A short note on Remembered Present and failures of our reasoning

A recent incident that had a profound impact on me forced my hand to write the following post. To borrow a phrase from a well-known writer, *I am trespassing*, as I often do, *on the territories of the specialists*. However, this is just another commentary on a very common phenomenon and my musings are more hypothetical in nature. In a previous post, the implications of 'rule-of-thumb logic' in our daily affairs were discussed. Some of the thoughts expressed in that article can be made more relevant with the incidents about to be discussed here.

A few weeks ago, I was driving alone in heavy rain around 9 o'clock at night. The traffic was almost non-existent and lane markings were hardly visible. There was a service road next to the main road and at a distance a vehicle was coming in my direction on the service road which is situated next to a main road. Even though the roads were familiar, my mind took a sudden decision and made me drive towards nature strip dividing the service road and the main road. In haste, my mind perceived the service road as the other side of a divided road with a nature strip in the middle and for a split moment, I was on the wrong side of an empty main road.

Another such incident was recounted by a friend. One day she parked her car in the car park at a shopping centre very familiar to her. After making her purchases she walked back towards where she parked her car. With the remote controller, she unlocked the car which was of same colour as hers and very similar in appearance. She didn't notice the unlock indicators flashing. After opening the door she sat in the driver's seat and was about to adjust the mirror before she noticed an unfamiliar girl in the back seat fully immersed in her texting. Then she realised that her car had been parked next to the one she got in.

These are only a few incidents which I could recall even though such situations are very common in our daily existence. Following Prof. Gerald Edelman's selectionist viewpoint, we can find similar situations in other environments, too. An animal sensing a change in its surroundings may decide to flee even when there is no obvious danger. The flight[1] was executed by the previous value driven behaviours linking a conscious scene via *remembered present*. However,

the linking should be done via logical deduction.   I find them to be very good examples of the way in which 'rule-of-thumb' logic[2] operates. In the light of issues like binding problem, re-entry etc., the mechanisms involved are obviously more complicated than what they are made out to be in this article. However, I would still like to reflect on the connection between the sensory inputs and reality in reference to our logical systems.

When our memory looks through stacks of 'visuals' to figure out the best fit for the current scenario or the remembered present, it seems natural to use rule-of-thumb logic. These 'visuals', at least some of them, can be thought of as somewhat similar to 'Archetypes', vague in outline but specific enough to identify itself with the salient features in its form. The information about the current scenario would come in as a stream of 'visuals' which would be matched to the visuals from memory. But this is only done using the 'rule-of-thumb' logic resulting in some errors or false signals which can be viewed in a setting of Gestalt psychology. The following is a simple model which binds together the above elements we discussed. Later, we will focus on how Gestalt aspect of the model comes about.

{ Memory ('visuals') >>>>>>> matching with rule-of-thumb logic <<<<<<< Sensory Inputs} => Reality

As Gestalt implies when we match the sensory inputs with the memory, we grab the reality as a whole without always paying enough attention to the specific details which are determined by the nature of the whole. Through Prof. Benjamin Libet's and other neuroscientist's work we know that our subliminal processes play a part larger than we sense in our daily life. However, sometimes these subliminal pathways fail to tick off all the boxes while the matching happens resulting in distorted reality. That is when the 'rule-of-thumb logic' fails. We can visualise this with a two complicated jig-saw puzzle pieces. Sometimes, if we get few key contours of the pieces right, we can easily put them together. If our logic, perhaps, acting subliminally, miss a contour in the process, the two pieces wouldn't fit.

With a broader interpretation we may place the above incidents within the framework of figure-ground perception. It could be reasonable to assume that determining what we see as figure or ground is done by the 'rule-of-thumb' logic using 'visuals' in our memory. If the logic used is more advanced than what is

perceived as 'rule-of-thumb logic', there would be even less chance of false alarms. As the error management theory predicts, there is a selective bias towards committing less costly errors. For the alert animal above-mentioned, a false positive is far less costly than giving up its life. However, for our day-to-day decision making process, such a sophisticated biological framework cannot be expected to operate for the simple reason that we make umpteenth number of decisions in a day. Each one of these scenarios might not have been weighed in to see how costly an erroneous decision would be.

My main point in this article is about our routine decision making processes are largely governed by 'rule-of-thumb logic'. This logical process may be far more pervasive than meets eye and may even be embedded in our biology. When driving a car we may misjudge the space that should be allowed for an incoming vehicle on an unmarked road. That judgment is based on our rule-of-thumb reasoning. Our decisions and conclusions that are arrived at by such logic are not illogical given our past experience or memories. However, our decisions based on this 'inferior' logic cannot be fool-proof and can lead to distorted perception of reality. For an example, if we extrapolate the same logic for complex issues that we face we can see how we increase our probability of making 'wrong' decisions. Based on superficial similarities, we may conclude and predict. As a certain star always becomes visible on the horizon before the start of the yearly rainy season, there is a connection between the rainy season and the rising of star; thus, given rainy season's impact on us, we may also conclude that stars can foretell human conditions as well. Even though jig-saw pieces are not coming together, the rule-of-thumb logic can force a match. Our ingrained tendency to see things in the light of this simple logic, sometimes, via a subliminal process which we may call intuition, might have roots in our biological tendency to use this rule-of-thumb reasoning for many 'automatic' decision making processes.

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[1] The same mechanism leading to minimally counter-intuitive concepts is invoked by some researchers to find the origin of our religiosity. If I accept Prof. Edelman's version, as I like to do, the questions I need to pose myself are; how did our ancestors acquire memory patterns about ghosts? What was the

evolutionary advantage of replacing false alarms with even more false concepts which may become costly in the end?

[2] The rule-of-thumb logic is in some sense similar to the heuristics and biases idea of Amos Tversky and Daniel Kahneman. However, the rule-of-thumb logic assumes we make the best judgment under circumstances irrespective of the fact that it would be judged differently by others, on reflection or under different circumstances. If our daily judgments are often wrong, we have to be dead as soon as we in our childhood become independent of parental oversight. Similarly, judgment is not judged under this logic. Furthermore, this reasoning assumes no self-interest bias exists.