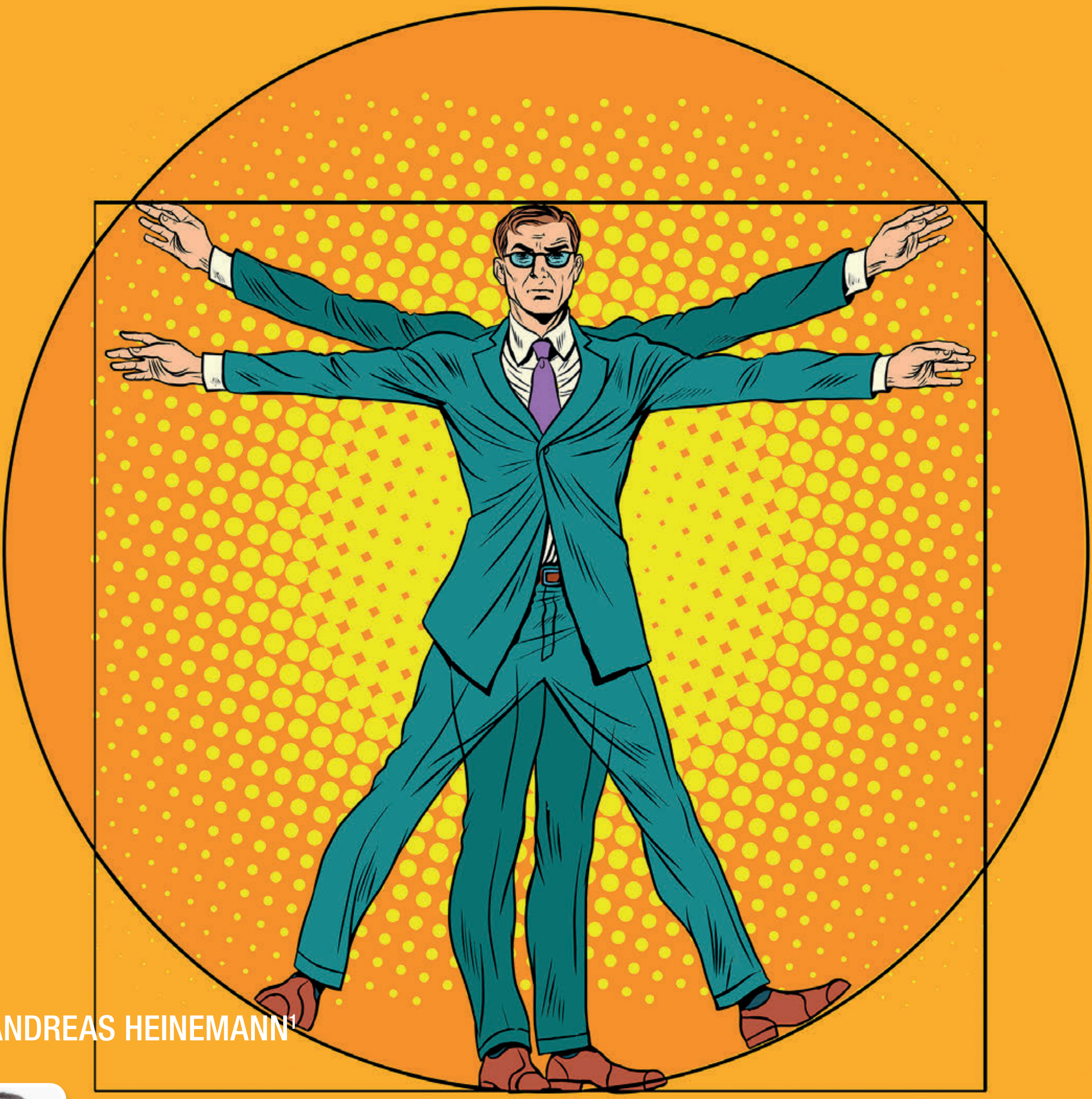
FACTS OVER THEORY: THE CONTRIBUTION OF BEHAVIORAL ECONOMICS TO COMPETITION LAW



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I. INTRODUCTION

In its *Google Shopping* decision, the European Commission has found that, in terms of online search, click probability depends on visibility: Whereas the search results on page 1 receive 95 percent of all clicks, the first result on page 2 only gets 1 percent.[2] In *Google Android*, the European Commission has found evidence that the Google search app is used significantly more on Android devices where it is pre-installed than on devices where users have to download it. The authority adds that pre-installation can create a status quo bias.[3] These findings are part of the facts on which the legal assessment is based. The important message sounds self-evident but has not always been respected in the past: Competition law should take as its starting point the way human beings really act and not how a "resourceful, evaluating, maximizing man" ("REMM hypothesis") is supposed to behave. A solid basis cannot be built on (rational) expectations, but must be informed by real behavior. In the two *Google* cases, the European Commission has done so by referring to experiments and surveys on the impact of search visibility or the hassle-free availability of apps on consumer behavior. In this perspective, it is not sufficient to show that users are able to consult subsequent results pages or to download competing apps. What is relevant is how they behave in practice.

Behavioral economics has yielded important insights in this respect. For example, it has been worked out that human beings do not necessarily have a constant, context-free and consistent system of preferences and that they do not always maximize their self-interest but will voluntarily incur costs in order to fight against behavior perceived as unfair. Besides, rational decision-making is impeded by a lack of willpower, by varying intellectual capacities and by an impressively long list of biases and heuristic fallacies.[4] Legal sciences have taken up these findings and applied them to virtually all sub-fields of law. The first to do it for competition law was Avishalom Tor in 2002.[5] Since then, a new approach to competition law has developed, sometimes called "Behavioral Antitrust."[6] As the above examples from the European Commission show, behavioral thinking has found its way into the practice of competition authorities, albeit at a measured pace.

This article identifies aspects of competition law which may particularly benefit from behavioral analysis. From this problem-based approach, a general lesson on the relationship between law, economics and psychology can be learned.

2 European Commission – *Google Search (Shopping)*, http://europa.eu/rapid/press-release_IP-17-1784_en.htm (under appeal).

3 European Commission – *Google Android*, http://europa.eu/rapid/press-release_IP-18-4581_en.htm (under appeal).

4 D. Kahneman, *Thinking, fast and slow* (London: Allen Lane 2011).

5 A. Tor, "The Fable of Entry: Bounded Rationality, Market Discipline, and Legal Policy," [2002] Michigan Law Review 101(2) 482, 548-559.

6 A. Heinemann, "Behavioural Antitrust – A 'More Realistic Approach' To Competition Law," in K. Mathis (ed.), European Perspectives on Behavioural Law and Economics (Cham: Springer 2015) 211-242.

