of consumers and traders. It gives attention to the way in which the physical, property, social and economic interest of the parties are affected by substantive terms, looking, on the other side, at the factors that might affect the abilities of such parties to protect their interests in the process leading to the contract.

In the contract discipline, the weaker party is perceived to be the consumer and, since the agenda of the fairness-oriented perspective is to fairly balance the interests of the parties, normally this means protecting the interests of the perceived "weaker" party.

Fairness is relevant not only with respect to the objective to fairly balance the interests of the parties, but it often forms part of broader agendas such as welfarism, efficiency and the EC market building; accordingly,

Willet refers to a fairness umbrella (i.e., fairness as an overarching principle within the different agendas in the EU community).

Focusing on the substantive terms within the contract, the fairness-oriented approach, in contrast to the freedom-oriented one, does take account of the way that terms affect the interests of the parties. An important aspect of the fairness/protection of consumer interests in the context of consumer contracts is the idea that consumers enter contracts in order to sustain and enhance the private sphere of life, rather than to make a profit. Default rules are considered to be a good solution under this perspective, since they are often based on some kind of balancing of the interests of the parties. Accordingly, the use of default rules is central in the EU contract discipline and the UTD specifically aims to protect consumers from standard contract terms that distort the balance between their interest and the trader's ones.

On the other hand, for what concerns the process leading to the contract, the fairness-oriented approach gives substantial relevance to the principle of transparency: the lack of transparency of the contract terms leads to a lack of informed consent and it may also undermine competition. Accordingly, if the terms are not transparent and consumers cannot understand and compare the offerings of different traders, there will be no incentive for traders to compete with one another for the business of consumers. The ability to give informed consent must take precedence over the existence as to what to agree to or the opportunity to bargain for an improvement. If a term jeopardises the consumer's substantive interest and it is not reasonably transparent, then this should be enough for a finding of unfairness.

With specific reference to consumer protection, it is relevant to take into-account the UTD and the UCPD, in order to understand the application of the principle of fairness within this field.

In the UTD, fairness is strictly connected to the principle of transparency, which seems to be relevant to get consumer protection and stimulate cross-national trade. Particularly, information disclosure and education (as a result of transparency) trigger a greater consumer confidence, in buying goods and services in Member States other than their own. This is translated into a more effective internal trade and into a stronger market integration. Improved competition, in turn, forces traders to make some terms fairer in substance, that leads to a greater transparency.

The test of unfairness is promoted in Article 3 of the Directive and specifically aims at assessing whether a contractual term is capable to generate a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer.

This test has been applied by the Court in many instances, among others, in Oceano case and in Freiburger case.

In the first proceeding, the Court recognized that un unfair term included in a contract concluded between a consumer and a seller or supplier, without being individually negotiated, had to be classed as unfair for the purposes of the Directive. On the other hand, in Freiburger case, the Court clarified the purpose of the Annex to the UTD, which presents an indicative and non-exhaustive list of unfair terms; in particular, the CJEU maintained that a term is not automatically unfair on the basis that it is on list presented in the Annex; in

accordance with Article 4 of the Directive, all the circumstances must be taken into-account. Specifically, it is necessary to consider also the consequences of the term under the law applicable to the contract and this requires that consideration should have been given to the national law.

In both cases, the CJEU stated that the final decision was expected to be taken by the national court.

Moving to the UCPD, here the concept of fairness is bounded to the promotion of the EU internal market and trade; accordingly, the development of fair commercial practices within the area without internal frontiers is vital for the promotion of the development of cross border activities.

In data protection field, it is relevant to analyse the implementation of the principle of fairness in the GDPR. Within the regulation, this principle seems to have two main broad interpretations: fair balancing and procedural fairness. What clearly emerges from the provisions of the GDPR is an attempt to balance the interests of the different parties through the implementation of specific procedures that can ensure a certain level of transparency and lawfulness in the data processing. The GDPR does not prescribe in detail the necessary fairness to be implemented in the data processing: the data controller, looking at the specific circumstances and the context in which the personal data are processed, adopt her own level of fairness in order to ensure a fairly transparent and fairly lawful processing. The difference between “mere” transparency or lawfulness and “fair” transparency or lawfulness is the adoption of additional safeguards that can effectively rebalance the unfair imbalance between the data controller and the subject in specific circumstances. It follows than that procedural fairness should be considered more an obligation of results rather than an obligation of means.

