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THE PREDICTIVE POWER OF RESEARCH

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DEFRAGMENT THE CONSUMER

THREE WAYS TO UNLEASH THE PREDICTIVE POWER OF MARKET RESEARCH

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PREFACE

Consciously or unconsciously, we systematically distort what we actually want to understand: the consumer. This happens in a different form at every stage of the project, but in each case in a very characteristic manner. The causes of this 'psychopathology of market research' lie in our classic approaches and research methods. Through the methodology we use we often implicitly assume rational behaviour, neglect interdependencies and over-generalize from isolated findings. Most of all, we often forget or are not able to question the underlying psychological model of consumer behaviour.

The article outlines the pitfalls in the different stages of each project, from the client briefing throughout the whole project up to the final presentation of the results to the client. It corrects the company-centric standard error made by many market research professionals, namely assuming that the consumer thinks just as profoundly and rationally about buying a product as they do internally. Based on this analysis with numerous practical examples we develop a framework to deduce the theoretical and methodological implications we need to focus on if we want to significantly increase the validity of our predictions in the future.

INTRODUCTION: THE MYTH OF THE "HYBRID CONSUMER", AND WHAT IT REVEALS ABOUT THE PSYCHOPATHOLOGY OF MARKET RESEARCH

Some years ago, the "hybrid consumer" was discovered (Müller, 2001). This concept was assumed to explain the until then seemingly inconsistent market research finding that the same person buys products of different

price levels. For example, a consumer who normally tends to buy expensive designer clothes might also hunt for the cheapest white label offer when it comes to cereals. The marketing and market research community captured this phenomenon by inventing the (amazingly fast-growing) segment of hybrid consumers. This seemed to resolve the apparent inconsistency.

But wait a minute. Let us step back and ask ourselves a question commonly posed in clinical psychology, where a label is assumed to tell us something about the labelling subject as well as the object labelled. What does the label "hybrid consumer" tell us about the labelling subject, in our case, the marketing and market research community and its conception of consumer behaviour?

We obviously find it rather surprising to be faced with a consumption pattern where consumers are inconsistent in terms of not having the same price sensitivity within or across all conceivable products or services. In other words, we implicitly tend to assume that belonging to one price sensitivity cluster in a specific product segment allows us to conclude, by analogy, that the same person belongs to the same price sensitivity cluster in all product segments. Hence, we tend to base our prediction *on conclusions by analogy*, which is an inherently circular and descriptive rather than explanatory approach, and substantially different from predicting choice behaviour on the basis of *understanding its individual drivers*.

In order to save our "professional self" as market research professionals from being too surprised

about consumer behaviour that our “private self” would regard as perfectly normal, we had better question our underlying assumptions regarding the drivers of consumer decision-making that implicitly guide our research approaches. Some of the seemingly astonishing data might simply result from an all-too-simple or distorted perspective we have adopted in marketing and market research.

In this paper, we will analyse the pitfalls associated with these perspectives throughout the whole market research value chain, from briefing the research institute to finally interpreting the results. We will show how they systematically fragment our understanding of consumer behaviour, as if consumers were generally subject to a certain psychopathological pattern – which in fact is not a characteristic of consumer behaviour, but instead of our fragmenting research perspectives, which consistently neglect relevant aspects of consumer psychology. In that sense, this paper deals with the psychopathology of marketing and market research and the impairing consequences it has on the validity of our predictions. Although it generally applies to all areas of market research, for the sake of clarity we will exemplify our theses with price research. As a consequence, we propose to quite fundamentally challenge some of our shared beliefs, and in turn accept five new axioms as a guideline to better predictions.

ANALYSIS: RESEARCH RESULTS AND CASE STUDIES ON HOW WE SYSTEMATICALLY FRAGMENT THE CONSUMER

Thematic fragmentation: The scope of research is defined as if consumers were suffering from an obsessive personality disorder

To take the mobile telecommunications industry as an example, the classic briefing question when it comes to optimising prices always is: “How low do we have to go with our price to keep old customers and attract new ones?” Because all operators ask this question and run a significant number of price optimisation projects primarily focussing on price level, this leads to a price

war that is continuously intensified. In some cases, the downward price spiral can go so low that hardly anyone is making profit any longer. A good example here is the mobile telecommunications market in Austria, where prices have reached a level that is so low that the whole market would probably not be profitable today without its substantial roaming revenues.

Yet from the consumer’s perspective, is this really the right question to ask? Is it possible that this question doesn’t really tackle the core issue from a consumer’s point of view?

Let’s take a look at a neighbouring country, namely Switzerland: one operator here (Orange) has challenged that stereotypical research question on the basis of the following consumer insight: from a consumer’s point of view, price has become an increasingly unpleasant and aversive topic in the mobile telecommunications industry. Moreover, only 1 in 10 customers currently has the price plan that is actually most attractive for him. Since most customers are unable to cope with the complexity of price plans, we empirically find that a large segment of consumers have gradually changed their decision strategy from trying to find the best offer to trying to find an offer that conceals no “bad surprises” and that seems to be quite acceptable. Nevertheless, most operators still spend most of their marketing budget on explicitly communicating with their customers about precisely that unpleasant topic (price level), without addressing the actual consumer concerns.

Based on this insight, Orange Switzerland launched a price plan called “Optima”. Optima itself consists of several price plans that target users, ranging from a few minutes to several hundred minutes a month. These underlying price plans have more or less the same complexity as any other price plan on the market, but the gimmick is that, based on their monthly call pattern, each customer is assigned to the price plan that leads to the lowest invoice for a given month. This price plan targets the increasing need for price security and fairness, as well as making Optima

less comparable to any other price plan on the market (by the way, the new customers generated by Optima outweighed by far the loss in profitability that resulted from offering every customer the lowest price model for each month).

By asking a phenomenological question ("What role does pricing play in the consumer's decision-making process at all?") instead of asking a product-centred question ("How low do we have to go with our price?"), Orange managed to address the actual customer need more directly without increasing the price pressure in the market. They very successfully changed the competitive environment for that customer segment.