II. COMPETITION LAW PROBLEMS IN NEED OF BEHAVIORAL SUPPORT

The behavioral approach is of a general nature and may become relevant for all aspects of competition law. The following overview gives some examples where behavioral insights seem particularly promising. The first example, market definition, shows that there are even areas where it has always been possible, even necessary, to include behavioral insights into the legal analysis.

A. Market Definition

Market definition is key for competition law since it constitutes the point of reference for further analysis. The relevant product market comprises all products which are regarded as interchangeable by consumers. The important aspect of this definition in our context is the fact that market definition is not based on objective substitutability but on purely subjective factors, i.e. how the other market side perceives its options. What consumers would buy if they gathered information carefully and made a rational decision is not relevant. What is decisive is their real choice, no matter how irrational it may be. If a large portion of consumers show brand loyalty and do not change their preferences in spite of a small but significant non-transitory increase in price (SSNIP-test), the products belonging to that brand constitute an independent relevant market, even if there are comparable products available which can objectively be considered perfect substitutes. The concept of market definition illustrates that deviation from the rational choice paradigm is not something revolutionary for competition law. Competition law already requires taking "irrational" behavior into consideration in order to define markets correctly. The deeper explanation for this is that the concept of a market, when dealing with competition law, has a subjective rather than an objective character.

The same is true for the competitive analysis of secondary markets regarding e.g. accessories, spare parts or services for a main product. It has been a matter of fundamental debate whether these secondary products constitute separate markets, and if so, to what extent the competitive analysis of these aftermarkets is influenced by the degree of competition at the primary market for the main product (for example printers and toner or razors and blades). The Chicago School argued that restrictions to competition in secondary markets are not harmful as long as there is sufficient competition in the market for the primary product. If customers are not satisfied with the price of accessories, spare parts, or the quality of services, they can opt for a competing main product for which secondary goods and services may be more advantageous. Yet, the behavioral approach cautions against such theoretical reasoning. If customers are subject to an underestimation bias with respect to secondary markets, competition on the main market is not able to guarantee competitive conditions for secondary products. Again, the analysis has to be based on real behavior and not on an abstract pattern. If customers are not aware of total costs and do not learn over time, competition on the primary market does not sufficiently tame the supplier's power to behave independently on the secondary market. Consequently, the analysis of secondary markets cannot be done in an abstract way, but must take into account the specific circumstances of the different markets concerned.