Additional insights on the implementation of such principle within the online environment comes from the Ecommerce Directive; here the reference is made to fair trading and to fairness towards clients and other members of the profession, reflecting from one side the application of the principle of fairness in the context of trade, hence competition law and on the other side the application of the same principle in the context of consumer protection.

Finally, within the context of competition law, the concept of fairness remains somewhat generic, and its role is less explicit than in regimes of data protection and consumer protection law. Rather than a substantive benchmark to evaluate anticompetitive behaviours and abuses, fairness can be regarded as an inherent objective or outcome of competition enforcement. The EU institutions and the EU competition law, by intervening against anticompetitive practices, aim at protecting the competitive process in the internal market to the benefit of consumers, competitors, and the economy as a whole.

Currently, European Institutions are working on proposals for regulation capable to correctly address innovation and the exponential growth of the digital market.

From one side, they are trying to correctly address products and services from Artificial Intelligence (i.e., “Proposal for a Regulation laying down harmonised rules on artificial intelligence)”.

From the other, they are trying to implement regulations on contestable and fair markets in the digital sector (i.e., “Proposal for a regulation of the European Parliament and of the Council on contestable and fair

markets in the digital sector (Digital Markets Act)") and on the correct placing and functioning of digital services (i.e., "Proposal for a Regulation of the European Parliament and of the Council on a single market for Digital Services (Digital Service Act)"), amending the e-commerce Directive.

In the proposals for regulation of the digital market and the digital services, there is explicit recall to the principle of fairness; from one side, the Digital Markets Act aims at correctly addressing and limiting unfair practices in the digital sector, from the other, the Digital Service Act aims at promoting more fairness, transparency, and accountability for digital services' content moderation processes, ensuring that fundamental rights are respected, and guaranteeing independent recourse to judicial redress. On the other hand, in case of Artificial Intelligence Act, despite the absence of reference to that principle, the idea is still to ensure a balance between AI systems and individual rights.

In chapter 2, we initially explore a wide array of behavioural studies and contributions show limitations of the Neoclassical theory of consumption and, more specifically, of the rational decision-making model.

First off, authors such as Allais, Tversky, Kahneman and Bar-Hillel, through empirical studies, have been able to prove the limits of the excepted utility theory, showing a light on the distinction between normative and descriptive decision-making models.

In 1979, Kahneman and Tversky formulated the Prospect Theory as a leading alternative to expected utility as a theory of decision under risk. According to this theory, people tend to take decision according to a reference point and they evaluate gains differently from losses; particularly, individuals tend to be risk-averse with respect to gains and risk-acceptance with respect to losses. Additionally, individuals are affected by loss aversion, according to which losses loom larger than gains, and endowment effect, namely consumers' attempt to over-evaluate their current possessions. Under Prospect Theory, the two authors depicted the framing effect, according to which the context or the way information is presented influences decision maker's choice. Moreover, Kahneman and Tversky were able to prove that individuals tend to overweight certain outcomes to outcomes that are merely probable (so their preferences are not based on rationality and calculation of probabilities) and disregard components that are common to each of the option and rather focus on the components that differ, in order to simplify their decision-making process.

Additional contribution to behavioural studies comes from Simon's research on bounded rationality. Simon, in particular, rejected the substantive rationality that economic models assume, and, through observation, he maintained that businessmen and other economic actors pursue procedural rationality. They tempted to proceed in a reasonable manner, purposefully rationally in terms of the decision-making process itself, in a way that could be defined as boundedly rational. Specifically, individuals make use of heuristics, defined as any principles or devices that contribute to the reduction in the average search to a solution, to simplify their decision-making process.

Simon emphasized descriptive analyses to show the shortcomings of the neoclassical analysis for understanding human behaviour and prescriptive recommendations to help resolve actual problem-solving,

replacing the perfect rationality assumptions of *homo economicus* with a conception of rationality tailored to cognitively limited agents.

In 1974, Kahneman and Tversky published a book titled “Judgment Under Uncertainty: Heuristics and Biases”, that has given fundamental contribution in the field of behavioural economics. In their work, they were able to prove that impressions or judgments, that follow the decision-making process, are characterized by three main features: individuals are not generally aware of the rules that govern their impressions; secondly, individuals cannot deliberately control their perceptual impressions; and thirdly, it is possible to recognize the situations in which impressions are likely to be biased and to make appropriate corrections to fix them.

