

# **SUCCESS IS A MIND GAME**

## **HEURISTICS**

### **- A CENTRAL CONCEPT FOR THE EVOLUTION OF MARKETING?**

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### **ABSTRACT**

Are the existing marketing logics, in fact logic? The economic field is a territory of applied science. Theory development has a responsibility to deliver perspectives and models that correspond to real life challenges, in line with argumentation for theory advancement of Vargo and Lush (2004). This paper argues that the redeemed concept of heuristics, is opening up for a whole-minded approach to human cognitive processing, and offers a path forward for continuing the marketing journey. If a hesitation in the scholarly discussion regarding the advancement of marketing logics is perceived - which it is by the present author - it may be explained by silo thinking within the field of marketing, creating unnecessary polemic, and a too single-minded view - i.e. a dominating positivistic perspective. Researchers are indeed part of the problem.

After an ontological and epistemological discussion, mainly regarding purpose in relation to methodological approach, the paper argues that the reach and employment of the concept of heuristics in marketing may be widened. In synthesis, a model of heuristics for use in marketing is proposed, implicitly also representing the necessary evolution to an Integrative-Dominant Logic for Marketing, to fit a whole-minded view of human cognitive processing. The model explains the building blocks of heuristics, "similar to the elements of chemistry" corresponding to a research call by Gigerenzer and Brighton (2009, p. 27). It is argued that the concept of heuristics is central for understanding the firm's actual capacity and pace of adaptation in the business network.

Globally, this conceptual paper seeks to highlight an imbalance in the attempts to provide a definition of heuristics in marketing; the construct seems to be subject to a dominant, deterministic project of classification, where apparently a relativist perspective has a restraining order. This resounding omission of a symbolic perspective is remarkable, to say the least; nonetheless since the mind works by both association and deductive logic, acknowledged notably to form an "ecological rationality" (Gigerenzer and Brighton, 2009). A half-minded approach, viewing humans as "Homo economicus", is limiting for the necessary and expected evolution of marketing logic framework to fit today's non-stable environment and demands for continuous adaptation. A whole-minded approach, viewing humans as homo heuristics, intrinsically demands - and implies - an extension of the paradigm of marketing logics, beyond both the goods-dominant and the service-dominant logics, to also include the field of management of meaning, equal to a brand-dominant logic of marketing.

**Keywords:** Heuristics, Homo Heuristicus, Marketing Logics, Innovation, Adaptation Capability, Brand-Dominant Logic, Epistemology, Ontology.

## INTRODUCTION

Given the challenges that firms encounter today, are the existing dominant marketing logics, in fact logic? Anecdotal evidence of an increasing complexity of managers' decision-making concerning adaptation processes and issues such as innovation and organizational change, is spontaneously giving a firm, negative answer to this question. "The challenge for firms and marketers is to seize the opportunity out of the confusion created by accelerating market complexity. Their ability to do so will shape the future role and influence of marketing within the organization" (Day, 2011, p. 183). This is the issue that this paper wants to draw attention to and discuss - the gap between environmental challenges and the mental frames, within which the practical and theoretical approach to marketing is developing. The unit "serving to find out or discover" (heuristics' original meaning of Greek origin),<sup>1</sup> on both a managerial, an aggregated organizational and theoretical level, may not be optimal for a specific, or changed environment, which will ultimately affect the firm's adaptation capability.

For example, despite the today among B2B companies very common shift from product to solution focus, or to an increased service strategy, little is known regarding "what drive the success or failure of an effort to increase the service component" (Ulaga and Reinartz, 2011, p. 6). Services in the extant research on innovation, has received little attention compared to goods; and empirical material reveal that a systematic approach to service innovation often is lacking in practice (Ulaga and Reinartz, 2011). In a recent observation, Day confirms the perception that there is a demand for new thinking about marketing capabilities "way beyond the narrow confines of the marketing mix" (Day, 2011, p. 183), due to an ever increasing gap between the accelerating complexity of markets and the limited ability of organizations to respond to this change. In conclusion, he raises some important issues for scholars to consider, where the present author particularly notices the need to study organizational impediments (e.g. inertia, coordination, talent limitations), and his alert regarding the need for a conceptual discussion on the contribution of market orientation. Day means that the concept of marketing orientation served its duty in a slower-paced and simpler era, and recommends it to be reconsidered in the light of today's uncertain and complex market situation. The cited research calls concern the firm's approach to marketing - the marketing logics in use determining capability to respond to change - and seem to point to an existing theoretical gap in catering for today's needs of reorganizing.

The 20<sup>th</sup> century's efficiency focus, needed output-based, goods-oriented models to serve an emergent, deterministic science of economics, flourishing in pace with industrialization (Vargo and Lusch, 2004). The needs of the 21<sup>th</sup> century may be summarized in one word: integration. It is no longer a question of "either/or", of replacing the unit of analysis, e.g. intangibles, or processes, in favour of tangibles in line with the Service-Dominant logic; it is literally everything at once, organized within a new, emerging paradigm of meaning. Innovation is the new buzzword eager to neglect normative classifications in a cascade effect, and potentially also erasing boundaries between silo intra-firm functions, as well as between an internal and external organizational context. At the same pace, independently of field, an awareness regarding the interconnectedness of things, rejecting old dichotomies, is increasing.

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<sup>1</sup>Gigerenzer and Brighton, 2009, p. 107.

It seems inevitable that comprehension of managers' decision-making processes demands a widened perspective, whereby *homo economicus* belongs to the last century.

Considering the challenges managers are facing today - is the stream of research on heuristics digging in the right spot, i.e. is focus on accuracy and rationality of choice the solely relevant one? Indeed, "homo heuristicus" seem to be closer to reality than "homo economicus" (Gigerenzer and Brighton, 2009). In an attempt to apply the construct of heuristics into today's business context, what are the necessary questions to pose, for furthering logic within marketing theory and practice? The aim of this conceptual paper, written for the specially themed track on heuristics of decision-makers for the 2012 IMP conference, is to explore the possible use of the construct of heuristics in marketing, by taking these questions into utmost account. The present author notably argues that heuristics cannot be fully understood, or captured in a void; a definition must be tied to context and purpose (for using it), and thereby ontology and epistemology play crucial parts. Understanding decision-making, stresses the need to proceed to the antecedent level of attitudinal frames and logics, serving the heuristic unit, and explaining behaviour. Notably, a constructivist approach probably has to be used to respond to the research call by Gigerenzer and Brighton (p. 27) whether there is a system of building blocks of heuristics, "similar to the elements of chemistry". Weick (1995) underlines the superiority and precedence of a sensemaking perspective over one focusing on rationality, for understanding organizational behaviour.