Two things should be demonstrated by this analysis of the current price wars in the mobile telecommunications industry, which to some extent are self-inflicted: firstly, research questions are often too narrowly framed, and secondly they are too company-centric. We thereby fragment consumers as being just as obsessed by one aspect of the product as the corresponding department in the company, and we ignore the underlying "*psychologic*" of their interest in these aspects (e.g. looking for price fairness) as well as the interaction with other aspects of the individual decision process that lies outside our current research focus.

A psychologist will tell you that a person with an obsessive personality disorder is characterized by a general psychological inflexibility, rigid conformity and excessive focus on certain things, as in this example the lowest possible price. From what we have outlined above, however, it is not so much the consumer who is obsessed by price, but our very own research perspective that makes consumers appear obsessive. In fact, it sometimes might even be not so much the consumer, but we ourselves, who are characterized by inflexibility and excessive focus on certain things.

This is only one of many examples showing that the conclusions of a market research project are restricted, predetermined or even distorted by briefing the research institute with an inappropriate question. Moreover, the

fact that this issue is easy to understand has not yet led to its disappearance.

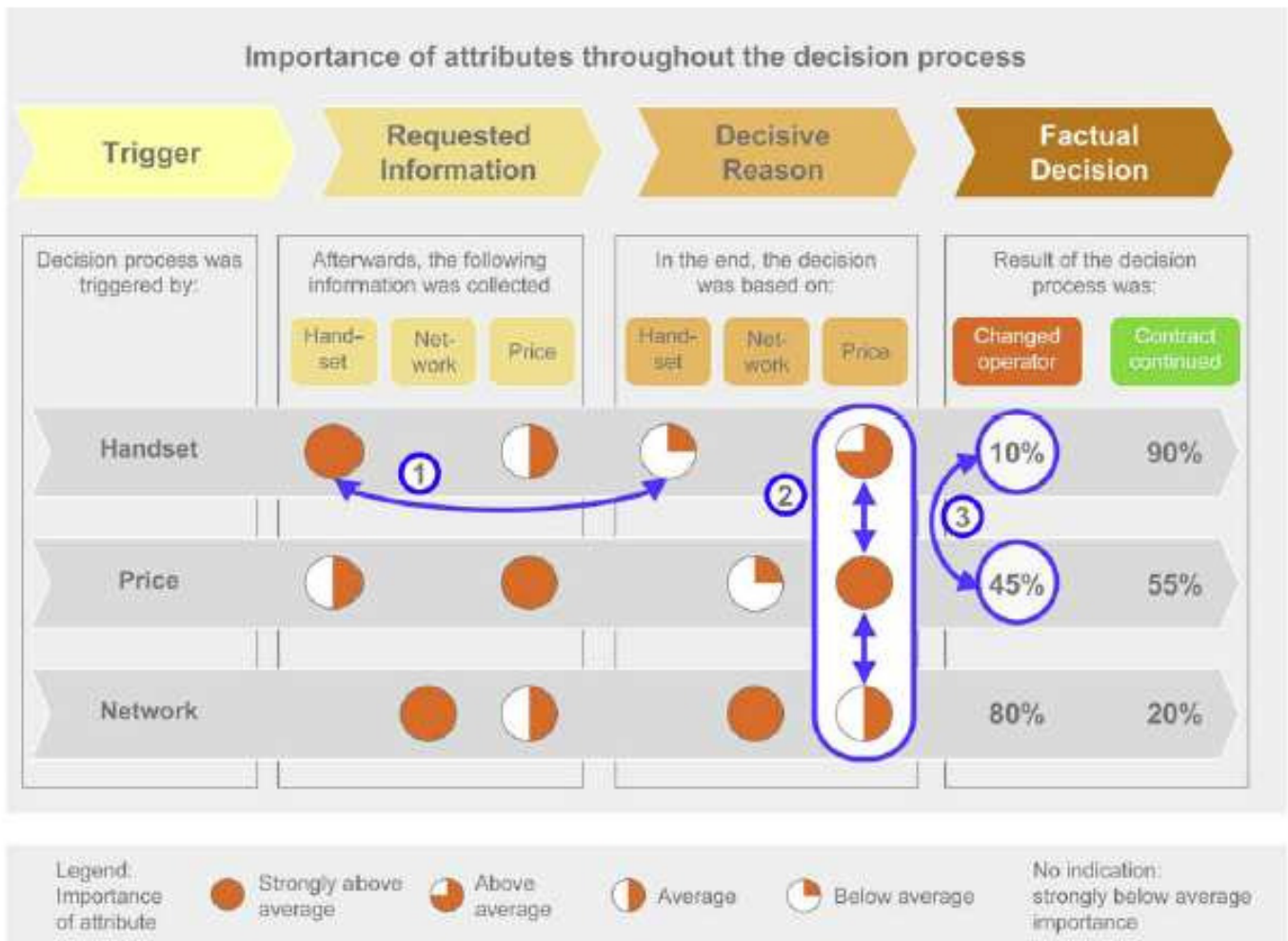
Translating the question from the world of the company to that of the consumer is the first hurdle for market research, since the question frame is rarely the appropriate research frame. From the consumer's perspective, an aspect that interests a specific department can often only be meaningfully analysed when combined with other topics that may be utterly irrelevant for the department commissioning the study. The question from the client's perspective, the parameters included and their strategic context thus do not allow one to draw any conclusions as to how it must be answered. Consequently, we have to learn to see a product through our consumers' eyes, not those of our marketing team or cost controllers. That sounds more straightforward than it is, particularly because it needs less time, effort and money to just directly adopt the client's question. In the case of pricing, we might then realise that the consumer's choice is fortunately often not the zero-sum game than we tend to think it is.

Dynamic fragmentation: The research design is developed as if consumers were suffering from amnesia

Even if the research question is now framed from a consumer's perspective, the market research designs developed to answer that question mostly disregard the dynamics of choice behaviour – and not only when it comes to pricing.

If we want to know what role pricing plays in the consumer's decision process, we should not try to answer this question with some static trade-off methodology that aims to quantify the absolute relevance of "price" compared to a range of other product aspects, such as brand, handset, etc. Why not? Simply because people do not make decisions that way. If our objective is to most effectively influence the consumer's decision process in favour of our product, we should try to actually understand that decision making process. Since a process is by definition a

FIGURE 1
IMPORTANCE OF ATTRIBUTES THROUGHOUT THE DECISION PROCESS



sequence of things that happen over time, no process can be understood from a static point of view. As long as we implicitly assume that consumer choices are made instantaneously in the twinkling of an eye, with no prologue or epilogue, we will be unable to understand their dynamics, predict their result, and identify the business opportunities that accompany this process.

