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# Mathematical Battle - Ground Decisions

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## I. INTRODUCTION

Preferences are inevitable part of individual activities with daily life being a sequence of preferences. Distinctively, researchers are interested in assumptions, beliefs, habits and tactics to make preferences. Any iteration of numerical as a human endeavour would need some explanation of substrates, mechanisms and variable effects of emotional influence upon cognitive functions operative in preference-making processes relevant and relative to ecological resources. Brain considers sources of information before preference. Nonetheless, how does it do this? Why does process sometimes go awry, causing impulsive, indecisive and confused preferences that lead to potentially dangerous behaviours? Mathematical preference making offers tools for mathematical modeling behaviour. With different disciplines approaching through characteristically different techniques and substantial advances, question of how we design and how we have to craft judgments / preferences has engaged researchers for decades. This research investigates neural bases of preference predictability and value, parameters in Numerical of expected utility. - multiple - systems approach to preference - making, in turn, influences Numerical, a perspective strongly rooted in organisational psychology and science. Integration of these offer exciting potential for construction of near - accurate mathematical models of preference - making.

It is an empirical fact that natural sciences have progressed when they have taken derived principles as point of departure, instead of trying to discover essence of things. Battle - ground leader mathematical preference making has its origins in two places; in events following neoclassical mathematical revolution of 30s and in birth of cognitive science during 90s. Over the initial decade of its existence, Battle - ground leader mathematical preference making has engendered strident debates of two kinds. First, researchers have argued over whether the synthetic ground offers benefits. Second, researchers have argued over which form Battle - ground leader mathematical preference making ought to acquire. Question is how Battle - ground leaders (hereafter, Battle - ground leader) make (mathematical) preferences.

## II. BATTLE - LEADER ACTIVITY

Battle - ground leaders make (mathematical) preference makings in complex situations. Battle - ground leader mathematical preference making needs a preference maker (Battle - ground leader) responsible for mathematical preference making. This maker has number of alternatives and must choose the best alternative (or an optimised combination). When this has been made, events may have occurred (maker has no control). Each (combination) of alternatives, followed by an event, leads to a result with some quantifiable significance. Cognitive science research suggests that diverse preference orderings and preferences possibly will surface depending on which brain circuits are activated. This perchance contradicts the micro mathematical postulate that one complete preference ordering provides sufficient information to predict preference and behaviour.

Consistency properties are internal to the mathematical Battle - ground leader preference function that describes behaviour. Samuelson's revealed preference formulation is scientifically more respectable (since) if an individual's behaviour is consistent, then it must be possible to explain behaviour without reference to anything other than behaviour. Sen (2002) identifies 'internal consistency' approach and 'self-interest pursuit' approach, respectively. Internal consistency mathematical model explains behaviour by finding regularities in observed behaviour that enable to assess consistency without reference to anything other than (or external to) observed behaviour. In order to predict mathematical Battle - ground leader preferences, researchers work out which preferences are consistent by checking whether agents' do or do not violate certain axioms of revealed preference. Added approach is 'self-interest pursuit' approach. It is assumed that self-interest, represented by complete preference ordering, dominates all motivations in coherent matrix. 'Rational' behaviour will consist in pursuit of self-interest. This provides basis for application of utility theory in coherent analysis which represents chooser's preferences and explains how preferences determine mathematical Battle - ground leader preferences. Internal consistency is neither sufficient nor necessary condition of mathematical Battle - ground leader preference. It is not sufficient because '[a] person who always chooses things he values least and hates most would have great

consistency of behaviour, but he can scarcely count as a mathematical model of rationality. There may be actions that are rational but where axiomatic conditions of consistency of behaviour would not obtain. Internal (intrinsic) psychological structure of Battle - ground leader may be affected by conflicting motivations, values or goals, each of them corresponding to a different ordering and interacting in a way that precludes emergence of internally consistent preference ordering. External (extrinsic) factors may influence mathematical Battle - ground leader preference based on 'menu-dependence'. Changes may modify attitude towards other elements thereby changing preference ordering. These contravene axiomatic conditions of internal consistency which require that orderings must be independent from external conditions.

### III. TECTONICS

Human resources rely on cautious mock-up of Battle - ground leader mathematical preference making mathematical modeling. Tactic consists in construction mathematical models to display relationship between cause and incongruity. Freedom provided by introspection technique leads to a mathematical model selection problem. Management Battle - ground leader mathematical preference making-making, regarded as a mental process (cognitive process), result in selection of path of action among alternative circumstances. Each Battle - ground leader mathematical preference making-making process produces Battle - ground leader mathematical preference making. Process is regarded as incessant process integrated with situation. Investigation is concerned with rationale of Battle - ground leader mathematical preference making -making, reasonableness and invariant Battle - ground leader mathematical preference making. These reflect compensatory interface of Battle - ground leader mathematical preference making - related expanse. Specific brain structure potentiates Battle - ground leader mathematical preference making - makings depending on strategy, traits and framework. Therefore, Battle - ground leader mathematical preference making is a reasoning or emotional process which can be rational or irrational, based on explicit / tacit assumptions. This leads to formulation of a ' - management Battle - ground leader mathematical preference making paradox'. Explorations on brain mechanisms juxtapose link between brain and behaviour, known as Cognitive science, to study nal activities, connections between ns, plasticity of brain and relationship between brain and behaviour. These inherit methods as how brain encodes, processes information, stores representation in mind to craft actions in reaction to stimuli. These embrace sensation and perception of information, interface linking information in dissimilar modalities, matrix of memory and dispensation of information. Deduction is based on postulation that individual cognitive functions are based on neural activities in brain.