The basis of this paper's discussion is delimited to the study of two high profile, dialectic stances regarding the construct of heuristics – Gigerenzer and Brighton (G & B)<sup>2</sup> on the one hand, and Kahneman on the other. G & B's discussion is representative for intriguing issues concerning heuristics and its context, concerning the very fundamentals of the construct. In sharp contrast to Kahneman, G & B fully acknowledges the dimension of intuition as an accuracy component in decision-making. Still, G & B's research is framed with a linear, deductive focus on predictive accuracy, aiming at validating the construct of heuristics through its rationality. This epistemological stance also seems to be normative in general when heuristics is applied in a business context. Research may to a large extent be characterized by a focus on rationality of choice, with themes such as managers' predictive capability (e.g. Wübben and Wangenheim, 2008; and Morwitz and Schmittlein, 1998), and the decision-making *process* (e.g. Merlo, et al., 2008).<sup>3</sup> In contrast, the present author's ambition is to investigate different framing than rationality when using the construct of heuristics, as well as an alternative methodological approach, that includes the dimension of intuition and meaning. Consequently, this paper's intent is to be complementary - i.e. not contradictory (rather supportive as it turns out) - to G & B's reasoning.

The rest of the paper is organized as follows. First, the concept of heuristics in cognitive science is presented in order to discuss alternative reasons to study heuristics in relation to the challenges of practice, and ontological and epistemological concerns. Based on this discussion, in a second part of the paper, the construct of heuristics is widened in a proposed model, which is also subsequently further integrated to a marketing context. A third part, explores the theoretical and managerial implications of using the proposed model. Finally, a conclusion resumes content, sites possible and expected gains of using the construct of heuristics in marketing, and identify future research paths.

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<sup>2</sup>From here onward, G & B is used both as reference to Gigerenzer and Brighton (2009) and as abbreviation in the text.

<sup>3</sup>The rationality focus is of course further accentuated when the construct of heuristics is applied in the field of artificial intelligence and process optimization (e.g. Lee et al., 1993).

*"The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honours the servant and has forgotten the gift."*

A. Einstein

## CONCEPTUAL DISCUSSION

### Why heuristics?

The way humans make smart decisions; or "Efficient cognitive processes that ignore information" - two short, but to the point definitions of heuristics (G & B, p. 107). The fascinating character of heuristics, shown in research, that "less information, computation, and time can in fact improve accuracy", contrast to the common view that less processing reduces accuracy and "forces us to reassess our normative ideals of rationality" (G & B, p.116). G & B mean that findings on the functioning of heuristics, and how less can be more, are "opportunities to rethink how the mind works" (G & B, p.116). Heuristics has its domicile in cognitive science and represents a perspective that today, independently of field is becoming increasingly topical. Cognitive processing concerns two functions of the mind: examining facts and following intuition. There is in academia an ongoing debate regarding the two systems' strong and weak aspects and their interaction. The construct of heuristics is conceptually interesting, because it seems to get information from both these systems, from both ways of thinking. Heuristics actually appear to be a good way of describing every day life thinking, because we are not *optimizing* information search all the time; rather we make decisions based on what we know or feel, consciously or unconsciously, guided by memory and intuition.

Research on heuristics is relatively young, and it seems to represent a controversial construct, at least to the point that it is a little bit floating as to what exactly it implies. The intriguing character particularly appears in scholarly discussions regarding its character being rational or irrational, logical or illogical – where two high profile positions are noted – on the one hand, G & B, claiming the accuracy of the tool, and on the other, Kahneman, viewing heuristics as a non-reliable method. The ongoing argumentation in the emerging field of heuristics, in cognitive science, may to a large extent be characterized by a quest for a validation of the construct per se (notably G & B). Business research in general, employing the construct of heuristics, uses the same epistemological stance.<sup>4</sup> Through the concept of homo heuristicus the intuitive dimension is recognized as a valid information provider. G & B point to the success of heuristics' inductive approach, proven reliable in both computation - e.g. in biased induction algorithms, used for pattern recognition and machine learning - as well as in human judgement. Humans possess what may be described as "an adaptive toolbox of heuristics" i.e. rules of thumb for decision-making, in which the dominant ingredients are associations and recognition (G & B, p. 130).<sup>5</sup> Choice, of a particular heuristic tool, for solving a particular task at hand, to the greater part is an unconscious process.

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<sup>4</sup>As already mentioned in the introduction, the dominant focus of business studies' applying heuristics is on rationality of choice, with themes such as manager's predictive capability (e.g. Wübben and Wangenheim, 2008; and Morwitz and Schmittlein, 1998), and the decision-making *process* (e.g. Merlo, et al., 20008).

<sup>5</sup>For an overview of ten well-studied heuristics, proven ingredients of the adaptive toolbox of humans, see G & B, p. 130.

Kahneman, counted as the father of behavioural economics, has his focus on the effect of behaviour (Kahneman, 2011). He may very well have won the Nobel Prize for showing that two systems drive the way we are thinking, one that is intuitive, emotional and fast and the other that is more logical, deliberate and slow, a designation commonly referred to as having challenged the rational model of judgment and decision making. However, his research interest in relation to decision-making lies in determining accuracy and in classifying behaviour according to the dichotomy rational-irrational. His mission seems to be to alert us double-natured humans regarding the non-reliable, often in fact flighty, character of intuition and emotions – which explains Kahneman’s non-adherence to the heuristic concept. It is easy to conceive of Kahneman automatically labelling heuristics “irrational”, or at best guilty-until-proven-innocent. In fact, together with Tversky, Kahneman designed a number of experiments during the 1970s, where the concept of “heuristics and biases” was almost invariably linked to fallacies in reasoning. G & B critically respond that virtually every one of these experiments was “designated to show that people violate a law of logic, probability, or some other standard of rationality” (p. 109). In order to legitimize heuristics as a tool for correct inferences, indulging in the polemics between their approval and Kahneman’s rejection of heuristics, G & B introduces the concept of *ecological rationality*. This concept implies that the logic of heuristics is situation-bound, or in their witty description “ecological, not logical” (p. 116).

Now, applying the concept of heuristics, does the field of marketing automatically have to import purpose and epistemology (as represented by G & B and Kahneman) that seem to be normative? In responding negatively to that question, the present author intuitively sympathizes with the first and underived meaning of the term, of Greek origin, “serving to find out or discover” (G & B, p. 107). Seeming to open up for new perspectives, this interpretation represents this paper’s take verbatim of the construct of heuristics. The next two chapters will discuss ontological and epistemological concerns in relation to purpose of using heuristics in a business context.