An individual process can only be understood if that exact process is followed over time. It is simply impossible to compile snapshots of different decision-makers in different phases of the process in order to coherently understand the process as a whole. To illustrate this,

we refer to figure 1, which summarises the results of one of our own longitudinal research projects where we actually followed individual consumers' decision processes over time.

Given the results pictured in figure 1, we can firstly see that the importance of certain attributes varies throughout the decision process (see ①). In the example, the handset is very important at the beginning of the decision making process, but loses much of its importance at a later stage. This leads to certain "sensitive timeframes" in which the consumer obviously decides about them, and as a consequence might

subsequently evolve their relevant set until they reach their final decision. Secondly, the importance of a specific attribute depends on the history of the decision process; in our case, it depends on the initial trigger of the decision process (see ②). In the example, price is very important for the decision making, when the initial trigger was the handset, but not so important, when the initial trigger was the network. And thirdly, the initial trigger largely predetermines the churn risk of a specific customer (see ③). In the example, only 10% of the consumers that were initially triggered by the handset ended up changing the provider, compared to 45% who were triggered by price.

If one compares these results with the notion of 'stable importances' of product attributes that implicitly underlies every static research design, it becomes obvious that we systematically distort our results because we treat consumers as if they were suffering from amnesia. A psychologist will tell you that amnesia is a condition in which the memory is disturbed or totally lost. And obviously we assume that the selection process itself can be neglected as long as we provide all the relevant information in our static one-shot surveys. From a psychological perspective, this implies that we ignore any choice-moderating procedural influence such as learning or sequential decision-making. This again is only reasonable if we also assume that the consumer lacks any capacity for mid or long-term memory.

If one already ignores the individual dynamics of human behaviour in the research design, it can never yield valid prediction models. Purchase behaviour always has a history, and is subject to an individual process logic that renders its appearance more comprehensible and thus easier to predict. Unavoidably, ignoring this keeps us from really understanding consumer choices and finally developing new business opportunities. Hence, market research has to discover the dynamic dimension of consumer behaviour. We have to say goodbye to static customer segments and adopt the notion of process segments, which seem to be much more important than sociodemographic aspects or

milieus in understanding the reasons for consumer choice behaviour.

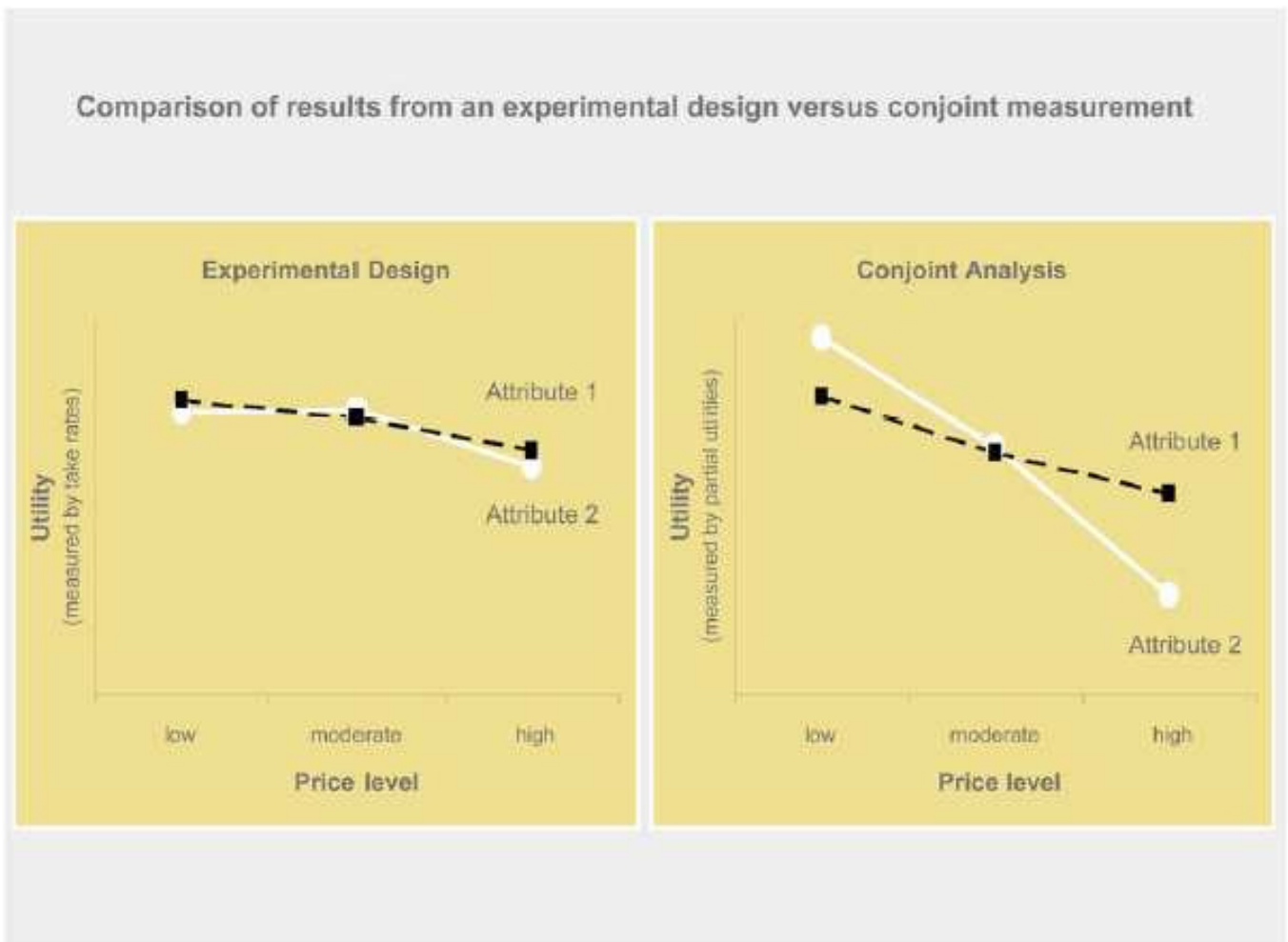
Contextual fragmentation: Effects of the interview situation are being neglected as if consumers were suffering from alexithymia

After the research design has been defined, the actual questionnaire and interview context are decided upon. We then recruit people and interview them. Most of the time, the interview setting differs significantly from the situations our questions are targeting. We are interviewing people about their decision making process at the point of sale (POS) or their experience when driving their car, but we do this while they are sitting in a completely different context by asking questions they may never have considered to be relevant to them.