Researchers argue that humans make Battle - ground leader mathematical preference making by obeying laws of judgment. Expected efficacy argument has dominated understanding by assuming that under circumstances, human beings make Battle - ground leader mathematical preference making and inclination by maximizing efficacy. Nevertheless, in observing behaviours, they do not link cerebral scrutiny to decide which inclination to formulate. This holds proper for uncertain and non-risky Battle - ground leader mathematical preference making. Science plays role to understand brain in reason of behaviours. Arguments include Prospect Theory, Somatic Marker argument and Magnetic Resonance Imaging (MRI) techniques to measure waves. Key problems include how brain represents value of diverse inclinations capitulate best possible Battle - ground leader mathematical preference making. Which are the limits for testability in Battle - ground leader mathematical preference making-making experimentation? Could we experiment Battle - ground leader mathematical preference making-making flawlessly mimicking valid contexts? Is top -down control involved? Do we have liberated will and to what extent we have room for inclination, if any? Key limitation is that it is able to spot different regions of brain in definite situations. These do not offer clarification or explain (behavioural). Experimental methodology assists in understanding as to why human beings make inclinations. Arguments happen to be significant in understanding human Battle - ground leader mathematical preference making.

Battle - ground leader mathematical preference making involves detection of need, discontent within oneself, preference making to change and mindful perseverance to execute preference making. How are Battle - ground leader mathematical preference making carried out in brain? What are the general implications? Primary argument is that Battle - ground leader mathematical preference making-making is coupled with factors of uncertainties, compound objectives, interactive intricacy and apprehension that make Battle - ground leader mathematical preference making-making course of action difficult. There is the requirement for strategic Battle - ground leader mathematical preference making-making. Questions include; how to choose in situations where stakes are high with multiple conflicting objectives? How to plan for dealing with risks and uncertainties involved? How to craft options better than originally available? How to become better Battle - ground leader mathematical preference making makers? What resources will be invested? What would be the potential responses? Who will make this Battle - ground leader mathematical preference making? How should they be evaluated? How will one decide? Which of the things that could happen would happen? How can we



ensure Battle - ground leader mathematical preference making will be carried out? These questions are crucial for understanding complex human behaviours.

Research on mathematical value has produced many insights into the cognitive mechanisms that drive preferences in concrete situations, whereas research on core value allows explaining inter-individual differences in preference situations as well as intra-individual consistency across preferences over time. Whereas these different facets of the value concept so far have been investigated more or less in isolation from each other, we feel that an integration of the two perspectives would be extremely useful. In this contribution we review (a) mathematical research delineating the cognitive mechanisms underlying mathematical value computations and (b) social psychological and sociological research concerning the universal structure of core values and the role of individual core value differences in preferences and behaviours. We then propose a common framework that aims at integrating the core value concept into a science of preference-making, and support our idea by a review of recent imaging studies investigating the neural representation of core values and their potential interactions with neural mechanisms underlying value computation and preference-making.

To sum up, mathematical research has reliably identified a brain network representing mathematical value that allows predicting individual preferences and preferences. However, whereas much progress has been made identifying the cognitive mechanisms underlying concrete preferences, mathematical research has mostly neglected questions such as why Battle - ground leaders choose (and thus value) what they choose, or why different Battle - ground leaders choose (and thus value) different things. At the proximal level, this question has been addressed by looking at the impact of individual reinforcement learning histories (see Lee et al., 2012, for a review) However, more research on the distal motivational principles that can predict preferences across situations is clearly needed. Moreover, mathematical research is largely restricted to relatively simple preferences, such as preferences between two consumer goods, and rarely investigates more complex preferences and life preferences. Such issues are however addressed by researchers interested in core value, mainly from social psychology and sociology. In the following section, we will summarize some key concepts and findings from this ground.

A non-naturalistic explanation distinguishes the normative from the descriptive level, so a non-naturalistic concept of informed consent should presuppose the 'human brain' as an embedded 'human black box'. Taken together, the 'human black box' as an isolated 'human black box' is presupposed to underlie preference making, whereas the 'human black box' as an embedded 'human black box' must be affiliated with informed consent. If one identifies informed consent with preference making, as in naturalistic explanations, the distinction between the isolated and the embedded 'human black box' can no longer be maintained. Although the reasons cannot be discussed here, equating the isolated with the embedded 'human black box' is neither empirically nor conceptually plausible. The need for distinguishing between the isolated and the embedded 'human black box' in empirical and conceptual ways thus presents a strong argument against a naturalistic concept of informed consent in terms of preference making because then the distinction between both kinds of 'human black box' must be resolved. A non-naturalistic concept of informed consent is thus suggested. Such a concept no longer reduces informed consent to mere preference making and associates it with the embedded rather than with the isolated 'human black box'.