## Purpose, Homo Heuristicus & Homo Economicus

The dichotomy rational-irrational is not the only way to learn more about decision-making and its components. When employing the construct of heuristics in marketing, theorists need not to automatically import an epistemology focusing on accuracy. Moreover, there are risks with a sole and unique focus on rationality, which may be resumed in a return to the half-minded thinking of *homo economicus*, a role model that would be a contradiction in terms, when the capacity of intuitive meaning formation is in focus. Per definition, *homo heuristicus* acknowledges the validity of intuitive (whole-minded) thinking, while *homo economicus* is not. G & B obviously adheres to the first group, make no mistake, albeit the dimension of meaning is feeble in their reasoning - if even there. The focus on the correctness, i.e. "rationality" of choice may be justified in a closed context, such as a game-betting situation. However in the case of a business manager's decision-making, the correctness of a particular strategy is more open to negotiation. The focus on accuracy implicitly demands focus on particular situations and presupposes that there is a correct answer. These implications immediately give rise to at least two follow-up remarks. First, choice can always be post-rationalized, depending on angle of analysis. Second, who is to judge "correctness", when there are an infinite number of possibilities? A classification of rational or irrational will always be situation and judge bound. An alternative, complementary, and more neutral success-criterion for the construct of heuristics is: ability to identify solutions. Considering the challenges today's decision-makers are facing, accentuating the need to change and adapt, this success-criterion for heuristics could potentially be more interesting for the evolution of marketing theory; c.f. are the existing marketing logics in fact logic?

A success-criterion considering ability to identify solutions puts the construct of heuristics in a different light. If heuristics most of the time are ruling our behaviour, because *seeking simplicity*, it's the way the human mind works - then managers (and researchers alike) could benefit from more explicitly considering its limiting character. Imitating behaviour of a peer group, or to basing choice on recognition - both frequently used heuristics<sup>6</sup> - might not be the most effective solution for future *business* success. The complexity of the environment can cause managers to "... laps into using mental-effort-reducing heuristics such as anchoring and adjustment" (van Brüggen et al., p. 645).<sup>7</sup> The alternative success-criterion for heuristics focusing on the ability to identify solutions, amplifies the relationship between heuristics and the environment in G & B's concept of ecological rationality. The unit "serving to find out or discover", on a managerial or an organizational level, may not be optimal for a specific, or a changed environment; there is a gap between mind-set and environmental challenges.<sup>8</sup>

The present author understands the heuristic unit as a function, a sort of iterative, to a large extent unconscious and atomized process of the mind, containing elements of both induction

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<sup>6</sup>For an overview of frequently used heuristics, see Table 2, in G & B, p. 130.

<sup>7</sup>Anchoring and adjustment, a heuristic adjusting prediction from an available anchor, employed e.g. in numerical prediction; may be effective but can also lead to systematic and predictable errors (Tversky and Kahneman, 1974).

<sup>8</sup>This take of the construct of heuristics is used by van Brüggen, Smidts, and Wierenga, in a study where they show that the use of a marketing decision support system, may help managers bypass intuitively appealing (but less performative) heuristics, and to more easily identify the values of decision variables, thereby making better decisions (van Brüggen, et al., 1998).

and deduction. The heuristic unit recognizes and identifies a specific environment, which legitimizes a particular heuristic tool. In that respect, the unit “serving to find out or to discover”, represents our everyday glasses for *seeing* solutions regarding both problems and possibilities, in order to subsequently make a decision. Heuristics will decide how challenges and opportunities, both within the firm and in the business network, are perceived and consequently influence how resources are mobilized. If the heuristic unit (on a firm or manager level) has not adapted in accordance with a changed environment, in a way being locked in certain thinking patterns, it is easily imaginable that the organization becomes a confirming, protective bubble. “This is how we do and think around here”, pleases the heuristic unit, seeking simplicity. If the external environmental changes faster than the heuristic toolbox adapts, then Kahneman would be right - the unit “serving to find out or discover” will probably deliver irrational decision-making. However, this does neither imply a rejection of the concept of heuristics per se, nor of its capacity. It only means that the character of the unit “serving to find out or discover”, on a firm or manager level, probably is very *successful in terms of fit relative an intra-organizational* environment, e.g. the company culture, or the manager’s personality – while fit vis-à-vis the external environment is not optimal. Therefore, in the ongoing theory building of the construct, it may be hazardous leaving out a systems view of the internal, surrounding context, as it means a pressing risk for heuristics being disqualified as a reliable tool, and a warning signal for the intuitive dimension of meaning and associations. For marketing the context omission particularly means a risk of returning to a more half-minded view of the manager and decision-making, i.e. the reappearance of an autocratic homo economicus, merely focused on the correctness of predictions.

The natural and expected suite of “ecological rationality” would have been, for instance “the internal ecosystem of heuristics”. However, G & B are still epistemologically positioned on the linear, deductive half of the pitch with Kahneman. This is comprehensible, since they need to legitimize the capacity of heuristics, in polemic with the discrediting research of Kahneman and Tversky.<sup>9</sup> Moreover, G & B’s omission of the closely related constructs of “traits, attitudes, preferences, and similar internal explanations” (G & B, p. 134), most probably does not have any other intentions than purely practical ones of delimitation. However, fact remains that a too narrow focus on rationality, the domain of homo economicus, while omitting the dimension of meaning, may have contra-productive implications for the dimension of intuition, impeding its contribution to a furthered understanding of managerial challenges. Inevitably, focus is again put on ontological and epistemological crossroads. G & B’s clear-cut separation of their developed toolbox of heuristics, from “traits, attitudes, preferences, and similar internal explanations” (and their brief mentioning of the latter), gives a feeling that these related, but still distinct, constructs are delivered in a ragbag, that has unfortunately fallen somewhat by the wayside.

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<sup>9</sup>G & B mean that virtually every one of Kahneman and Tversky’s experiments was designated to illustrate that people using heuristics “violate a law of logic, probability, or some other standard of rationality” (p. 109). See also this paper, page 5.

## Purpose - Predicting or Depicting?

Heuristics in use make no distinction between rational or irrational - they simply “are there”. ”Hence, there is a need to make the use of heuristics a more conscious process, so that the strengths and weaknesses of a particular heuristic can be appreciated” (Merlo et al., 2008, p. 196). This is valid for both researchers and marketers. In the normative approach to decision-making, focus is on predicting accuracy. In an alternative, complementary (i.e. widened) perspective on heuristics, the purpose is *depicting* the approach of the decision-maker. Focus is no longer on the dichotomy irrational-rational of the normative approach. Instead the dichotomy *rich or poor* heuristics, for solution identification. The corresponding success-criterion is ability to see “possible realities” for the firm, e.g. to identify business opportunities and solutions – the VQ (virtual intelligence quotient) of manager or firm heuristics. Considering the challenges practice is facing, and calls for research on marketing capabilities, this could be an interesting perspective on heuristics.

