The Power of

COGNTIVE BIASES

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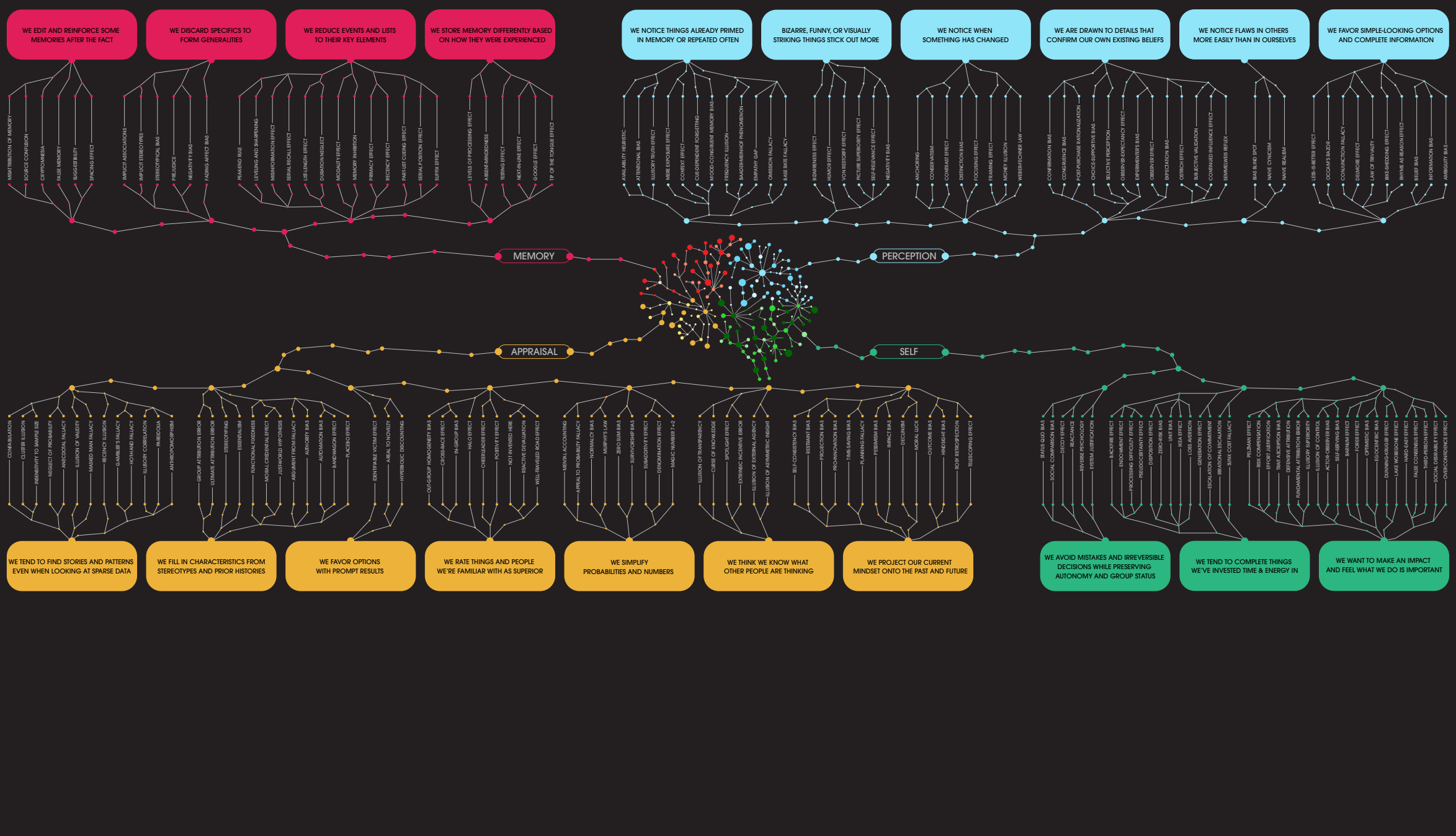
There are many non-business flieds which can be transfered to the business world. Be it the comparison to relationships, game elements, or bioengineering, as shown in this magazine. Psychology might be more obvious than others but certainly not less complex. Most products and services are developed to be used by humans. Thus, understanding humans is key to a succesfully develop a product or service.

Cognitive bias or cognitive illusion is a cognitive-psychological collective term for systematic misalignments in perception, memory, thought, and judgment. They usually remain unconscious and are based on cognitive heuristics. Heuristic is the art of coming to probable statements or practicable solutions with limited knowledge and little time. These efficient rules, which have been consolidated or learned through evolutionary processes, help with situation assessments, decision making, or problem solving in complex situations. In most cases, these rules quickly produce the expected result and therefore lead to a satisfactory problem solution. However, misjudgments may occur during application because the resulting statements deviate from the optimal solution. Heuristics are often used and lead to cognitive biases simply because we don't have enough information processing capacities. There are more than 180 cognitive biases which can influence human behavior every day. In each situation different cognitive illusions are relevant and more or less likely to predict human behavior. Taking cognitive biases into consideration massively helps to understand why people act certain ways in given situations. Reacting and adapting to these biases makes it possible to improve situations which results in a natural and easy interaction for users within these situations.

Cognitive biases can be divided roughly into four categories: perception, self, memory, and appraisal. First, biases in the category of perception explain how and what kind of information people take in. This can massively help to design situations, guide attention, ore avoid cognitive overload. Furthermore, biases not only change the way we see situations but also the way we see ourselves. Second, the category of self is mainly about how people feel in situations and why they act the way they do. It's useful to look at previous actions, or social frameworks, as well as basic human needs and desires. Third, a combination of self-awareness and situation-perception create memories. Not everything we experience is stored the same way though. The process of transforming situations to memories underlays cognitive biases as well. Emotions for example influence memories. Memories can also be changed after the fact. When designing situations the knowledge about how memories are stored can help to improve the experience beyond the situation itself. Fourth, the appraisal. Over time everyone creates beliefs and assumptions about almost everything. These stereotypes or generalities support to use cognitive heuristics, which help us analyze, conclude, and act in complex situations. Based on our assumptions and influenced by biases, previous knowledge and emotions are projected onto people and situations in present. This is one reason why people have different opinions and can feel completely different about equal situations or the same person.

For every project we go through all biases and check which of them are relevant. To each sub-category of biases a short bullet point which describes how the bias affects the situation is attached. These bullet points are sorted in different ways depending on the current project. One very useful process is to add them to a user journey. Another one is to add them to different categories, for example what is taken care of so far and what still needs to be improved. Like this a product, service, or situation can be designed far more precise which leads to way better experience for the user.