How can we resolve the ethical dilemma of impaired consent? Conceptually, it could be resolved by distinguishing between the 'human black box' of preference making and the 'human black box' of informed consent. The 'human black box' of preference making is characterised by the descriptive level and isolation from the environmental context; it is an isolated 'human black box'. In contrast, the 'human black box' of informed consent is characterised by both the descriptive and the conceptual levels, with consecutive integration into the respective environmental context; it is an embedded 'human black box'. If the isolated 'human black box' and the embedded 'human black box' are distinguished from each other, as in a non-naturalistic explanation, the organ of therapy is no longer identical to the organ of informed consent. This implies that the ability to give valid informed consent is no longer exclusively tied to preference making. Prior consent to the treatment of deficits in preference making remains no longer impossible and excluded; the ethical dilemma of impaired consent is resolved. Empirically, the ethical dilemma of impaired consent can be resolved by what researchers call a two-stage therapy of preference making.

Overall, this multi-dimensional and thus potentially integrative approach combines -biological, socio - Battle - ground leader and trans-cultural dimensions of preference-making and trust into a 'stratified image' of the human being and its behaviour(s).

Important to this paradigm is the need to characterize the interaction of physical, psychological, cultural, and even spiritual cognitions that establish various preferences, and which relate preference-actions and outcomes to evaluations of trust. We opine that this explicitly experimental (heuristic) -bio-psycho-socio - Battle - ground leader mathematical model of trust encompasses at least six dimensions:

- A neural level that proposes the neural networks involved in ecological / mathematical preference-making;
- A biological attribute that describes the evolutionary and developmental bases and relevance of preference-making and trust;
- An anthropological component that defines and describes the collective meaning and basic value of trust for human beings as a self-conscious species among other (conscious) species;
- A psychological aspect that provides a definition of trust pertinent to the specific cognitions, emotions and character of an individual;
- A philosophical dimension that regards the rational dimension of trust in the sense of an in-depth scrutiny of causes and origins as related to effects;
- A socio - Battle - ground leader level of influence, that describes dependent inter-relations with others, respective past and present experiences of these inter-relations;

In this paper we show that Battle - ground leader mathematical preference makings do none of these things. First, it does little to unify socio - Battle - ground leader phenomena because knowledge of logical mechanisms of preference-making is not explanatorily relevant for all or even most socio - Battle - ground leader scientific phenomena. Moreover, unification as such cannot be used as an evidential argument for the probable truth of Battle - ground leader mathematical preference making hypotheses. Second, that Battle - ground leader mathematical preference makings provides 'the mark of the real' for typical socio - Battle - ground leader scientific explanation rests on the mistaken intuition that causal relations are more real the closer we get to describing them in a purely physical vocabulary. Without this assumption, the finding that there is a correspondence between a psychological entity and a particular brain area does not, by itself, make the psychological entity any more real. Third, Battle - ground leader mathematical preference makings do not automatically improve Battle - ground leader mathematical preference making explanations, because mechanistic details are not always explanatorily relevant for socio - Battle - ground leader and Battle - ground leader mathematical preference making phenomena. Mechanistic details only improve the explanation of the original socio - Battle - ground leader scientific explanandum if knowledge of them effectively increases our ability to make causal and explanatory inferences about the explanandum. Thus far, however, this has rarely been the case in Battle - ground leader mathematical preference makings. Consequently, just the fact that some neural variables are directly manipulated does not necessarily mean that Battle - ground leader mathematical preference making relevant variables are been controlled. Moreover, the argument that unlike behavioural experiments, Battle - ground leader mathematical preference makings experiments obviate the need for matching the subject's and the experimenter's mathematical models, and hence afford more reliable causal inferences, overestimates the current status of logical theories of preference making.

If Battle - ground leader preference Economists could develop mathematical models that explain for subtleties of human brain, they might be able to predict complex behaviours more accurately. This, in turn, might have any number of practical applications: investment bankers could hedge against financial euphoria like Internet boom; advertisers could sell products more winningly. The idea that understanding the brain can inform Battle - ground leader preference Mathematical is controversial but not new; for 20 years, behavioural economists have argued that psychology should have a greater influence on the development of mathematical models. What is new is use of technology: economists, like other researchers, now have at their disposal powerful tools for observing brain at work. Functional Magnetic Resonance Imaging (fMRI) has been around since late 1980s; but only in past few years has it been used to study preference-making, which is crux of mathematical theory. The result is emerging ground of 'Battle - ground leader preference Numerical.' A flurry of recent papers in scientific and mathematical by Caltech Battle - ground leader preference Numerical Professor Colin Camerer shows how researchers are using neural basis of preference-making to develop new Battle - ground leader preference mathematical models.