In designing the data collection, we firstly tend to suppose that people can abstract from the typical interview situation and that they are willing and able to give valid answers about their behaviour in other situations. These answers are thought to be insensitive to the current context and the emotional state in which the interview is taking place. We suppose true, concrete, realistic answers and logical thinking where moderating emotional responses to the specific interview situation are excluded. Secondly, we often excessively focus the scope of our questions on the rational facets of consumer choice. Our questions are often more strongly aimed at a direct and easy-to-handle *analysis* rather than trying to capture the consumer's "*psycho-logic*". We statically dissect and individually analyse each presumably logical aspect of the decision, assuming that we just need to put all the pieces back together again in order to predict what consumer will do next time they are at the POS.

A psychologist will tell you that people suffering from alexithymia are unable to identify, describe, understand or react according to their emotional state in a given situation ("a-lexi-thymia" literally means "without words for emotions"). In short: we design this step of the market research value

FIGURE 2
COMPARISON OF RESULTS FROM AN EXPERIMENTAL DESIGN VERSUS CONJOINT MEASUREMENT



chain as if our interviewees were totally blanking out emotional aspects. And we simply overestimate our interviewees' willingness and ability to answer "rationalistic" questions asked in an artificial context in a way that enables us to make correct predictions on the basis of their answers.

Let us take a closer look at the practical implications this has for our findings in one of our price research assignments where we tested different price structures for financial services products so as to optimise the overall price structure as well as find the optimal price level for each price element (e.g. monthly charge, transaction price). In this assignment, we

had the exceptional situation that we were running an experimental design across interviewees in one interview section in addition to a parallel conjoint analysis in another section. Both respectively modelled the same core attributes and the same attribute levels, and each interviewee underwent both parts of the interview.

As a result, we had two assessments of the utility and importance of the two core attributes (monthly charge and transaction price). The results are illustrated in figure 2. Here we can see that both attributes had more or less the same importance in the experimental design (indicated by the nearly identical spread of

both curves in the left graph). The conjoint analysis produced completely different results: here, attribute 2 was much more important than attribute 1 (indicated by the different spread of both curves in the right graph).

Now what does this tell us in respect to the contextual fragmentation? We had tested the same product options and attribute levels in both streams. Nevertheless, the attributes tested seem to have had different levels of utility and hence importance depending on the method employed in the interview. Now let us take a closer look at the context in which the interviewees gave their answers: in the experimental section, each interviewee had to look at one specific price model and decide if they would accept it or not. In the conjoint measurement section, the interviewee had to decide between one of three price models and the “none” option.

How can this different interview context account for the divergent results? To explain this, we have to look at two other factors that always need to be considered in price optimisation: individual relevance of the price when deciding about the specific product, and individual price knowledge. In our target segments of affluent consumers, price knowledge was poor and price importance rather low. Thus people didn't really care about this attribute, and weren't really aware of the price level in the market.

Now let us reconsider the questions in the interview: only one option was displayed in the experimental situation, whereas in the conjoint set-up the respondent had to choose between three price models. Given the poor price knowledge, people did not have a reference price in mind. Thus in the experimental set-up, with just one offer to be accepted or not, people had to make a choice on the basis of their actually poor knowledge. However, in the conjoint setting the explicit reference prices of two other options were readily available. This information biased their choice behaviour compared to the experimental set-up, where the individual level of price knowledge and price relevance more realistically influenced the choice behaviour.

With respect to our example, we can conclude that conjoint analysis focuses too strongly on price evaluation alone while ignoring similar important aspects in the decision process, such as price knowledge or price relevance. Moreover, this exemplifies the fact that the interview context in general exerts a critical influence upon the data we collect and ultimately the recommendations we derive from it. Human beings aren't computerised answering systems that, regardless of the situation in which the data is gathered, produce valid responses to subjectively unusual, inappropriate complex, or even hypothetical questions. Although there has already been systematic research on the clear and psychologically appropriate wording of questions (e.g. Sudman, Schwarz and Bradburn, 1996), many other context effects have been largely ignored or considered differently by each research approach. Still, many questionnaires and research methods reveal that their developers grossly overestimated the involvement and rationality with which the respondent critically appraises a product or its purchase, and the reliability with which they ultimately behave like they indicated in the interview. People therefore often cannot or do not want to answer the questions in the respective context in which they are asked.

This in itself would perhaps still be relatively unproblematic. It only becomes critical because the respondent does not take the initiative to tell us that they cannot or will not answer the question. Instead, they provide invalid answers. Our questions provoke answers, but they often happen to be misleading ones. Therefore, we should not count on the fact that the respondents will assume responsibility for the questions they are trying to answer. They will not do our homework for us.

Statistical fragmentation: The collected data is analysed and condensed as if consumers were suffering from autism

Once the data has been collected, it needs to be statistically analysed and perhaps condensed into a quantitative model that can predict and simulate consumer choice. Everyone knows you shouldn't

believe any statistics you haven't falsified yourself (e.g. see Huff and Geis, 1993). However, as in other areas, it is also true of statistical analyses that the worst errors are usually not committed by those who intentionally falsify, but by those who are firmly convinced that they're doing the right thing.

The general acceptance of many statistical procedures frequently paralyses any critical analysis of the assumptions on which they are based. Simple predictability often seems to be mistaken for correctness, or we prematurely suppose that a statistical parameter has a specific content-related significance that it actually lacks – as is, for example, frequently the case with correlation coefficients, which we like to understand as a specific value for "sensitivity" or "importance" when it comes to driver analyses.