Additional contributions to Behavioural Economics come from Loomes and Sugden’s research on risk aversion, defined as a general preference for safety and certainty over uncertainty and the potential for loss or pain, and Arkes and Blumer’s research on sunk cost fallacy, according to which individuals tend to keep up with a behaviour or endeavour as a result of previously invested resources (time, money or effort).

Finally, what emerges from consumer neuroscience insights is that individuals have limited attention and go through information overload effect.

In light of behavioural studies and insights from consumer neuroscience, several shortcomings emerge, both in consumer and in data protection regime within the European legal framework; the central critical point is represented by the information paradigm and two core foundations that directly stem from it: the average consumer benchmark and the information disclosure requirements.

Transparency principle eventually goes through a paradox, as outlined by Południak-Gierz (i.e., “From Information Asymmetry to Information Overload-Technological Society of Consumers”): increasing amount of data and information in order to protect consumer, is highly unlikely to be transparent. The abundance of aspects the consumer has to be informed about by itself must obscure the picture.

As proven by behavioural contributions, consumers have limited attention and go through the no-reading problem, namely failure to read contracts and information.

The main approach of the CJEU has been to consider consumers adequately protected if they had the possibility to gather all the relevant information, according to the average consumer benchmark. The latter has been progressively transplanted in proceedings concerning B2C contracts, within the interpretation of the UTD, despite no explicit reference to this benchmark within the Directive.

The first time in which the CJEU expressed its opinion on the relation between the UCPD (where the average consumer benchmark finds its application) and the UTD, is in the context of the Pereniĉová and Pereniĉ case, in which it gave general guidelines for cases in which both the Directives find application.

The CJEU maintained that there are significant differences between the UCPD and the UTD, specifically the test of unfairness applicable to commercial practices under UCPD is different from the test of unfairness applicable to contract terms within the scope of the UTD.

The main purpose of the UTD is to restore the balance between contractual parties and not to favour the consumer by giving him a more beneficial position than the one that equal parties usually have on the market.

Despite the weaker party in contractual transactions is the consumer, the main idea of the Directive is to balance interests in place and, as outlined by Willet (i.e., “Fairness in Consumer Contracts”), the agenda under the fairness-oriented approach is to help consumers protect their substantive interests. This does not directly imply to give more advantage to the consumer.

While the UCPD aims at full harmonisation of national provisions, the UTD aims at minimum or partial harmonisation, leaving the national court free to adopt legal rules pursuant to which any contract which contains unfair contract terms should be declared void, in case such a legal effect would be more beneficial to the consumers. All the circumstances, in accordance with article 4 of the UTD, shall be taken into-account. The fact that a “not individually negotiated” term represents an unfair commercial practice under the UCPD, it is one of the circumstances, among others to be taken into-account, not having direct implication on the validity of the contract in place.

Both in cases concerning the application of the average consumer benchmark within the interpretation of the UCPD and the ones concerning the application of such benchmark within the interpretation of the UTD, the CJEU has assumed a myopic approach, and it seems to have lost, in many cases, the opportunity to promote a more realistic approach when assessing misleading commercial practices.

One pivotal example from cases where the Court has interpreted the UCPD is the *Mars* case. In this context the CJEU, in answer to the complaints toward the European-wide marketing promotion by Mars company, recognized that the prohibition of such marketing initiative could not be justified, since reasonably circumspect consumers were expected to know that there was not necessarily a link between the size of publicity markings relating to an increase in a product's quantity and the size of that increase. However, analysing the case from another perspective, according to Purnhagen and van Herpen (i.e., “Can Bonus Packs Mislead Consumers? A demonstration of how behavioural consumer research can inform unfair commercial practices law on the example of the ECJ’s Mars Judgement”), individuals, affected by anchoring heuristic, could actually be misled by the product package: when estimating the additional volume visually, consumers estimate that the additional volume is larger when the package contains an oversized area than when it contains the correct area on package.

On the other hand, one interesting example from the UTD interpretation side, that illustrates such missed opportunity of the CJEU, is the Van Hove case. Within this context, the Court applied the same benchmark, despite the complexity of the contract in place and the particular vulnerability of the applicant that brought action against the health insurance association.