#### IV. PREFERENCE TRAPS

Review by Thanh Pham in mathematical Battle - ground leader preference Traps indicate that most mathematical Battle - ground leader preference makers commit some kinds of errors and explore components of those errors and steps to rectify those common mistakes in mathematical Battle - ground leader preferences making. The author indicates that becoming a good mathematical Battle - ground leader preference maker is to examine process of mathematical Battle - ground leader preference-making systematically and need to work consistently to eliminate errors. Every good mathematical Battle - ground leader preference-maker must, consciously or unconsciously, go through each phase of mathematical Battle - ground leader preferences making process. The ten most common barriers often encountered in making good mathematical Battle - ground leader preferences are: 1) Plunging in - Here, we beginning to gather information and reach conclusion without first taking a few minutes to think about the crux of issue

you're facing or to think through how we believe mathematical Battle - ground leader preferences like this one should be made. 2) Frame blindness - Setting out to solve the wrong problem because we have created a mental framework for your mathematical Battle - ground leader preference, with little thought, that causes you to overlook the best options or lose sight of important objectives. 3) Lack of Frame control - Failing to consciously define the problem in more ways than one or being unduly influenced by others. 4) Overconfidence in our Judgment - Failing to collect key factual information because we are too sure of our assumptions and opinions. 5) Shortsighted Shortcuts - Relying in appropriately on 'rules of thumb' such as implicitly trusting the most readily available information or anchoring too much on convenient facts. 6) Shooting from the Hip - Believing we can keep straight in our heads all the information you are discovered, and consequently 'winging it' rather than following a systematic procedure when making the final preference. 7) Group Failure - Assuming that with many smart Battle - ground leader involved, good preferences will follow automatically and consequently failing to manage the group mathematical Battle - ground leader preference-making process. 8) Fooling Ourselves About Feedback - Failing to interpret the evidence from past outcomes for what it really says, either because we are protecting our ego or because we are tricked by hindsight. 9) Not Keeping Track - Assuming that experience will make its lessons available automatically, and consequently failing to keep systematic records to track the results of your mathematical Battle - ground leader preferences and failing to analyse these results in ways that reveal their key lessons. 10) Failure to Audit our mathematical Battle - ground leader preference Process - Failing to create an organised approach to understanding our own mathematical Battle - ground leader preference making, so we remain constantly exposed to the entire above mistake. The author indicates that good mathematical Battle - ground leader preferences making can be broken into four main elements and they are as follows: 1) Framing - Structuring the Question, this means defining what must be decided and determining in preliminary way what criteria would cause us to prefer one option to another. 2) Gather Intelligence - Seeking both the knowable facts and reasonable estimates of 'unknowable' that we will need to make the mathematical Battle - ground leader preference. 3) Coming to Conclusion - Sound framing and good intelligence do not guarantee a wise mathematical Battle - ground leader preference. Battle - ground leaders are simply unable to consistently make good mathematical Battle - ground leader preferences using seat-of-the-pants judgment alone, even with excellent data in front of us. 4) Learning from Feedback - Everyone needs to establish a system for learning from the results of past mathematical Battle - ground leader preferences. This usually means keeping track of what we expected would happen, systematically guarding against self-serving explanations, than making sure we review the lessons our feedback has produced the next time a similar mathematical Battle - ground leader preference comes along. The author also reviews each barrier and recommended steps necessary to address them. Addressing the first barrier, the author indicates a wise and timely meta mathematical Battle - ground leader preference base on four key elements above can help to avoid the mathematical Battle - ground leader preference trap one Plunging in when we start working on any major issue. We should spend time to think about the large issues we are facing. A Meta mathematical Battle - ground leader preference involves asking questions like 'what is the crux of this issue? In general, how do I believe mathematical Battle - ground leader preferences like this one should be made? How much time should I spend on each phase-as the first guess?' So before any major mathematical Battle - ground leader preference process is launched, review the Meta mathematical Battle - ground leader preference questions. To address the second barrier, the author indicates that from the greatest genius to the most ordinary clerks, we have to adopt mental frameworks that simplify and structure the information facing us. But often than not, Battle - ground leader simplify in ways that force them to make the wrong preferences and get into the mathematical Battle - ground leader preference trap number two frame Blindness. Consequently to avoid it, we should attempt to understanding frames. No frame, indeed any way of thinking, can consider all possibilities and no one can completely avoid the dangers of framing. However, we would pay dearly if we do not even know the problem exists. Here, the author' correlation of a window frame nicely illustrates the difficulties. Architects choose where to put windows to give a desired view. But no single window can reveal the entire panorama. When we choose which window to look through, or even if we decide to keep track of what's happening through three different windows, we can never be sure in advance that you will get the most useful picture. Thus, framing of a mathematical Battle - ground leader preference inevitably sets boundaries; it controls what is in and what is out. Moreover, not all elements that are 'in' will be treated equally. Our frames tend to focus us on certain things while leaving others obscured. Frames have enormous power. The way Battle - ground leader frame a problem greatly influences the solution they will ultimately choose. Also, the frames that Battle - ground leader or organisations routinely use for their problems control how they react to almost everything they encounter. Consequently, when we face a new issue, good mathematical Battle - ground leader preference-maker create a mathematical Battle - ground leader preference frame specifically designed for dealing with that problem. mathematical Battle - ground leader preferences makers fall into the mathematical Battle - ground leader preference trap number three, Lack of Frame control because we often do not choose frames. We stumble into them and found ourselves using inadequate frame. Consequently, if we match our own frame to the frames of