Therefore, in a complementary approach to G & B, building on and acknowledging their work, this paper would like to remedy the lack of focus on context and meaning, and explore the implications of a widening of the concept of heuristics from the vantage point of marketing. Depicting heuristics, stresses the need to proceed to an antecedent level, where the VQ capabilities are explained, and raise awareness regarding the attitudinal frames and logics in use, serving the heuristic unit. Change will not be possible until meaning is created out of chaos. Undisputedly, marketing theory and practice do need to deduct meaning out of the last decade’s transformations, albeit more information is not the cure if meaning is lost. It seems that what could be lacking in an approach to marketing is – the dimension of meaning.

## SYNTHESIS – A PROPOSED MODEL

### Adding Meaning to Heuristics

In this chapter, the construct of heuristics is opened up for new meaning and a model of the building blocks of heuristics is proposed. In the extended view of heuristics as a unit “serving to find out or discover”, the logic resides in the decision-maker’s view of the situation, and the aim is not to classify it as rational or irrational, but to depict it. What is considered logical will in G & B’s approach to heuristics always reside in the external situation.<sup>10</sup> As systems thinking approaches cognitive processing lies implicit in G & B’s reasoning, otherwise their concept validation criterion, of a rationality that is “ecological, not logical” (2009, p. 116), would fail. Consequently, to understand the logic of heuristics, it has to be studied in relation to a surrounding decision-making context. The present author picks up on the fact, proved by G & B, that heuristics are developed by humans to fit specific environments, and furthermore interprets “environment” on a continuum of larger contexts, ranging from the human being, to the organization, and the external environment. Instead of Gigerenzer’s and Brighton’s question of “why heuristics?” (2009, p. 134), the question of this paper becomes “why *specific* heuristics?” with the answer lying in the environmental *context of meaning* that heuristics operate in – on all levels of the continuum, from the individual level, to the aggregated level, where the company develops a specific marketing heuristics vis-à-vis the environment.

Heuristics may be characterized as an iterative, or interrogative, process of the mind, an “if-then” process. The “then” part would be the chosen tool in G & B’s toolbox of heuristics, and the “if” part would be the recognized situation, as perceived by the decision-maker. This antecedent part of the process, i.e. a subjective view on environment, is not included in the reasoning of G & B.<sup>11</sup> When providing “a vision of human nature”, they consider the adaptive toolbox of heuristics and “internal explanations”, referring to “traits, attitudes, and preferences” are omitted (G & B, p. 134). Therefore, this paper now sets out to explore the possibilities to widen the concept of heuristics, to also include subjectivity, i.e. “situation, as perceived by the decision-maker” (the “if-part” in the mind’s iterative process). This is the field of attitudes and associations, the dimension of meaning formation omitted in G & B’s reasoning. An introduction of the meaning dimension is in alignment with the underived meaning of heuristics, as a unit “serving to find out or discover”. In reverse, a view of cognitive processing and decision-making, omitting the meaning dimension, gives the impression of homo heuristics being reduced to a machine - good though, empowered with a biased induction algorithm! This mechanical perspective on decision-making is communicated already in the title of G & B’s article, where humans are referred to as “biased minds”. In fact, in studying thinking patterns, Lakatos during his career alternated between referring to heuristics in terms of “logic of discovery” and “logic of justification” (Kiss, 2006). This hypothetically supports a widening of the construct, as “logic of discovery” corresponds to this paper’s complementary view (the VQ of manager and firm heuristics), and

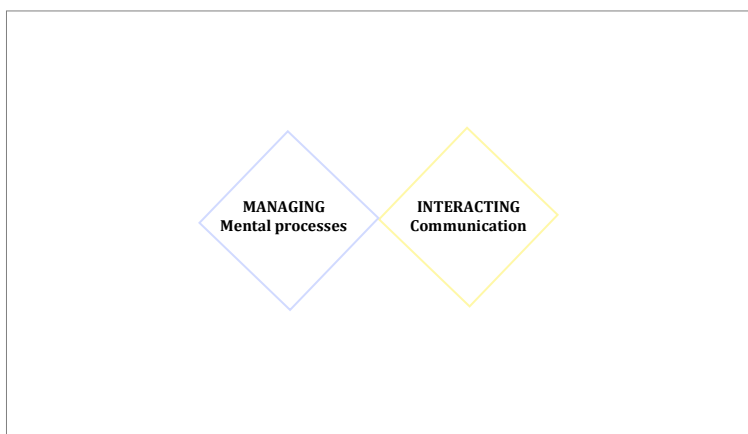
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<sup>10</sup>Logical or non-logical, will always be an evaluation. However, there is mitigation - while logic on an individual level is subjective, logic agreed upon on an aggregated level may reach knowledge status, and may thus be regarded as objective.

<sup>11</sup>In the reasoning of Gigerenzer and Brighton, the conditioning “if-part” (situation) represents an objective reality, and is only used for concept validity reasons.

“logic of justification” coincides with G & B’s toolbox perspective (as well as with business studies’ general epistemology when studying the construct, eliciting rationality of choice). From the perspective of organizational sensemaking and action, it is argued that plausibility take precedence over accuracy (Weick, 1995). “Accuracy is nice, but not necessary” (id, p. 56), even if it was, “managers seldom produce it” (id, p. 57). Therefore, Weick underlines, it is “...less productive to follow the lead of behavioural decision theorists (e.g. Kahnemann, Tversky, Thaler) who gloat over the errors, misperceptions, and irrationalities of humans, and more productive to look at the filters people invoke, why they invoke them, and what those filters include and exclude (e.g., Gigerenzer, 1991; Smith and Kida, 1991)” (Weick, 1995, p. 57).<sup>12</sup>