If from one side the UCPD offers additional protection to vulnerable consumers (i.e., vulnerable consumer benchmark), its application is characterized by an *exceptional* nature, rather than a general one, finding limited application within unfair commercial practices and, up to now, any application within unfair contractual terms.

In 2015, the CJEU rules the Teekanne proceeding; this may well be the first one in a series of judgment that understands the “average consumer” in a less normative way and opens to arguments about the real-world vulnerability levels of consumers. Accordingly, the Court recognized that where the labelling of a foodstuff

and methods used for the labelling, taken as a whole, give the impression that a particular ingredient is present in that foodstuff, even though that ingredient is not in fact present, such labelling is such as could mislead the purchaser as to the characteristics of the foodstuff.

Nevertheless, this first step, made by the CJEU, seems to be not enough to achieve more effective protection for individuals within the online environment, where Dark Patterns take place. The main issue is represented by the transparency paradox. Individuals seldomly read indications, contracts (online and offline), labels and so on; additionally, they go through an information overload effect, easily becoming distracted by visual, salient and/or vivid elements within the environment in which the decision-making process takes place. Transparency is a core principle within the European legal framework, as it is capable to foster and reinforce fairness within the internal market. The main idea of primary and secondary law tools is to fairly balance interests of the parties acting in the market, specifically consumers and traders in the traditional market, and users and professionals in the digital market. Without effective transparency, it seems difficult to achieve this fair balance.

Starting from reflections on the principle of transparency, chapter 3 is dedicated to an empirical analysis to assess the level of awareness of individuals about Dark Patterns in place.

Dark Patterns were firstly defined by Brignull, in 2010, as user interface design patterns that are crafted with great attention to detail, and a solid understanding of human psychology to trick users into doing things they wouldn't otherwise have done.

Dark Patterns are nothing new. Dark Patterns find their origin in analogous commercial practices that take place within the offline environment, that leverage cognitive bias and heuristics. They consist in online information design set to elicit a specific consumer's response and have been recognized to be powerful nudges to stimulate certain behaviours.

With the advent of digitalization, businesses operating within the online environment have taken advantage of a few key behaviours of imperfectly rational humans to present offers and information. Specifically, they have made use of A/B testing in order to find out which design decision leads to which change in behaviour. Additionally, companies have started to notably invest in UX/UI (User Interface Designs) designs, since they are capable to easily serve users' requests and facilitate online experience.

The overall employment of UX design and A/B testing is translated into a growth for the online economy.

Despite relevant improvement in user interface designs and related benefits both for the growth of the digital economy and facilitated user experience, the intensive commercial use of these techniques presents also clear negative side effects, bringing disadvantages for consumers; for instance, deactivating privacy-intrusive features, such as facial recognition, is much more difficult than their activation.

A wide array of authors has tried to classify these tricky user interfaces, providing, on the other hand, evidence on their wide employment within the online environment. In 2019, Mathur et al. (i.e., "Dark patterns at scale: Findings from a crawl of 11K shopping websites"), collected data from a random sample of 500 websites from a list of 361K websites, which they manually labelled as 'shopping' (if it was offering a product

for purchase) or 'not shopping'. Then they evaluated the performance of both classifiers against this ground truth. They were able to discover 1,818 instances of dark patterns from 1,254 (~11.1%) websites in their data set of 11K shopping websites and, through additional analyses, they were able to build a relevant taxonomy on most employed Dark Patterns, comprising 7 macro categories (sneaking, urgency, misdirection, social proof, scarcity, obstruction, forced action).

In 2020, a relevant contribution to Dark Patterns classification was given by Strahilevitz and Luguri (i.e., "Shining a light on Dark Patterns"); specifically, they were able to build a useful taxonomy, that summarizes all the existing exemplifications and taxonomies of Dark Patterns and present the most frequently employed categories of these digital designs.

From a legal point of view, regulating Dark Patterns is a complex issue, insomuch as they are generally capable to get round existing legal tools.

In 2019, the European Parliament expressed its opinion on Dark Patterns, and referred to the ePrivacy Directive, to the GDPR and to the UCPD as main legal tools to address these online commercial practices.

Conjugating legal tools from different fields, thanks to the promotion of the principle of fairness that acts as trait d'union, seems particularly interesting to achieve a better protection of consumers, considering increasing threats toward them within the digital market.