Battle - ground leader influence us, we can improve our performance significantly by: 1) Know Your Own Frames - we need to know how we have simplified our problems 2) Know The Frames Of Others - if we know others frame problems, we can tailor our communication to them. 3) Open Minded Framing - when we approach a new issue, try to remain open minded about the frame. Two mathematical Battle - ground leader preference traps common to most of us is Overconfidence in our judgment and Shortsighted shortcuts. These dangers can cause problems throughout the mathematical Battle - ground leader preference making process, but they particularly affect the gathering of information and intelligence. Wise mathematical Battle - ground leader preference makers avoid them and work to assure high quality intelligence. Many Battle - ground leader suffer from overconfidence in what they believe even if their belief entails a negative view of their own worth and abilities. To address this, the author indicates that we should sizing up what we know - That is, collecting information and using it systematically will reduce the dangers from overconfidence, availability bias, and anchoring. The author also indicates that overconfidence is related to another problem called Confirm bias, where Battle - ground leader's fondness for evidence that will confirm, rather than challenge, their current beliefs. Avoiding overconfidence means developing good secondary knowledge where primary knowledge consists of facts and principles we believe are true. In addition to overconfidence, we must also watch out for mathematical Battle - ground leader preferences making shortcuts. Misleading shortcuts give Battle - ground leader false intelligence, and can derail the entire mathematical Battle - ground leader preference process. Shooting from the hip barrier is when we rely on intuition to make a mathematical Battle - ground leader preference, our mind processes part or all of the information you possesses automatically, quickly and without awareness of any details. But it seldom takes proper explanation of all the information available. The author believes that initiative mathematical Battle - ground leader preferences are affected not only by the evidence that should affect our preference, but also by factors such as fatigue, boredom, distractions and recollection of a fight with your spouse at breakfast. But on other hand, initiative mathematical Battle - ground leader preferences making does have at least one advantage. It takes less time than making a mathematical Battle - ground leader preference with systematic methods. However, disadvantages of intuitive mathematical Battle - ground leader preferences making are more profound than most use realize. Battle - ground leader who make mathematical Battle - ground leader preference intuitively achieve much less consistency than they generally suspect. The author indicates that to maximize chances of making best preference if we find a systematic way to evaluate all evidence favourable to each possible preference, compare the strength of evidence on each side rigorously, then pick the preference that system indicates evidence favours. Here, mathematical Battle - ground leader preference theorists call this kind of preference system a subjective linear mathematical model. It is subjective because the importance assigned to each pro and con from human being's head, not from direct calculations based on the real world. Group Failure barrier, here groups of smart, well-motivated Battle - ground leader are mismanaged. Members agree prematurely on the wrong solution. Then they give each other feedback that makes the group as a whole feel certain that it is making the right preference. Members discourage each other from looking at the flaws in their thought process. The groups may become polarized, with members shifting unreasonably to more extreme position or clinging to opposite sides of an issue. Consequently, progresses toward a rational mathematical Battle - ground leader preference become impossible. Through researches, the author believe that groups can make better mathematical Battle - ground leader preferences than individuals, but only if they are helped along by a skillful battle - ground leader. There is little excuse for using costly group meetings to make inferior mathematical Battle - ground leader preferences. The author indicates that to make better group mathematical Battle - ground leader preferences we should do as following: 1) Intelligent, well-motivated Battle - ground leader make superior mathematical Battle - ground leader preferences in groups only if they are managed with skill. 2) The heart of good group management is encouraging the right kind of conflict within the group, and resolving it fully and fairly through further debate and intelligence gathering. 3) Battle - ground leaders must decide where in the four elements of a mathematical Battle - ground leader preference (framing, intelligent-gathering, coming to conclusions and learning from past cases) the group can make its greatest contributions. 4) Battle - ground leader should rarely state their own opinions early in group's deliberations, because many group members will fear to offer their own ideas if they contradict the battle - ground leader's. 5) Generally, battle - ground leaders should encourage disagreement in early stages of any group process. Then as more facts and insights are gained, the battle - ground leaders should guide the group toward convergence on a final preference. 6) If a mathematical Battle - ground leader preference process really deadlocks, you can often narrow the gap by separating factual issues from value issues. The author indicates that we fall into mathematical Battle - ground leader preference trap number 8, Fooling yourself About feedback, because our natural biases make learning much more difficult than we realize. When events come out well, we tend to see the success as a result of our own genius. But when events turn out badly, we rationalize an explanation that preserves our positive self-image. In addition to these biases produced by our desires, we suffer from hindsight effects caused largely by the way our minds work. Consequently, attempting to understand our biases, and can interpret feedback realistically, we can consistently turn our experiences into reliable



knowledge. The author also indicates that learning from experience is not automatic. Experience, after all, provides only data, not knowledge. It offers the raw ingredients for learning and we can turn it into knowledge only when they know how to evaluate the data for what they really say. They suggested that Battle - ground leader often do not learn as easily from experience as you might expect, even intelligent, highly motivated Battle - ground leader.