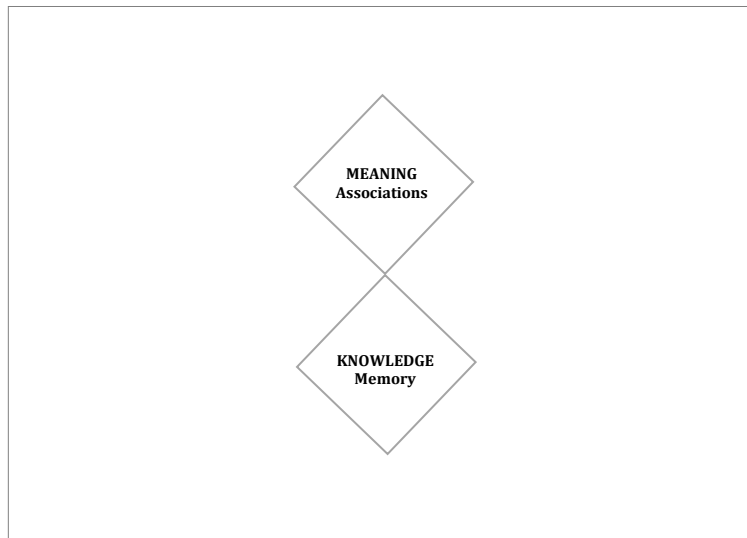
Weick’s argumentation in favour of a sensemaking epistemology is completely assumed by this paper, arguing for a whole-minded perspective (i.e. a view not omitting the dimension of meaning). The present author notably means that a sensemaking perspective is crucial if the purpose is: to understand the process of *human* (not machine) decision-making, to legitimize heuristics as logic (above being “ecologic”), and to deliver a *complementary* and potentially interesting perspective to marketing of heuristics as a logic of discovery. Considering all these reasons highly important, in synthesis a model of the widened view of the concept of heuristics will now be proposed, and further developed and investigated in subsequent chapters. A constructivist (sensemaking) approach is able to reach, and illustrate the systems thinking that lies implicit in G & B’s reasoning, and represent *one* possible answer to G & B’s research call “whether there is a system of building blocks of heuristics, similar to the elements in chemistry” (p. 134). The proposed model, that has the form of a paradigm, is in line with Weick’s epistemological stance,<sup>13</sup> and is an elaboration of learnings from the paper’s earlier discussion. First, it is an incontestable fact that the world is understood by both contemplation and interaction (figure 1). Second, the mind receives information on the one hand from what is known and memory, and on the other hand from intuition’s associative capacity to form meaning (figure 2); two different, yet interdependent, systems. This reasoning provides the explaining dimensions of heuristics (figure 3).



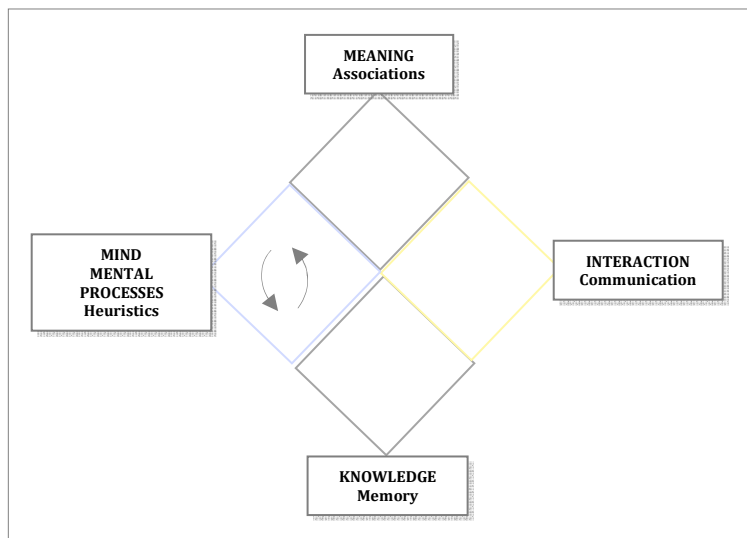
**Figure 1:** The world is understood by both contemplation and interaction.

<sup>12</sup>Cited in Weick: Gigerenzer, G. (1991) “How to make cognitive illusions disappear: Beyond “heuristics and biases”. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*, Vol. 2, pp. 83-115). New York: John Wiley.; Smith, J. F., & Kida, T. (1991), “Heuristics and Biases: Expertise and task realism in auditing”, *Psychological Bulletin*, 109, 472-489.

<sup>13</sup>Weick emphasises the precedence over accuracy, of concepts such as e.g. paradigms, metaphors, and myths, for increased understanding of sensemaking (Weick, 1995, p. 61).



**Figure 2:** The mind receives information on the one hand from what is known and memory, and on the other hand from intuition's associative capacity to form meaning; two different, yet interdependent, systems.



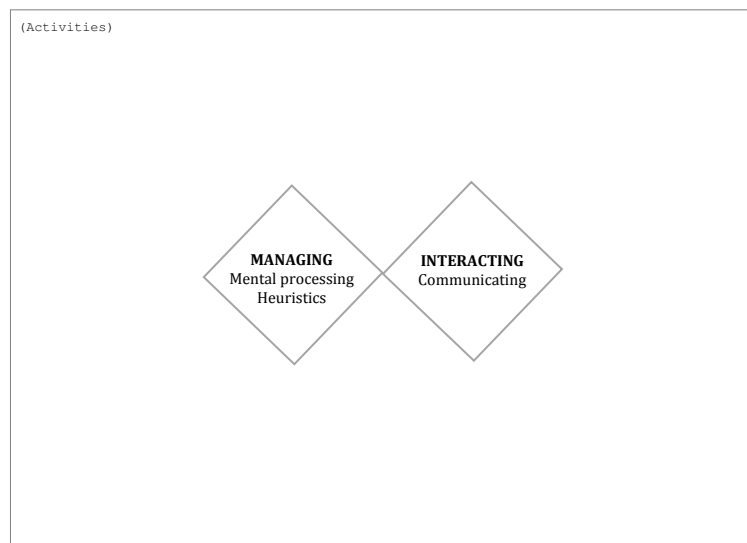
**Figure 3:** An extended view of the construct. Heuristics is a process of the mind, but emanates from the whole. The mind works by both induction and deduction (illustrated by the arrows). In an iterative, deductive process of heuristics, the frame of references may be seen as the independent variable (the first “if” part), and the chosen heuristic tool, as the dependent variable (second “then” part), together forming the outcome: the actual decision. The recognition framework contains G & B’s atomized cues that legitimize the mind’s use of a specific heuristic tool.

Specific real life situations may change the subjective evaluation framework (the first “if” part) both on an individual level and on the aggregated level of the organization. Therefore, situation-bound analysis of decision-making is as important as the meaning perspective this paper seeks include (the stances are complementary). Decision-making is a function of both internal and external variables, both views are needed, like the necessity to know the reasons for, and limits that come with, using one or the other. The present author notably argues that the construct of heuristics cannot be fully understood or captured in a void; a definition must be tied to context and purpose for using it. The model will therefore in the next chapter be integrated to a marketing context.

## Adding Heuristics to Marketing

In this chapter, the view of the organization in terms of decision-making will step by step be linked to a marketing context. First, built on the widened perspective of decision-making presented in the previous chapter, a model of heuristics on a firm, or manager, level will be developed (figure 4-6).