From one side, data protection aims to protect autonomous decision-making by data subjects and includes, more broadly, the safeguarding of a secure and fair personal data processing environment. The GDPR gives many possibilities to successfully address protection of users, to the extent that, from one side, it prescribes fair, transparent and lawful data processing, and, from the other, it expressly requests that consent shall be freely given, specific, informed, and unambiguous, before that data processing can take place. Further, the GDPR promotes two key principles, namely privacy-by-design and privacy-by default, that makes possible to attain data minimization and maximum data protection for individuals.

Despite high potential of the GDPR to correctly address these online commercial practices, several shortcomings emerge when it comes to the principle of transparency, that represent a pillar within data protection regulation: one might argue that the more transparent a dark pattern, the more likely a user will consent to data processing when there is a significant power imbalance between the two parties. However, especially in the context of commercial practices exploiting individual cognitive bias, transparency principle finds many limitations: increasing the amount of information does not counteract the effects of these UIs.

Conjugating data protection regulation with legal tools from consumer protection regime seems promising since consumer protection acquis provides a significant number of *ex-ante*, *ex-post*, and preventative measures that could be deployed against a variety of Dark Patterns. Specifically, it is relevant to acknowledge the UCPD, the UTD and the CRD, that are capable to cover the overall transaction process, ensuring, on the other side, a fair balance of the interests in place.

Further possibilities emerge from competition law field, in view to achieve a better protection of consumers. Tools from this regime would help to prevent the exploitation of consumers by dominant firms

through the imposition of unfair conditions regarding the processing of personal data. Accordingly, there has been a recent attempt from the Bunderskartellamt to integrate data protection interests into competition analysis while pursuing an investigation into Facebook's terms of service to examine whether consumers are sufficiently informed about the type and the extent of personal data collected.

The presented fairness-oriented holistic approach, that conjugates data protection discipline, competition law and consumer regime, seems to be effective in the regulation of Dark Patterns.

As already explained, despite high potentiality of this regulatory framework, issues may emerge in the light of the fact that consumer protection discipline takes as a benchmark a rational consumer; additionally, the principle of fairness is strictly connected to the principle of transparency, that goes through the illustrated paradox.

In order to develop our research, we took trust as a proxy for awareness on the phenomen of Dark Patterns; accordingly, previous research was able to prove strong relation between trust and perception of risks: when individuals are aware of risks in place and negatively evaluate credibility and integrity of the company, they present lower level of trust.

Previous contribution by Strahilevitz and Luguri (i.e., "Shining a light on Dark Patterns") revealed that the more educated individuals were less likely to accept services offered with Dark Patterns interfaces. In other words, it has been found that education, in some way, acts as a moderator on the relation between UIs and their individual choice: when employing Dark Patterns (vs control condition), the more individuals are educated the less they accept services offered through these misleading UIs.

Starting from this finding, this research aimed at proving that the more educated people are more aware of these tricky UIs, with the final objective to find a moderating role of education on the relation between UIs and their individual trust.

The moderation model, we employed within the empirical analysis, was set with User Interfaces as independent variable (Control Condition/DP1/DP2/DP3), Individual Trust as dependent variable and Education & Digital Literacy as moderator (tested both together and separately). Specifically, for what concern the independent variable, Default Option (i.e., opt-in designs that elicit status quo bias), Time Pressure (i.e., information designs accompanied by timers, to stimulate immediate purchase) and Social Proof (i.e., user interfaces that leverage data which indicate other users' activities and experiences shopping for products, to elicit bandwagon effect and peer pressure) were used within our empirical analysis.

The study used a survey built on Qualtrics. Participants were offered the same data protection service presented by Strahilevitz and Luguri in their research: a six months data protection service free of charge, that, after 6 months period, will be billed $8.99. The service was presented to respondents with 4 preselected UIs: a control condition (no employment of Dark Patterns), a Time Pressure treatment, a Default Option treatment, a Social Proof treatment. Individuals were randomly assigned to one of the four conditions (between-subject design). Participants were paid at the end of the experiment via Prolific.ac (2018) (0,90 GBP).

In order to measure the dependent variable (i.e., individual trust), we employed a trust scale firstly developed by Swaen and Chumpitaz, in 2008, (i.e., "Impact of corporate social responsibility on consumer trust").