The commonly used statistical analysis procedures are all based on the "General Linear Model" (GLM) and its specific assumptions. As already indicated by the name, the data that has been collected, and thus the consumer, is broken down into additive linear individual information. This allows only a very limited illustration of non-additive "Gestalt"-effects, and requires more complex analysis procedures that for the most part are only rarely deployed. Instead of this, we use these procedures to break respondents' statements down into isolated topics, and artificially suppress the influence of other aspects, as for example happens with any multiple regressions. We are evidently of the opinion that the respondent has also somehow originally aggregated their response from such individual aspects.

We thus imply that our consumer processes information in a way that is characteristic of autism. A psychologist will tell you that people suffering from autism cannot process holistic information, for example, a facial expression as such. Instead, it has to be assembled and consciously processed out of isolated individual features such as "open mouth", "corners of the mouth curving upwards", and "narrower eyes" to provide the information "laughing face".

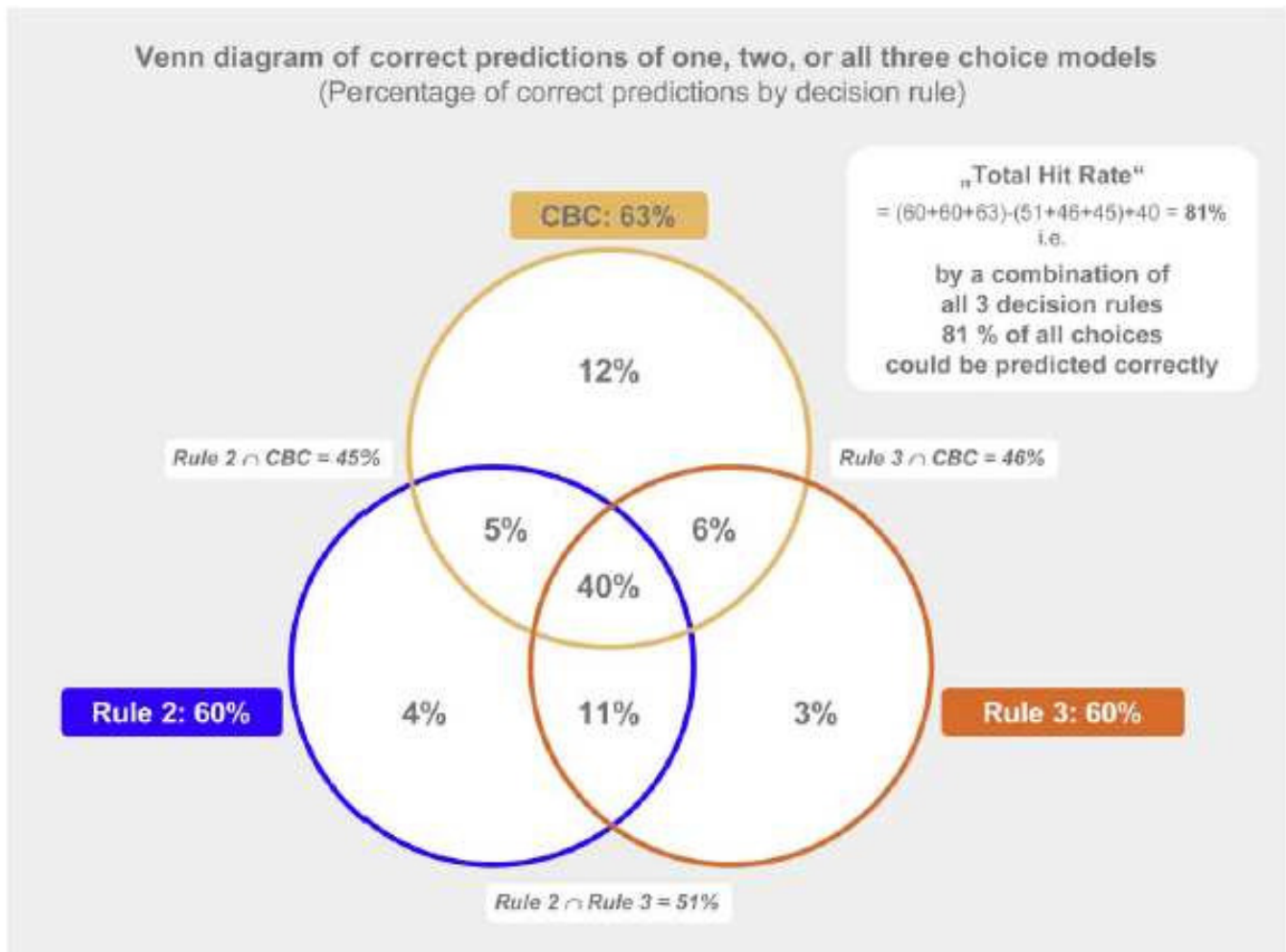
Not only the classic statistical procedures, but also further mathematical modelling such as those of decision behaviour within the framework of conjoint analyses, are subject to certain assumptions that to some extent are identical to, or at least in their implications similar to, those of GLM. In our following example we want to observe the consequences of the utility model presupposed in the world of conjoint.

All conjoint algorithms imply one specific choice rule that reflects the fact that conjoint measurement constructs people as deciding rationally: every option has a definite absolute utility for a certain person. This total utility is the sum of the partial utilities that are again linked to certain product attributes. Among several options (e.g. product configurations), the respondent selects the one with the highest utility. No other (irrational) rule of choice is conceivable within this framework. In that sense, conjoint analysis predefines the consumer as behaving rationally, and even if they don't, they are modelled as if they do. Hence this research tool selectively targets the consumer's "rational self".

It is a commonplace nowadays that most people have severe problems in deciding rationally (e.g. Camerer, 2004), and we all know that it might well be possible that different people follow qualitatively different rules when they make their choices. Assuming that there is only one such model naturally limits our chances of making correct predictions.

We will demonstrate the effect this can have by using a few empirical results from one of our own research projects, where we reanalysed a choice-based conjoint measurement project (CBC). Here we took the optimised CBC model to predict the participants' choices, and compared this with their actual decision in the interview. The choice sets in the conjoint analysis always included three product options so that the purely random hit rate would be 33%. The predictions of the CBC model led to correct predictions in 63% of cases. Hence the effort

FIGURE 3
VENN DIAGRAM OF CORRECT PREDICTIONS OF ONE, TWO, OR ALL THREE CHOICE MODELS



involved in carrying out a conjoint analysis nearly doubled the rate of correct predictions.