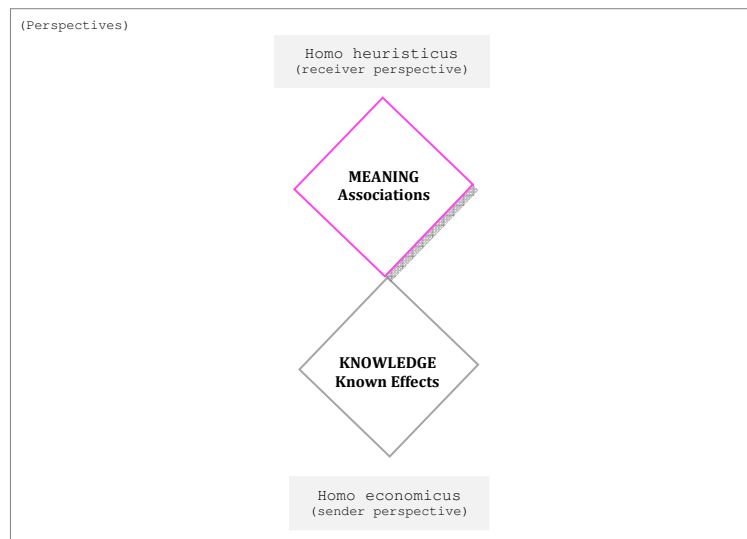
The manager, or (on an aggregated level) the firm understands the world through both contemplation and interaction. The simultaneous and ongoing activities performed on a firm/managerial level, may be resumed in managing and interacting (figure 4). Heuristics, through managing impressions, is seeking simplicity out of the complexity present in interacting.



**Figure 4:** The simultaneously ongoing activities performed on a firm (or a managerial) level, may be resumed in managing and interacting. Heuristics, through managing impressions, is seeking simplicity out of the complexity of interaction.

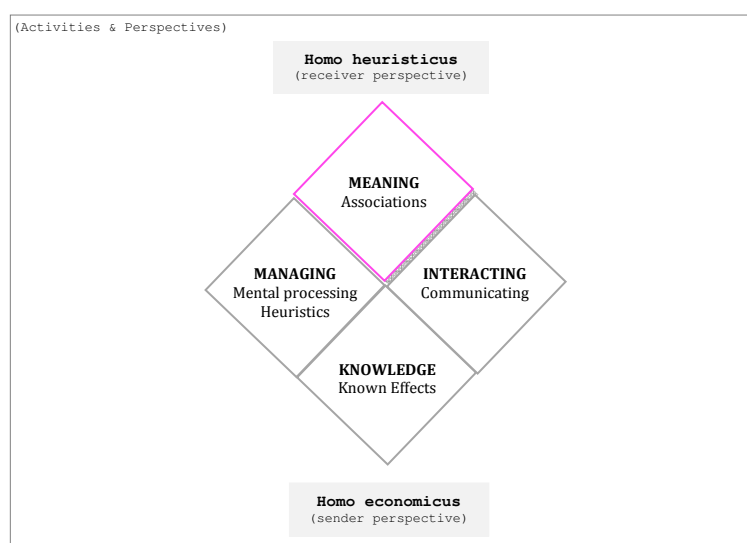
Incidentally, the two activities of “managing” and “interacting” are by the Market-as Network (M-a-N) approach referred to as the forces that drive network changes. Interaction is described as interdependencies, with its own logic and impetus, whereas managing is referred to in terms of management’s freedom of choice (Easton, 1992). To the point that interdependencies are seen as evolution’s *dominating* force, the two activity areas are seen as contradictory, and as such represent two stances (regarding epistemological perspective) within the M-a-N research tradition. The constructivist perspective of the model developed in this paper thus sees the two activities of “managing” and “interacting” as continuously and simultaneously ongoing. Furthermore, depending on the time perspective used, both stances may be sanctioned. Long-term perspective favours the deterministic view, where choice and all actions are part of, and the result of, a larger and dominating, organizing system (in that sense, no real freedom of choice). A short time perspective though puts the focus on managerial intention and heuristics, to understand mechanisms of change as well as long-term evolution in business networks.

The firm or manager performs the activities of managing and interacting with a dominating perspective typically of either homo heuristicus or homo economicus (figure 5).



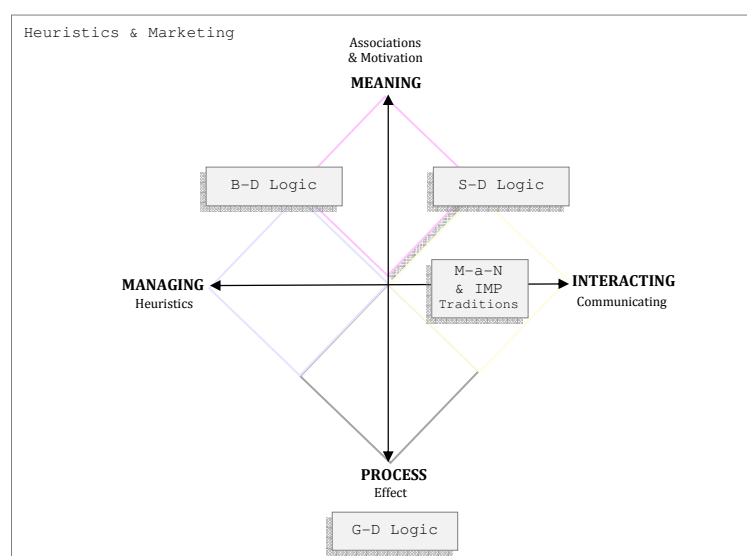
**Figure 5:** The firm, or the manager, performs the activities of managing and interacting with a dominating perspective, typically belonging to either that of homo heuristicus (representing an “outside-in” view) or to homo economicus (equivalent to an “inside-out” view).

If, the activities are executed (or studied for that matter) with the perspective of homo heuristicus, the dimension of meaning is acknowledged, adding the perspective of the receiver, i.e. an “outside-in” perspective. If, on the other hand, the perspective of homo heuristicus is *not* used, or acknowledged, the decision-maker (or the researcher) prefers to rely on a deductive logic based on what it presented objectively (e.g. in terms of a rational norm, or the product itself), equivalent to the perspective of homo economicus and the Goods-Dominant logic of marketing (Vargo and Lusch, 2004) - i.e. an “inside-out” perspective. The result of the development in figure 4 and 5 is an integrative view of the manager’s or the firm’s decision-making, inspired by the cognitive context of heuristics, discussed and developed in the previous chapter (figure 6).



**Figure 6:** A model of manager or firm heuristics, inspired by cognitive science and the human mind. The inclusion of a meaning perspective, gives an integrative view of the organization’s or the manager’s decision-making. Firm heuristics is a management concern, but emanates from the whole.