When making a preference between two or more options, one may not always know the odds of a favourable outcome. Preference-making under ambiguity and under explicit risk are two examples of preference-making without knowledge of the outcome. The author indicates that most Battle - ground leader's experience is afflicted with mathematical Battle - ground leader preference trap number 9 - Not keeping track by: 1) Missing feedback - lack of information on the key question 2) Entwined feedback - evidence is effected by actions taken by the mathematical Battle - ground leader preference maker and associates after making the initial judgment, these factors are called treatment effects 3) Confuse feedback - uncontrollable, unpredictable factors, 'random noise' that affect mathematical Battle - ground leader preference outcomes; 4) Ignore feedback - incomplete use of information on outcomes they already possess Learning from experience is especially difficult when you face an uncooperative environment like missing feedback or ambiguity due to random noise or treatment effects. To improve with experience, consequently, we need to: 1) Regularly analyse what you are learned recently and how you could be learn more 2) Conduct experiments to obtain feedback you could get in no other way and 3) Learn not just from the outcomes of past mathematical Battle - ground leader preferences but also by studying the processes that produced them. The 10th mathematical Battle - ground leader preference trap is Failure to audit your mathematical Battle - ground leader preference process. Here, we should analyse your own mathematical Battle - ground leader preferences making and identify a few key steps we ought to take to improve our mathematical Battle - ground leader preferences. Once we are located the few crucial errors, we will find that our mathematical Battle - ground leader preferences making can be improved much easily. Often than not, the author indicates that this is the most neglected or misunderstood barrier of the ten mathematical Battle - ground leader preference traps.

## V. CHALLENGES

Battle - ground leader mathematical preference making science research, as currently practiced, employs the methods of science to investigate concepts drawn from the socio - Battle - ground leader sciences. A typical study selects one or more variables from psychological or mathematical models, manipulates or measures preferences within a simplified preference task, and then identifies neural correlates. Using this 'mathematical' approach, researchers have described brain systems whose functioning shapes key mathematical variables, most notably aspects of subjective value. Yet, the standard approach has fundamental limitations. Important aspects of the mechanisms of Battle - ground leader mathematical preference making – from the sources of variability in Battle - ground leader mathematical preference making to the very computations supported by Battle - ground leader mathematical preference making-related regions – remain incompletely understood. Battle - ground leader mathematical preference making science, including its sub ground of numerical, has provided new insights into the mechanisms that underlie a wide range of mathematical and socio - Battle - ground leader phenomena, from risky preference and temporal discounting to altruism and cooperation. However, its greatest successes clearly lie within one domain: identifying and mapping neural signals for value. Canonical results include the linking of dopaminergic n activity to information about current and future rewards (Schultz et al., 1997); the generalization of value signals from primary rewards to include money (Delgado et al., 2000; Knutson et al., 2001), socio - Battle - ground leader stimuli and interpersonal interactions (Sanfey et al., 2003; King-Casas et al., 2005); and the identification of neural Markers for mathematical transactions (Padoa-Schioppa and Assad, 2006; Plassmann et al., 2007). And, in recent studies, these value signals can be shown to be simultaneously and automatically computed for complex stimuli (Hare et al., 2008; Lebreton et al., 2009; Smith et al., 2010). In all, research has coalesced on a common framework for the neural basis of valuation; for reviews see Platt and Huettel (2008), Rangel et al. (2008), Kable and Glimcher (2009). Despite these successes, other aspects of the neural basis of Battle - ground leader mathematical preference making remain much less well understood. Even where there has been significant progress – as in elucidating the neural basis of other Battle - ground leader mathematical preference making variables like probability and temporal delay – there remain key open and unanswered questions. Below are described ten major problems for future research in Battle - ground leader mathematical preference making science (Table (Table1).1). By focusing on theoretical and conceptual challenges specific to Battle - ground leader mathematical preference making science, this review necessarily omits important future methodological advances that will shape all of science: applications to new populations, longitudinal analyses of individuals, genomic advances, and new technical advances (e.g., linking single-unit and fMRI studies). Even with these caveats, this list provides a broad overview of the capabilities of and challenges facing this new discipline.



Some issues that surge out of the above are;

*A. Interactions between Cognition and Emotion in Preference Making:*

- 1) What are the reciprocal relationships between cognitive and affective processes in preference-making?
- 2) What are the biological underpinnings of above interactions?
- 3) How does emotional valence of information affect preference-making?
- 4) How do emotional factors influence reward processing, perceptual judgments, preference formation and calculation of mathematical value or subjective utility?
- 5) How do relationships between cognitive and emotional influences on preference-making alter over lifespan?
- 6) To what degree can these alters be explained by alters in underlying biological systems?
- 7) What behavioural, computational, or biological mathematical models capture interactions of cognition and emotion in preference-making?