Then using research results from economic psychology, we selected two other empirically validated choice rules based on relative instead of absolute utility models (for further details of these alternative choice rules, see Bauer, 2000). We reanalysed the original data set by applying these heuristics to see how precisely each of them would predict the actual choices in the survey. Comparing the predictive validity of the conjoint measurement algorithm with the performance of the two other heuristics, we found quite surprising results:

1. First of all, the results for each of these models were nearly as good as CBC (both 60%). Please bear in mind that the parameters of both models were defined without integrating any of the empirical data collected.
2. Secondly, we combined all three rules in order to account for the possibility that people might very well follow different decision rules, and we reached a compound hit rate of 81% for all three models (see figure 3).

Although at first glance it might be hard for a market researcher to accept that an unoptimised (i.e. not empirically parameterised) choice rule achieves almost

the same level of predictive correctness as a highly sophisticated research approach (incidentally, this is an easily reproducible finding; e.g. see Dawes, 1981), the second result already offers new opportunities: if we accept that not every consumer follows the same rational decision rule, we have the opportunity to significantly increase the quality of our predictions – in this case from 63% to 81%! Moreover, we could show that in each case people tend to follow one of the three choice rules significantly more often than the other models. Hence we were able to match the individual decision process with this portfolio of different decision rules in a more valid fashion. A utility model that is not based on linear additive utility modelling can evidently also produce similarly precise predictions, even where the rational utility model fails to do so.

To summarise: if our analytical tools become more flexible, less linear and less additive, they might also become more sensitive to the decision process consumers follow, which is actually less rational. Their potential for detecting what consumers (actually) do will grow in relation to their potential to predetermine what they (should) do. Hence if we try to protect our consumers from seeming too autistic, we will be able to predict their behaviour more precisely.

Axiomatic fragmentation: The results are interpreted as if consumers were suffering from a multiple personality disorder

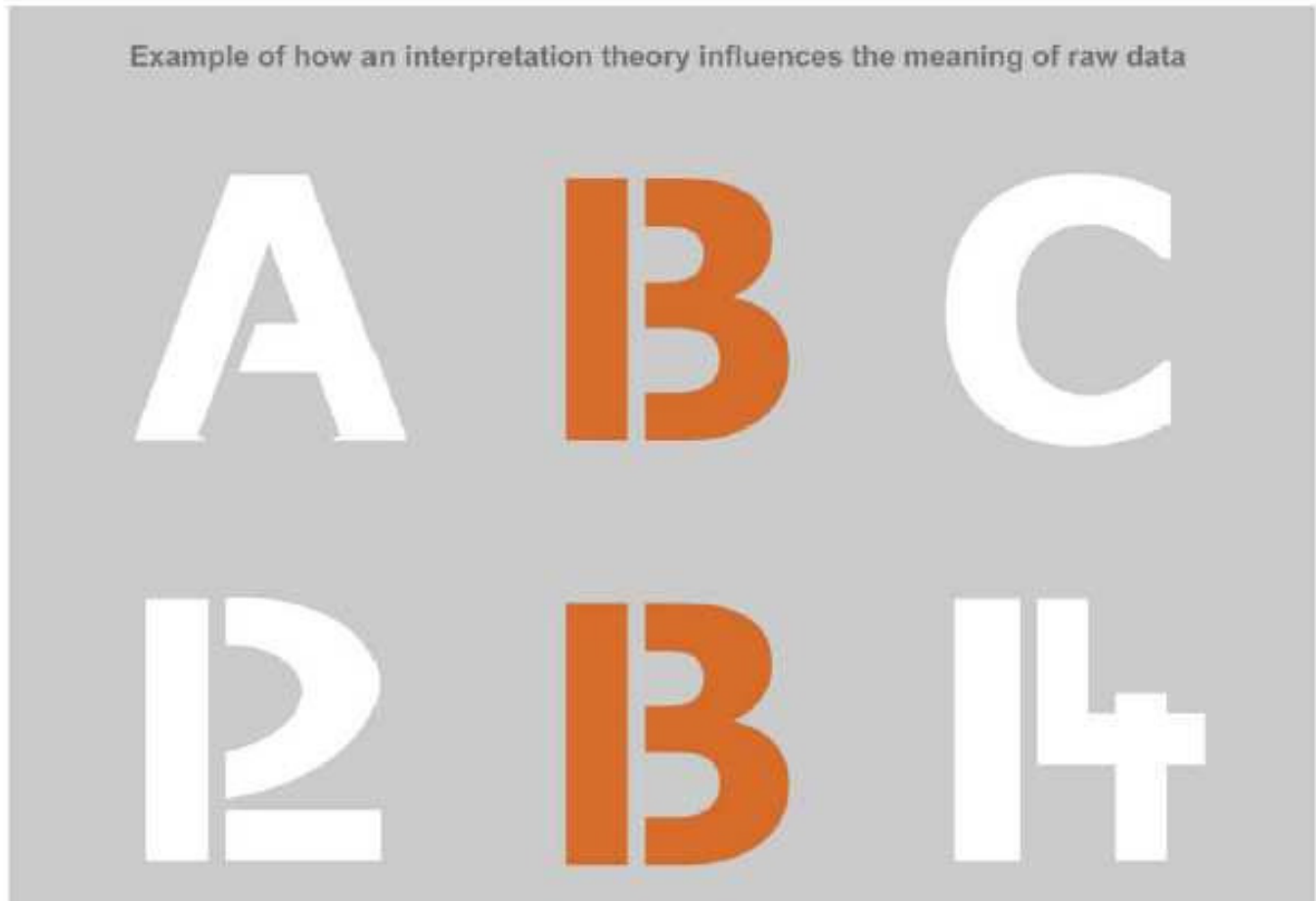
Looking at the world, people start to interpret it: there is no cognition without interpretation. This interpretation is guided by our implicit or explicit assumptions, our expectations, shared beliefs, hopes, or our current context. These preconceptions guide which aspect we selectively focus upon, as well as how we look at it. Each interpretation is thus always merely one of many possible interpretations. And as Karl Popper (e.g. 2002) has shown, it can never be “right”, but often wrong. Since this is true for everybody, it must also be true for professional market researcher.