The implicit vertical sender-receiver axis in the developed model is equal to the dichotomy of the process versus the semiotic school in communication theory (Fiske and Jenkins (2010)). The semiotic school resumes well the outside-in focus of the meaning perspective. Likewise, the process school accounts for the inside-out focus of both homo economicus and the G-D logic of marketing (Vargo and Lusch, 2004). What “heuristic glasses” are different schools of marketing thought wearing? For further integration of the concept of firm and manager heuristics into marketing, this is a legitimate question. Just like homo economicus makes decisions in line with a G-D logic of marketing, it is possible to position other schools of marketing thought in the model, based on used ontological and/or epistemological stance. The developed paradigm permits a formalized and systematic study of firm and manager heuristics, providing a link between different positions in the model and corresponding high-profile schools of marketing thought. Different, complementary, or even contradictory, takes on marketing may be studied in one, integrative paradigm (figure 7).

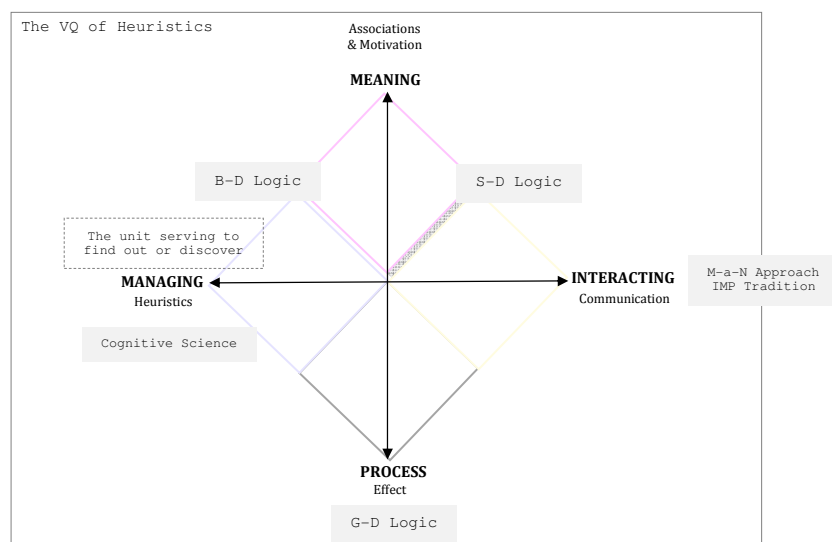


**Figure 7:** Manager or firm heuristics linked to different marketing traditions, positioned in the paradigm according to dominating ontological affiliation, and/or epistemology used.

Mainly domiciled in the field of interaction in the paradigm above, the Market-as-Network approach and the IMP tradition, aim at raising awareness of the potential in using the study of real life action as a dominant perspective for furthering understanding of business network formation and behavior. Initially, their message was delivered with a strong rhetoric against the G-D logic of marketing, and the view of homo economicus, developed during the nineteenth century’s industrialization. The Service-Dominant Logic of marketing, likewise arose in strong polemic to the G-D logic (Vargo and Lusch, 2004). Focusing on the perspective of the receiver and the perceived value of interaction, they would be domiciled on the intercept between “meaning” and “interaction”. Brand management finally, with a dominant focus on the power of emotions and signs and their manageability, is anchored on the intercept between “managing” and “meaning”. In analogy with the G-D and the S-D logics of marketing, this paper proposes the notion of a Brand-Dominant logic of marketing. The introduction of the dimension of meaning makes the paradigm above complete, whereby follows some interesting implications for marketing, which will be discussed in the next chapter.

## IMPLICATIONS

The normative perspective of heuristics focuses on accuracy and ability to predict effects. Decision-making is a complex process. The explorative discussion of this paper so far indicates that the study of heuristics potentially would benefit from a widened context – an observation valid for both the cognitive, mind level and the organizational, firm level. Returning to the underived meaning of heuristics, “the unit serving to find out or discover”, opens up for new areas of use of the construct within marketing, namely: depicting the firm’s ability to identify possibilities for innovation or value exploration.



**Figure 8:** What dimensions are actually being used for *value detection*? The VQ of firm and managers heuristics –“unit serving to find out or to discover” – is a research area that has received less attention. The position of heuristics in relation to meaning focuses on the mind’s imaginative capacity to identify value and solutions. The normative application of heuristics has a dominant focus on the effect of decision-making, its accuracy.

Based on this insight, this paper launches the idea of a new dominant logic for marketing, the Integrative-Dominant (I-D) logic, named in analogy with the marketing logics it embraces. In contrast to the silo approach of the different individual marketing logics, the I-D logic of marketing considers all the model’s dimensions (in figure 8) equally important for solution identification. New light is shed on existing marketing theories, by re-launching them as creativity methods, i.e. methods enabling to see or discover value. Decidedly, innovation demands thinking “outside the box”. Why settle with a half-minded view, when there is a whole-minded view available to discover value?<sup>14</sup>What heuristical dimensions are the firm, the manager, or a function (e.g. marketing, sales, product or service development, communication), actually using? A recent research call underscores the need to make the use of heuristics a more conscious process (Merlo et al., 2008, p. 196). Notably, by marking used dimensions in the model, the firm’s heuristics are *visualized*, and the improvement potential is unfolding in terms of complementary ways of discovering value (e.g. solutions, business opportunities, etc.).

<sup>14</sup>The change in purpose for marketing using the concept of heuristics, from predicting effects to depicting possibilities, may equally elicit a different research approach, and aim for the researcher. Having identified the heuristics in use at an aggregated level of the organization, an implicit question is: to what extent is it possible to boost the virtual intelligence quotient, the VQ, of the firm’s heuristics? Here action research, can be an interesting option, or an additional research path (to be compared with e.g. using a game situation for evaluating effects, see for example van Brüggen et al., 1998). In action research, the researcher “take on the role of active consultant and influence a process under study”(Gumesson, 2000, p. 3). Furthermore, in action research: “Particular attention will be paid to the study of decision making, implementation, and change processes within companies and other organizations” (id.).

An additional area of application of the model concerns the organizational field and implementation of strategic change. The model visualizes non-pronounced, but possibly deeply rooted marketing and strategy heuristics present within a firm (certainly considered both logical and rational by stakeholders). Based on the positioning of individual managers and functions, an informal, organizational chart is appearing. This overview, of orientations and organizational patterns at the total-system level of the firm, may prove helpful to understand the success or failure of organizational change processes. The model may also be of practical use to managers leading change processes where the status of a particular heuristics is threatened or challenged. Where in the organization is the source of value considered to develop? Who, or what functions in the organization “owns” the long-term perspective? Mind-sets regarding logic of marketing and strategy are revealing heuristics in use. The model depicts conflicts and tensions that may occur, if the organization is not aligned around a common goal and values.<sup>15</sup> Alignment is potentially offered e.g. by a successful Brand-Dominant logic of marketing,<sup>16</sup> its concern being motivation (attitudes and values) of all functions of the organization.