B. Horizontal Agreements

Horizontal agreements have not been at the heart of the behavioral discussion so far. This is because the international consensus on the harm of hardcore cartels is so strong[7] that no finer analysis has been necessary. However, recent technological developments might require further analysis. The *Eturas* case before the European Court of Justice[8] shows that the traditional categories of "agreement" and "concerted practices" find difficulties when coordination between competitors is organized by computers and algorithms. In the case at hand, a company licensing an online-booking system to travel agencies imposed on these agencies a technical restriction limiting rebates for consumers to 3 percent. Higher discounts were automatically reduced to 3 percent. It was still possible for the travel agencies to grant higher rebates, but this required additional technical steps. As a consequence, the majority of agencies previously offering higher discounts decreased them to 3 percent after the change.

Apparently, there is a default bias (or at least inertia) triggered by technical complications. If pricing becomes complicated because of automatic default settings, firms change their behavior and renounce on lower prices. This effect is of considerable relevance for competition law. Thus far, the EU Court of Justice has chosen a traditional solution for this problem: According to the court, technical restrictions implemented through a computer system are not sufficient to prove collusion. Instead, awareness of the discount cap by the parties has to be shown. The question may be asked whether "awareness" is still the appropriate category if algorithms become so autonomous that human intervention is not needed anymore in order to coordinate prices. In our view, the delegation of pricing decisions to a computer system should trigger a monitoring

7 *Recommendation of the OECD Council Concerning Effective Action against Hard Core Cartels*, 25.3.1998, C(98)35/FINAL.

8 CJEU, 21.1.2016, C-74/14 – *Eturas*, ECLI:EU:C:2016:42.

obligation. If uniform market behavior is due to algorithmic collusion, the firms concerned should be under a duty to stop this coordination.[9]

C. Vertical Agreements

The Chicago School has criticized traditional antitrust and – with good reason – called for sound economic analysis in competition law. The treatment of vertical restraints has been important in that regard: According to the Chicagoans, restrictions of intrabrand competition are harmless, or even efficiency-enhancing, if there is sufficient interbrand competition. Under the influence of the Chicago School, the *per se* prohibitions of certain vertical restraints in US antitrust law have been replaced by a rule of reason analysis. In EU competition law, there have never been *per se* prohibitions, but the assessment is based on the interplay of the general prohibition on restrictive agreements with the efficiency justification (Article 101 para. 1 and 3 TFEU). The details are specified in the Block Exemption Regulation on Vertical Agreements (Regulation 330/2010) and in the accompanying Guidelines on Vertical Restraints. According to these rules, restrictions to competition in vertical agreements are exempt from prohibition as long as the contracting parties do not exceed market shares of 30 percent, and under the condition that so-called "black clauses" are avoided, for example Resale Price Maintenance ("RPM") and absolute territorial protection fragmenting the EU internal market by prohibiting passive sales into territories reserved to other trade partners.

For our context, the behavioral aspects of vertical restraints are relevant. If brand loyalty is significant, the market power of the trademark owner will be increased so that interbrand competition is less intense. The argument according to which customers can opt for a competing product if they are not happy with a vertically fixed price or other vertical restraints loses weight under such circumstances. Two conclusions can be drawn in this context: First, the central message of behavioral antitrust is that competition law should not build on theoretical assumptions but on the reality of markets. And second: behavioral antitrust does not replace traditional competition law analysis, but complements it. Negative effects of RPM have been identified in traditional industrial organization, for example that vertically fixed prices may facilitate horizontal collusion.[10] Behavioral analysis adds new aspects to that by showing that competitive pressure may be less strong due to the actual behavior of clients.