Misinterpretations of market research data can thus be traced back to the fact that it is understood “top-down” by the client, only in the light of a specific interpretation theory, i.e. only from the perspective of a certain consumer model. In doing so, assumptions and constructs relating to consumer behaviour that have never (or only in a totally different context) been empirically evaluated often consciously or unconsciously influence the interpretation. The raw data is thus ‘whitewashed’ in the truest sense of the word by these assumptions, and knowledge is replaced by belief.

And this is where we come back to our introductory example of the “hybrid” consumer. A psychologist will tell you that a person suffering from multiple personality disorder has two or more distinct identities or personalities, each with its own pattern of perceiving and interacting with the environment. With our model of the “hybrid” consumer we actually imply that an ever-growing segment of consumers suffer from such a multiple personality disorder only because we cannot plausibly explain their behaviour within the framework of our conventional interpretation theories. It is quite obvious here how a shared belief (*“It’s possible to predict price sensitivity by analogy”*) distorts the integrity of our consumer’s personality, and forces us to construct them as a psychologically impaired person who behaves like Dr. Jekyll and Mr. Hyde.

Moreover, this problem of interpretation is further aggravated by the fact that independent studies conducted by different institutes for the same client also apply different interpretation theories. It is therefore not uncommon that perfectly identical data is interpreted in totally different ways. From the client’s point of view, what ultimately emerges from this is a personality model of the consumer that can change completely depending on the interpretation theory used – almost as if the respondents possessed mysteriously co-existing personalities. This effect, and thus the potential influence of any such theory on the interpretation of empirical data, can be illustrated very well by figure 4. Here, the element

FIGURE 4
EXAMPLE OF HOW AN INTERPRETATION THEORY INFLUENCES THE MEANING OF RAW DATA



in the middle represents the raw data that has been gathered, and the two elements on the outside represent the assumptions made by the interpretation theories of different market research institutes, which we often use as a backdrop for interpreting the raw data: depending on the interpretation context we use to observe the character in the middle, we either read the raw data as the number “13” or the letter “B”.

THEORETICAL IMPLICATIONS: FIVE AXIOMS FOR GUIDING FUTURE RESEARCH

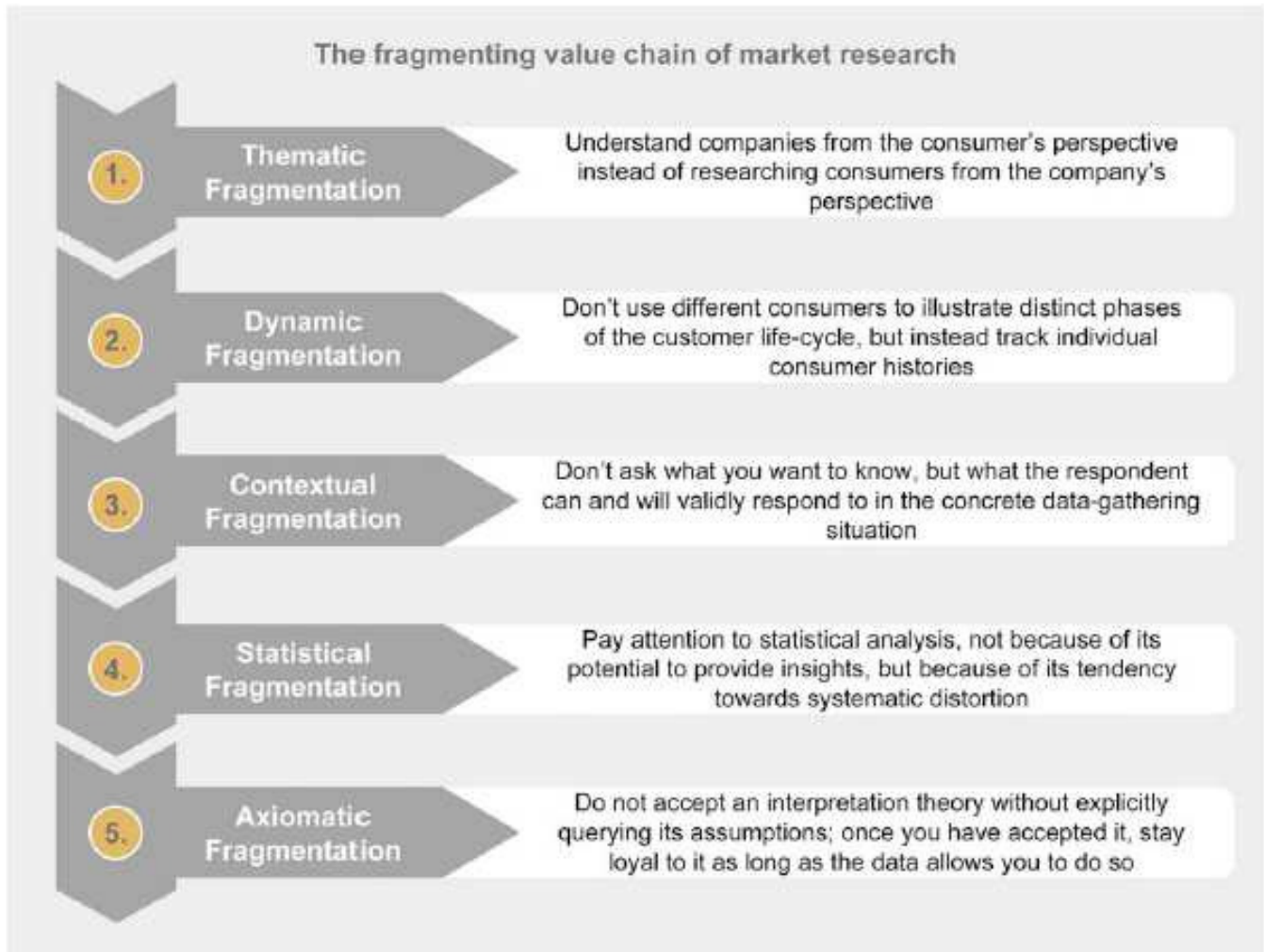
The analysis so far has shown us that current market research has some significant flaws. As a matter of fact the overwhelming majority of consumers out there do not suffer from any severe personality

disorder at all. They are perfectly normal people like you and me that sometimes decide based on logic, sometimes based on their gut feeling and sometimes even dare not to decide at all. It is our job as market researchers to build models that can adequately represent this behaviour instead of forcing it into preset schemes with questionable results.