Considering the challenges and the needs of practice to continuously innovate and implement change, the proposed Integrative-Dominant logic for marketing actually seems to be more logic, than the silo approach offered by today’s marketing landscape. Furthermore, considering change as a negotiation between different intra-firm marketing heuristics, a view of the organization in terms of its decision-making seem to be more true than a formal, organizational chart. The proposed model of firm heuristics (in figure 8) potentially gives a good indication of the organization’s actual adaptation capability, in depicting the firm’s degree and nature of solution orientation and organizational alignment.

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<sup>15</sup>In a recent B2B case study (developed by the present author), based on 17 in depth interviews with top and operational management, in a world leading company within the metal-cutting industry, the conflicts between different heuristics is exemplified. Covering a 10-year change process of increased solution focus and brand orientation, in a firm by tradition deeply anchored in a Goods-Dominant logic of marketing, the crisis scenario of threatened heuristics unfolds, and the role of top management for reinforcing or resolving heuristics becomes evident.

<sup>16</sup>In analogy with the G-D and the S-D logics of marketing, this paper proposes the notion of a Brand-Dominant logic of marketing (c.f. p. 14 and figure 7).

## CONCLUSION

This paper has explored whether heuristics has potential as a central concept for the evolution of marketing. In conclusion the answer must be positive, the main reason being that firm and manager heuristics are good indicators of the firm's adaptation capability, in terms of innovation and implementation of change. Success is a mind-game and heuristics is the tool.

Initially, the concept of heuristics in cognitive science was discussed. A discussion of alternative reasons to study heuristics depending on purpose, ontology and epistemology, in relation to real life challenges and the needs of practice, resulted in a widening of the concept of heuristics. A whole-minded view of decision-making was proposed in a model, linking heuristics on a manager, firm and marketing logic level. The model reorganizes the view of different marketing logics, with an all-embracing Integrative-Dominant logic of marketing, placing the central issue in focus – the firm's need to increase its adaptation capability. Different interpretations of the construct of heuristics are not new. Lakatos during his career alternated between describing heuristics as a *logic of justification* and a *logic of discovery* (Kiss, 2006). What is new, to the present author's knowledge, is this paper's integration of this dichotomous connotation of heuristics, into a marketing paradigm of meaning. Lakatos' "logic of justification" coincides with G & B's (and business studies' normative) perspective of heuristics, honouring rationality of choice. "Logic of discovery" corresponds to this paper's complementary view - the VQ of manager and firm heuristics. Per definition, homo heuristicus is sanctioning the capacity of intuition; homo economicus is not. This paper's choice of a constructivist approach means fully assuming the methodological consequences of moving from a framework of homo economicus, to a context of homo heuristicus. The introduction of subjectivity and a perspective of meaning represent a non-normative epistemology in the study of heuristics, but enabled the identification of one potential answer to G & B's research call whether there is a system of building blocks of heuristics, "similar to the elements of chemistry" (G & B, p. 27).

The conceptualization of decision-making developed in this paper, permits to regard heuristics as a resource of the firm for solution orientation and organizational alignment. The aftermath, regards the organizing of marketing. There is an expanding need for research to study change processes from a marketing perspective, particularly in a B2B and industrial context, where the traditional Goods-Dominant logic of marketing in practice have prevailed unchallenged for too long and no longer applies. To be able to deal with today's challenges, a whole new approach and set of analytical models are probably required. Furthermore, there is a need to be able to talk about organizational change from a marketing and strategy vantage point in a more clear-cut way than today's silo theoretical stances permit. Therefore, there is a need for research to, in a very hands-on way, (re)define situations and phenomena occurring in these situations (e.g. the concept of market orientation). A shared terminology and frame of references will facilitate understanding, which in turn may further knowledge and capabilities. This paper is not at this point aspiring to be extensive in these respects; rather they represent a road ahead. The discussion of this paper is a first exploration into possibilities. All in all, heuristics is a concern for both practitioners and researchers; more information is not the cure when meaning is lost. To reach new meaning, attention is called to epistemology and research approach, which may have to be revised.

## BIBLIOGRAPHY

- Day, S. (2011) "Closing the Marketing Capabilities Gap", *Journal of Marketing*, Vol. 75, pp. 183-195.
- Chung-Yee, L., Cheng, T. C. E., Lin, B. M. T. (1993) "Minimizing the Makespan in the 3-Machine Assembly-type Flowshop Scheduling Problem", *Management Science*, May, Vol. 39, Iss. 5, pp. 616-625.
- Easton, G. (1992) "Industrial Networks: A review", Reprinted in Ford, D. (ed.) 2002, *Understanding Business Markets* (3<sup>rd</sup> ed.), London: Thompson Learning, pp. 123-144.
- Fiske, J., Jenkins, H. (2010) "Introduction to Communication Studies", Routledge.
- Girgerenzer, G. and Brighton, H. (2009) "Homo Heuristicus: Why Biased Minds Make Better Inferences", *Topics in Cognitive Science*, Vol. 1, Iss. 1, pp. 107-143.
- Gummesson, Evert (2000) "Qualitative Methods in Management Research", Sage Publications, Inc.
- Kahneman, D. (2011) "Thinking, Fast and Slow", Farrar Straus Giroux.
- Kiss, O. (2006) "Heuristic, Methodology or Logic of Discovery?", *Perspectives on Science*, vol.14, no. 3.
- Merlo, O., Lukas, B.A., & Whitwell, G.J. (2008) "Heuristics revisited: implications for marketing research and practice", *Marketing Theory*, 8, 2, 189-204
- Morwitz, V. G., & Schmittlein, D.C. (1998) "Testing New Direct Marketing Offerings: The Interplay of Management Judgment and Statistical Models", *Management Science*, 44(5), 610-28
- Tversky, A. and Kahneman, D. (1974) "Judgement Under Uncertainty: Heuristics and Biases", *Science*, 185, pp. 1124-1131.
- Ulaga, W. and Reinartz, W. (2011) "Hybrid Offerings: How Manufacturing Firms Combine Goods and Services Successfully", *Journal of Marketing*, Vol. 75, pp. 5-23.
- van Bruggen, G.H., Smidts, A., and Wierenga, B. (1998) "Improving decision making by means of a marketing decision support system", *Management Science*; 44, 5, 645-658
- Vargo, S. L., and Lush, R. F. (2004) "Evolving to a New Dominant Logic for Marketing", *Journal of Marketing*, Vol. 68, pp. 1-17.
- Weick, K. E., (1995) "Sensemaking in organizations", Sage Publications, Inc.
- Wübben, M. and Wangenheim, F.V. (2008) "Instant Customer Base Analysis: Managerial Heuristics Often 'Get It Right'", *Journal of Marketing*, 72, May, 82-93