*B. Individual Differences in Preference Making*

- 1) How do individual differences in cognitive ability, temperament, or personality impact preference making across the lifespan?
- 2) How do sex and gender influence preference-making?
- 3) How do motivational state and goal orientation influence preference making across the lifespan?
- 4) What biological systems support different motivational states that drive preference-making?
- 5) How does numeracy affect preference-making?
- 6) Are low numerate individuals more likely to use intuitive rather than analytical processing, or reasoning that operates on gist rather than verbatim details?
- 7) How consistent are discount rates for intertemporal preference across the lifespan?
- 8) What psychological and biological processes distinguish expert preference making from novice preference making?
- 9) What are the pathways by which preference-making processes and experiences influence and are influenced by biological factors?
- 10) How do environmental factors interact with biological processes to direct the development of preference-making capacities?
- 11) How does preference making, in turn, influence neural processes through epigenetic processes or differences in genetic expression profiles?

*C. Socio - Battle - Ground Leader and Contextual Influences on Preference Making:*

- 1) How do interactions with family members, peers, subordinates, or authority figures impact preference making?
- 2) How does the above context alter the interactions?
- 3) What aspects of socio - Battle - ground leader relationships support or undermine effective preference-making?
- 4) How is preference-making influenced by socio - mathematical status and/or alters therein, limited resources, or scarcity?
- 5) How can one define preference quality for individuals or groups in differing socio - mathematical conditions?
- 6) What are the effects of socio - Battle - ground leader norms, socio - Battle - ground leader pressures, and stigma on preference-making?
- 7) How do factors such as time constraints, uncertainty, ambiguity, conflict, or stress impact preference making?
- 8) How do ethical considerations and development of moral reasoning over lifespan influence preference making?
- 9) How does making preferences for one differ from making preferences for or on behalf of others?
- 10) How do long-term future outcomes vs. near-term considerations affect preference making for others?
- 11) What factors influence the process and quality of group preference making?
- 12) Do these differ as a function of life stage, group composition, or institutional context in which the preference is made?
- 13) How does the structure of institutions, provision of information or nature of incentives affect preference-making?
- 14) Do the above factors operate similarly across preference domains, across different age groups or gender, or across cultures?
- 15) How do biological factors influence preference making in different contexts?
- 16) How do environmental and biological factors affect brain development in ways that influence preference-making later in life?

The entire above give rise to a state of cognitive intricacy. Cognitive complexity can have various meanings; the number of mental structures we use, how abstract they are, and how elaborately they interact to shape our perceptions and 'an individual-difference variable associated with a broad range of communication skills and related abilities ... [which] indexes the degree of differentiation, articulation, and integration within a cognitive system'. If elements in a grid are construed in the same fashion for all constructs then the organisation of the constructs is simple, they all lead to an identical prediction. There have been a number of alternative methods for generating an index of this 'cognitive intricacy'. A tendency for constructs to be highly interrelated is sometimes termed monolithic construing. If the elements are construed in less related ways for all constructs then there is a more complex organisation leading to different predictions. Of course if the elements are construed in totally unrelated ways for all constructs then we have chaos in prediction, a totally fragmented set of constructs. Cognitive intricacy is a psychological characteristic or psychological variable that indicates how complex or simple is the frame and perceptual skill of a Battle - ground leader.

Battle - ground leader who is measured high on cognitive intricacy tends to perceive nuances and subtle differences which a Battle - ground leader with a lower measure, indicating less complex cognitive structure for task or activity, does not. Mathematical program tends to combine or, at least, to connect neural data collected and selected by the scientists on one side, and the behavioural evidence derived from the mathematical experimental protocols, on the other side. Preference Numerical is a potential bridge for translational research. Mathematical methods combine behavioural mathematical experiments to parameterise aspects of preference-making with imaging techniques to record corresponding brain activity. First, preference Numerical derive theoretical predictions and an objective metric to examine 'multilevel' research approach that combines performance (behavioural) measures with intermediate measures between behaviour and biology (imaging) to describe preference-making across multiple levels of explanation. As such, ecologically valid behavioural paradigms closely mirror the physical mechanisms of reward processing. Second, preference Numerical offers a platform for science, preference Numerical and psychology to develop a common language for interpreting preference making. Consequently, preference Numerical can offer promising endophenotypes that might help clarify basis of high heritability.

#### *D. Chaos in Preference Making*

Quite often it is argued that in the microscopic world of quantum mechanics the uncertain principle makes the world non-deterministic. And due to chaos in Battle - ground leader preference making similar things do appear in the macroscopic world of daily life. Beside the fact that both statements are wrong they are not helpful. Due to chaos in Battle - ground leader preference making, small causes may evolve in time and have tremendous effects. It leads to important effects with implications for management and business. This thesis discusses possible causes of chaos in Battle - ground leader preference making from a Battle - ground leader perspective. In preference making logic there are some rules how and when chaos in Battle - ground leader preference making is easy to describe. Almost everybody might have some understanding of the word chaos in Battle - ground leader preference making. At least in the sense as an ordinary dictionary defines it (great disorder or confusion). There is also a more elaborate definition of chaos in Battle - ground leader preference making in preference making logic.