The concrete examples outlined above allow us to deduce five general research rules that we will have to encompass in future if we want to produce more valid predictions (see figure 5).

1. *Understand companies from the consumer’s perspective instead of researching consumers from the company’s perspective.* In order to do this, we

FIGURE 5
THE FRAGMENTING VALUE CHAIN OF MARKET RESEARCH



must adopt a consumer's perspective of all providers/suppliers, and not a department's perspective of all consumers. Market researchers must support marketing professionals in overcoming their traditional company-centric view: firstly, by taking a more active part in defining the research question; secondly, by delivering results that can be (and are) linked with other lines of research so as to seamlessly understand all the drivers throughout the customer life-cycle in the respective industry (no stand-alone tools); and thirdly, by providing an appropriate strategic market research programme for that purpose, *wherein* ad hoc projects can be integrated as detailing research satellites ("T-approach").

2. Don't use different consumers to illustrate distinct phases of the customer life-cycle, but instead track individual consumer histories. In order to capture the individual dynamics of human behaviour in the research design without any distortions, we should make far greater use of longitudinal designs which actually accompany individual respondents right through to the behaviour that has to be predicted, and which do not try to capture the entire range of possible process phases and influencing factors from a static research perspective.

3. *Don't ask what you want to know, but what the respondent can and will validly respond to in the concrete data-gathering situation.* Because market research is meant to provide answers to complex and hypothetical questions, we must firstly pay more attention to the psychological implications of the context in which the respondent is interviewed: for example, by asking our questions in a situation that is as close as possible to real-life decisions and consumption. Secondly, when it comes to questions that one cannot or should not directly pose to consumers, we should make far more intensive use than we previously have of experimental designs via which we can to some extent at least control the context-related distortion of responses.

4. *Pay attention to statistical analysis, not because of its potential to provide insights, but because of its tendency towards systematic distortion.* We may be impressed by the "robust beauty of improper linear models in decision making" (Dawes, 1982), but we should not forget that it is "improper"; instead, it should warn us to look for more valid ways of modelling human decision behaviour. In order to do this, we must bid farewell to the additive linear nature of normative decision models, and more strongly integrate the results of an academic research stream called "behavioural decision-making".

5. *Do not accept an interpretation theory without explicitly querying its assumptions; once you have accepted it, stay loyal to it as long as the data allows you to do so.* In order to avoid "top-down" errors, each interpretation theory must satisfy three criteria: firstly, the interpretation that consistently links research findings and also has to make fewer assumptions is *ceteris paribus* superior ("Ockham's razor"; Spade, 1999); secondly, these assumptions should not be mere assertions, but should already have been evaluated in a related context; and thirdly, the interpretation must not only have a nice 'storyline' in retrospect, but suggest concrete predictions and pragmatic recommendations. Furthermore, the

assumptions should be mentioned explicitly when presenting the results so that they can be challenged. If one gives further logical consideration to these criteria, it follows that the interpretation theory, or rather the model of the consumer we have in mind when interpreting the data, cannot be changed for each and every study.

The more profound reasons for the problems mentioned above, however, lie in the fact that we have until now neglected to develop a psychologically based theory of consumer behaviour that supplements our highly evolved formal methodology. There is no lack of scientifically based insights concerning this topic. Yet even behaviour models that have long been part of the 'standard repertoire' of economic psychology, or have even had the Nobel Prize bestowed on them, such as the works of Daniel Kahneman and Amos Tversky (for example, see Kahneman, Slovic and Tversky, 1982), have until now not been systematically adopted by application-oriented market research.

FUTURE PERSPECTIVE: IMPLEMENTATION OF A SELF-CORRECTING PROCEDURE

In our view, the primary starting point to overcome the described fragmentation is not necessarily the research method, but the way in which the results are subsequently used. As a result of the contradictory findings they often yield, the fragmenting research approaches will finally lead to their own disappearance if we lay down a basis so that the contradictions within and above all, between studies can become more obvious and no longer content ourselves with the ignorant explanation that this is merely down to the all too changeable and unpredictable consumer. Instead we have to actively work with the results of contradictory studies and track down the reasons for it along the fragmenting steps of the market research value chain in order to actually understand and predict consumer behaviour with far greater precision than in the past.

For the market research institute this involves the chance to help the customer with setting up the basic

psychological framework for consumer studies. It is no longer a matter of primarily answering the briefing question; it is now a matter of further developing the client's company-specific consumer behaviour model that should become the core of a strategic market research programme. In order to do this, the institute must cater more specifically for individual clients, and above all collaborate more closely with them in the aftermath of the study so as to jointly take forward the development of the behaviour model. Calling for company-specific behaviour model also means that we have to become more critical towards institute-specific construct definitions and consumer behaviour models that are primarily used to differentiate an institute from its competitors. Unlike scientific research, where various theories can be openly tested against one another, a critical appraisal and evaluation of these proprietary behaviour models does not take place, since the latter are for the most part not explicitly formulated, or if they are, they are "black box models" that are not accessible to public debate. Therefore, companies themselves have to take over responsibility for developing their individual consumer behaviour model. This is not something they can delegate to a provider of a black-box solution.

Given that most consumers enjoy sanity, we need to try harder not to treat them as if they didn't: not for their own sake, but for the sake of more precise predictions concerning their future behaviour. With the same professionalism that goes without saying when we have to ensure that a study is representative or that results are significant we also have to ensure that the underlying psychological model of consumer behaviour is valid and as free as possible from contradictions. If we do not do this, we will no longer achieve any substantial improvement in our predictions. And it is particularly important for us to realize that in the search for better prediction models, it is mainly ourselves rather than the consumer standing in the way.

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