Further, the moderator is represented by digital literacy and education. On one hand digital literacy was assessed through a scale by Hargittai (i.e., "An update on survey measures of web-oriented digital literacy"), developed on 30 items (splitted in two halves), then rearranged into an index, so that everyone was assigned a specific level of digital literacy level (from 1 to 5, where 1 represents relatively low digital literacy and 5 represents high digital literacy). On the other, education was measured through questions on the level of education achieved by participants: no schooling completed; some high school, no diploma; high school graduate, diploma or equivalent; bachelor's degree; master's degree; PhD.

The analysis was finally conducted on a sample of 233 individuals, all residing in the United Kingdom, but with different nationality: 95,3% from European countries and 4,7% from non-European countries. The great majority of individuals come from the United Kingdom (79.8% of the sample). The average age of the sample is approximately 36 years old; additionally, the sample is composed by 67% female gender and 33% male gender individuals. Concerning education, most of the sample is represented by people with bachelor's degree (43,3%), followed by people with High School diploma or equivalent (32,2%) and master's degree (16,7%); only 4,7% of the participants did not complete high school and 3% have a PhD. 59 participants were assigned to the control condition, 62 to DP1 (Time Pressure), 56 to DP2 (Default Option) and 56 to DP3 (Social Proof).

Non-parametric tests were mainly employed within the analysis (i.e., chi-squared non-parametric test, Kruskal-Wallis non-parametric test, Kendall's tau non-metric correlation), due to low number of individuals within the sample. Some regression analyses were still conducted, despite limitations related to our sample, in order to depict some interesting and considerable predictive effects.

Main results show that there is little awareness on the employment of these UIs, with one relevant exception, that is represented by Time Pressure: in case of employment of this UI, individuals show significantly lower level of trust and of acceptance rate; the latter works in function only of the level of trust in place. This confirms previous finding on Time Pressure and risk perception, specifically research conducted by Dror, Basola and Busemeyer (i.e., "Decision making under time pressure: An independent test of sequential sampling models who were able to prove that individuals with lower level of risk"), who were able to prove that individuals with lower level of risk (as in our case) are more risk averse. In our case, significantly lower level of trust shows greater awareness of individuals on employed malicious interfaces.

Another interesting finding involves risk perception of individuals: we were able to find that when we introduce the element of risk aversion, the effect of treatment on trust diminishes; risk averse individuals are more sceptic and, again, trust is strongly connected to perception of risks.

Moving to the second objective, namely the moderation effect, our analysis was not able to find significant effect of education and digital literacy (both together and separately) as moderator: awareness about Dark

Patterns cannot be explained with previous education and knowledge about the digital environment. In order to get results on moderation effect we employed univariate analysis.

Our empirical analysis presents some relevant insights to draft possible legal implications. Legal tools in consumer protection have often promoted the idea of empowerment of individuals. Consumer protection law empowers individuals to make well-informed autonomous choices; however, since education, but most of all digital literacy, do not have significant effects on the model, this principle may find some limitations. If individuals' experience on digital environment and related knowledge about digital terms do not show significant effects, consumers' and users' protection based on the principle of information disclosure seems to be too optimistic.

It follows that transparency too finds some limits: according to Incardona and Poncibò (i.e., "The average consumer, the unfair commercial practices directive, and the cognitive revolution"), even well-informed consumers of a high intellectual and educational level, who would, at least in theory, be ideally suited for rational market behaviour, may often base their decisions on custom and feelings rather than on an analytical process.

This analysis gives possible insights to legal makers and scholars to further explore the phenomenon of Dark Patterns and reflect about the real effectiveness of current legal tools. One of the main issues is represented by the rational consumer benchmark that has been widely promoted by European Institutions and by the CJEU, in the form of the average consumer benchmark. When it comes to cognitive bias, the rational decision-making model finds many limitations in the prediction of actual behaviours of individuals.

Despite the high potential of a fairness-oriented holistic approach, the European Institutions should embrace a less optimistic approach while drafting regulations for the protection of consumers and users. Empowering individuals with information disclosure and the promotion of transparency principle finds some limitations within the context of commercial practices that leverage cognitive bias. As shown in this empirical analysis, individuals may not be aware of the employment of Dark Patterns, regardless their digital knowledge or their education.