About 25 years ago inundation of publications dealing with chaos in Battle - ground leader preference making has come into motion. Unlike in many other such cases, they have left traces in 'daily life'. Recently, chaos in Battle - ground leader preference making was used to show that Taylor's management theory can't be correct. The present thesis will not deal with possible shortcomings of Taylor's theory. It will give hints where logical considerations of chaos in Battle - ground leader preference making will become important for business / management. Which system will show chaos in Battle - ground leader preference making and which won't is one central question in most logical work about chaos in Battle - ground leader preference making. (The second question is how to describe it, if it is chaotic. It will be the central question of my next section.) Unfortunately, a global answer to the question has not been found yet. In preference making logic and math systems are normally defined by a set of equations. If all equations are entirely linear, chaos in Battle - ground leader preference making won't appear. This is obvious, because in a linear world everything is proportional to everything. I.e. a doubling of something will double other things but not quadruple. Consequently the above mentioned exponential growth can't be observed. Nonetheless, linearity is in most cases only an approximation to the real world. From this I have the bad news that chaos in Battle - ground leader preference making might lurk everywhere. The good news is that it will disappear, if nonlinearities are small enough. I.e. one can give (for certain classes of equations) exact proofs, whether their nonlinearity is big enough to cause chaos in Battle - ground leader preference making. For two reasons this is not too helpful for the present purpose. Firstly, the proofs are different for each class of equations and, evidentially, the infinite number of classes of equations couldn't have been considered. Secondly, in management we often have rules how systems will evolve. Though they can be as rigorous as equations (cf. examples 1 and 2 above), their translation into math

is not always possible. I will close this section with some rules of thumb. For pure statistical reason chaos in Battle - ground leader preference making becomes more and more likely with growing complexity of the system. Likely sources for chaotic behaviour are 'if...then...' preferences.

A discontinuity is of course a non-linearity. How strong this non-linearity is depends heavily on the difference of the two preferences within an if...then... preference. In my first example the maximum effect was a delay of a few minutes, and there is a good chance of averaging out. In the second example its effect will be a different direction (in addition to the delay). And there is no realistic chance that it will be averaged out. After having given a few guidelines how to detect chaos in Battle - ground leader preference making, I will now deal with the maybe most important question. How to handle chaotic systems? There is no standard approach to deal with chaos in Battle - ground leader preference making. The best advice is to stay out of them. Of course, that is not always possible. The second best advice is not to 'fight' the almighty enemy. Though it sounds ridiculous, I've seen many Battle - ground leaders trying to calculate solutions for chaotic problems by using bigger and bigger computers.

## VI. COGNITIVE STYLE

The key aims of this article are to relate the construct of cognitive style to current theories in cognitive psychology and science and to outline a framework that integrates the findings on individual differences in cognition across different disciplines. First, we characterize cognitive style as patterns of adaptation to the external world that develop on the basis of innate predispositions, the interactions among which are shaped by changing environmental demands. Second, we show that research on cognitive style in psychology, in cross-cultural science, on learning styles in education, and on preference-making styles in business and management all address the same phenomena. Third, we review cognitive psychology and science research that supports the validity of the concept of cognitive style. Fourth, we show that various styles from disparate disciplines can be organised into a single taxonomy. This taxonomy allows us to integrate all the well-documented cognitive, learning, and preference-making styles; all of these style types correspond to adaptive systems that draw on different levels of information processing. Finally, we discuss how the proposed approach might promote greater coherence in research and application in education, in business and management, and in other disciplines. Historically, the term 'cognitive style' refers to consistencies in an individual's manner of cognitive functioning, particularly in acquiring and processing information (Ausburn and Ausburn, 1978). Messick (1976) defines cognitive styles as stable attitudes, preferences, or habitual strategies that determine individuals' modes of perception, memory, thought, and problem solving. Similarly, Witkin, Moore, Goodenough, and Cox (1977) characterize cognitive styles as individual differences in the ways Battle - ground leaders perceive, think, solve problems, learn, and relate to others. Although it seems obvious that there are differences in how Battle - ground leaders habitually process information, it is not obvious how best to characterize such differences or determine their significance. Despite being very popular throughout the 1950s–1970s, research on cognitive styles has been seriously questioned in recent decades. Currently, many cognitive scientists appear to believe that research on this topic has reached a standstill and doubt whether the concept of cognitive style has utility. In fact, many researchers in basic and applied grounds of psychology now use concepts such as 'perceptual affordances,' 'dispositions,' 'patterns of learning,' and 'learning orientations' to conceptualize differences in how individuals perceive and interpret information, and to avoid the negative connotations associated with the idea of 'cognitive style'.

## VII. CONCLUSION

Despite the rapid decline in research on cognitive styles in mainstream psychology by the end of the 1970s, in applied grounds (e.g., education, business and management) publications on the topic continued to increase dramatically—reflecting the high practical value of the construct in applied settings. However, working in isolation from one another, researchers in each of the applied grounds developed their own terminologies, such as 'learning style' (education) or 'Battle - ground leader mathematical preference-making style' (business and management). And these terms did not have clear definitions nor was it clear how they differed from traditional characterizations of cognitive styles. Furthermore, some applied practitioners made frequent reference to, and focused on, naïve or outdated assumptions about how the brain processes information (e.g., the popular narrative about left brain versus right brain differences) or confounded and combined cognitive style with other psychological constructs. These efforts produced more chaos and led to greater skepticism among cognitive psychologists and scientists about the utility of the concept of cognitive style.

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