The EU Vertical Guidelines take behavioral aspects into account in some cases: For example, brand loyalty is mentioned as one of the factors which may constitute barriers to entry.[11] Moreover, branding is considered to increase product differentiation, to reduce substitutability and thus to increase prices. Therefore, the Guidelines find that vertical restraints with regard to non-branded goods and services are less harmful than for branded products.[12] These first steps towards behavioral analysis should be further developed: Competition law analysis would benefit from a more accurate record of human behavior. Preconceived theorems should be replaced by the analysis of specific market circumstances.

D. Abuse of a Dominant Position

1. Dominance

As already mentioned, behavioral analysis may have an impact on market definition that is highly relevant for the finding of a dominant position. But also, when it comes to the dominant position itself, behavioral aspects are relevant. According to the usual definition, dominance is the power to behave independently from one's competitors, customers and ultimately of consumers. Usually, the analysis starts with market shares and continues with barriers to entry, lack of countervailing buyer power, and other factors. For a dominant position to exist the reason why an entity has the power to behave independently is not relevant, only the fact that the enterprise *is* indeed in this situation. In the *Google Shopping* case, for example, the European Commission has held that the finding of Google's dominant position is not excluded by the fact that users appreciate the relevance of its search results.[13] Hence, the fact that the power to behave independently is due to one's better products or lower prices is irrelevant for the establishment of a dominant position. So too are the reasons for which consumers prefer the products of the firm in question. Even if it would be easy to switch to a competitor and even if the quality of his products would be comparable, this would not remove dominance if the consumers, for whatever reason, do not perceive them as a true alternative. Many cognitive biases may come into play here, such as inertia

9 A. Heinemann & A. Gebicka, "Can Computers form Cartels?," 7 Journal of European Competition Law & Practice, No. 7 (2016) 431-441.

10 M. Motta, *Competition Policy – Theory and Practice* (Cambridge: CUP 2004) 358-362 and the general statement at 348: "Therefore, economic analysis certainly demonstrates that vertical clauses are by no means always beneficial (contrary to what the Chicago School used to claim). Nevertheless, vertical restraints (or some of them) are not always bad."

11 European Commission, Guidelines on Vertical Restraints, OJ 2010, C 130/1, n. 117.

12 Ibid., n. 104.

13 European Commission – *Google Search (Shopping)*, n. 315 (under appeal).

or the default bias. Taking up the example of search engines: If the competitor is just one click away, but users do not click on his search engine and prefer to "google it", competitive pressure is low and cannot invalidate the finding of a dominant position.[14]

2. Tying and Bundling

The Chicago School has criticized the traditional analysis of tying and bundling on the basis of the single monopoly profit theory: Only one monopoly profit can be earned. The prices for the tying and for the tied product have to be seen together; the distribution of the total price on the two products is not relevant. If there is a monopoly for the tying product, there is a reason for antitrust intervention only if this monopoly has been obtained illegally. Even in this case competition law should attack the monopoly itself but not the tying practice. Tying and bundling are, in this view, usually efficiency-enhancing or at least neutral.

Contrary to this view, game theory has shown that there should be neither *per se* illegality nor *per se* legality of tying, but a case-by-case analysis taking into account the market power for the tying product. Behavioral reasoning may enter at this stage. In the European *Microsoft* case, for example, the European Commission held that the tying of the Windows operating system (where the firm has a dominant position) and the Windows Media Player ("WMP") constituted an abuse since the ubiquitous presence of the Microsoft software blocked the access of competing media players to possible clients (customer foreclosure). The central argument has a behavioral character: Although there were no exclusivity clauses between Microsoft and OEM'S, and although consumers could have downloaded competing media players, they did not do so because "vendors must expend resources to overcome end-users' inertia and persuade them to ignore the pre-installation of WMP."[15] Thus, the European Commission did not rely on rational, but on real behavior of consumers.

The *Google Android* case is similar: As already mentioned in the introduction, the European Commission found an illegal tying of Google's search and browser apps to the Google Play Store which is a "must have" app. According to the European Commission, "pre-installation can create a status quo bias. Users who find search and browser apps pre-installed on their devices are likely to stick to these apps."[16] Based on empirical evidence, the Commission has for example found that the Google search app is used much more regularly on Android devices where it is pre-installed than on Windows mobile devices where it must be downloaded. Again, this is a reference to real behavior as opposed to conduct that is theoretically possible but cannot be established in practice.

3. Rebates

Rebates form part of price competition and thus are seen positively from the perspective of competition law. However, rebates may also be used in order to foreclose, for example when they are conditioned on not buying from other suppliers. Industrial economics has developed standards distinguishing between legitimate and anti-competitive rebates. Behavioral aspects should be added to the traditional analysis: The opacity of rebate conditions may make customers cling to a certain supplier in order to not lose the rebate. But even if conditions are transparent the wish to obtain a rebate may be so strong that a rational comparison between different options does not take place anymore. An example are frequent flyer programs: The prospect of receiving a reward sometimes seems to stand in the way of a sober price comparison. Again, it is up to empirical analysis to determine the real behavior of customers.

4. Predatory Pricing

Predatory pricing is recognized as a possibly anti-competitive strategy of dominant firms. However, the finer details are contested. In U.S. antitrust law we find the recoupment requirement, according to which probability has to be shown that the short-term losses due to the predation strategy will be recouped in the medium or long term. In EU competition law no such test applies: It is sufficient to show that a dominant firm charges prices that are below an appropriate measure of cost. Already under the rationality assumption the legitimacy of the recoupment test may be questioned: Why should a firm engage in below-cost practices if it did not expect compensation for losses in the future? Behavioral arguments strengthen this approach: If there is an overconfidence bias, actors may hope for a successful predation outcome although the objectively expected value is negative. On the other hand, competitors may overestimate the perseverance of the low-price campaign because they know that the firm in question will go ahead with its plan even if it will lose money. Again, taking into account the real behavior of market actors leads to

14 See the analysis of user multi-homing and the existence of brand effects at European Commission – *Google Search (Shopping)*, n. 306-315 (under appeal).

15 European Commission, 24.3.2004, COMP/C-3/37.792 – *Microsoft*, n. 870.

16 European Commission – *Google Android*, Press Release (note 3), 3 (under appeal; no public version of the full decision available yet).

more convincing solutions than hypothetical predictions of what firms should reasonably do.

E. Remedies

Behavioral insights should also be considered when it comes to the design of remedies. An example is the European *Microsoft* case. In reaction to the abusive tying of the Windows operating system with the Windows Media Player, the European Commission had imposed the duty to offer – in addition to the full program – a Windows version without the media player. This product did not have any success on the market, though. Moreover, the remedy raised concerns as to the status of innovation in the application of competition law. As the goal of competition law is not only static but also dynamic efficiency, its application must not hamper the continuing process of adding new functions and of developing products further. The European Commission emphasized this aspect in the Microsoft browser case some years later. This time it was about the integration of Internet Explorer into the Windows operating system. The case was solved by the commitment to make a ballot screen available that allowed users to download the browser of their choice instead of or in addition to Internet Explorer.[17]

From a behavioral perspective, this approach seems convincing: The ballot screen is suitable to overcoming the default bias and giving consumers an autonomous choice of the browser they are going to use. At the same time, the remedy promotes competition on the merits since the product is not chosen because of its immediate availability but because of its quality. However, overchoice has to be avoided. As the computational capacity of human beings is restricted, choice should remain manageable. Consequently, the ballot screen should not strive for completeness but contain the most important products plus a choice of the less usual products which should vary randomly.

III. CONCLUSION

Behavioral insights are highly relevant for competition law and work as a complement to traditional competition law analysis. The application of competition law should be based on the real behavior of economic actors instead of hypothetical assumptions. For the sphere of law, it has always been obvious that normative assessments have to be made with respect to proven facts. The behavioral approach is helpful in this regard because it aims at a more accurate description of human behavior.[18] It is not acceptable for empirical insights to be ignored because they are not compatible with economic theory. The opposite is true: The economic analysis has to be based on advances in our understanding of human behavior. Taking bounded rationality into consideration will not lead to a revolution, but can make competition law more realistic. The economic fundament of its application thus becomes more reliable. As the examples in this overview show, the "behavioral turn of competition law" has already begun.

17 European Commission, 16.12.2009 – *Microsoft (Tying)*, OJ 2010, C 36/7. This commitment applied until 2014. For non-compliance see European Commission, 6.3.2013 – *Microsoft (Tying)*, OJ 2013, C 120/15.

18 See for example R. Cooter & Th. Ulen, Law & Economics, 6th edition (Boston: Pearson 2012) 51.