Predicting Preferences for Innovative Design: The "Repeated Evaluation Technique" (RET)

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The dilemma of innovative products /// Markets with a lot of competitive pressure move quickly. Innovations can be used to interest consumers in products, motivate them to purchase, or even get them so excited that they recommend the new products to others. Innovations offer enormous chances, but conversely also tie up many resources in a company's research and development department. They are also not always successful, not by a long shot. Above all, the acceptance of innovations by the user is a big challenge. How can you assess or evaluate whether a product will be adopted and be successful in a future market? Predicting whether an innovation will align with the tastes and needs of consumers presents a very specific challenge for market and consumer research. If we improve in this field, we can differentiate more accurately between "good" and promising innovations and "bad" innovations lacking potential. Apple founder Steve Jobs boiled this challenge down to the following thought: "Sometimes when you innovate, you make mistakes. It is best to admit them quickly, and get on with improving your other innovations."

The basic problem: predicting acceptance /// A few historical examples show that Steve Jobs' statement about innovation is very true. In every industry, companies have failed because they focused too much on innovations that didn't meet consumer tastes. A classic example from the auto industry is the *Wankel engine*, which held on too long to its very innovative engine concept at the end of the 1960s. Although the NSU Ro80, futuristically designed, equipped

with the revolutionary Wankel engine concept and using the latest aerodynamic principles, was very innovative from a technical point of view and also helped set a style, the car was nevertheless a big failure. The market wasn't ready yet for this mix of the latest technology and innovative design, and this flop ultimately cost NSU its economic independence. Conversely, though, totally rejecting innovative ideas also does not promise entrepreneurial success. This is demonstrated by products that are hardly developed further and whose producers have forfeited the marketability and relevance of the products, or products that have disappeared from the market completely. This brings to mind the East German Trabant car brand, for example. The challenge lies in confidently differentiating between successful and less successful future innovations.

**The specific problem: lack of familiarity with the new** /// Market research must clearly address this exact issue, and often fails at an equally simple yet critical problem: How do you find the right people to realistically assess innovative products? If you ask experts who were involved with the development, then they have a high level of understanding of the innovation, but are biased and can no longer make objective decisions. According to the principle of cognitive dissonance, it's rarely possible to critically assess an issue or object in which you've invested a lot of energy, time or money. If you disregard the experts and rely on unbiased individuals instead, you encounter other difficulties. They often do not understand the nature of the innovation. This standard case in marketing research should be considered in more detail: the unbiased members of the public, potential users,

and the typical market participants who are surveyed about a new product, a new service, or a new brand and who are no experts. A neutral view is actually a sensible requirement to effectively avoid loyalty conflicts to a product. But there is a downside to consider: the Average Joe generally has an aversion to innovation. Typical users are consistently averse to innovations as they usually prefer known and trusted product solutions. This conservative tendency is totally natural, as familiar products don't require any extra learning compared to innovative solutions. They conform to established cognitive routines, and for this reason alone are frequently evaluated more positively. Cognitive psychology likes to speak of the "mere exposure" effect in this context: a "positive recognition effect." On the other side, our culture appreciates innovation, as well: we might love what we know, but we are always searching for something new and exciting. Innovations provide excitement which tempts us and attracts us, but only if we feel secure. This sense of security primarily occurs when we have the time and opportunity to familiarize ourselves with new and unknown things. Many market research approaches do not fulfill such requirements at any rate. There's often no time or means for building familiarity, and a standardized procedure for familiarization is still unknown.

Systematic familiarization: the Repeated Evaluation Technique (RET) /// It is clear from the preceding commentary that a type of "systematic familiarization" is needed in order to obtain valid judgments from typical consumers. Without familiarization, the considerable innovation interest in older individuals is regularly underestimated. The

FIGURE 1:
Schematic procedure for an RET study

TESTPHASE #1   RET-ATTRIBUTE EVALUATION   TESTPHASE #2

T1 → #1 #2 #3 #4 ···· #k → T1
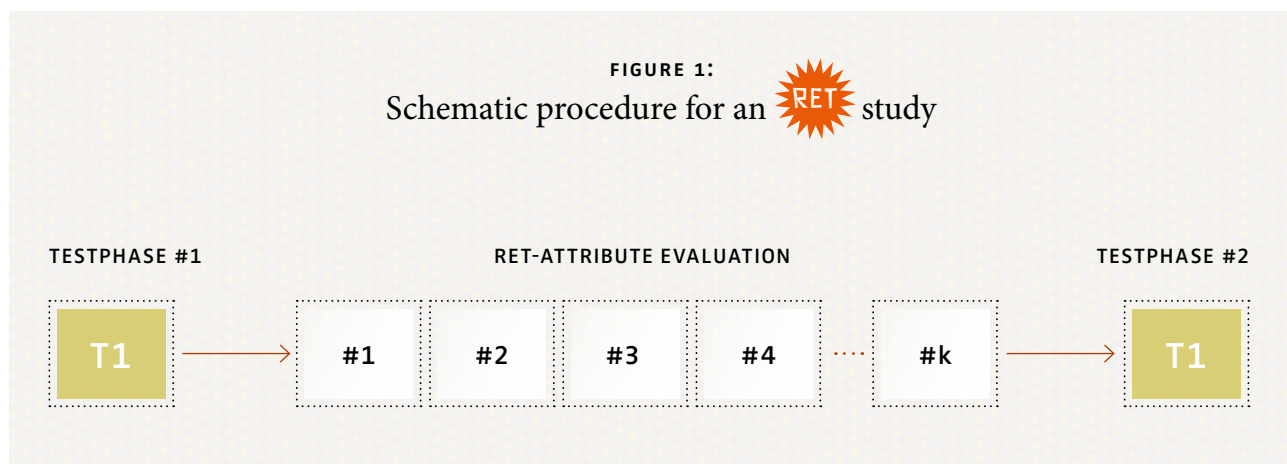
"Repeated Evaluation Technique" (RET) was developed especially for the purpose of systematic familiarization with products to be evaluated. Subjects in an RET, for example, typical consumers, are encouraged to explicitly think about a product and its competitors. This is realized through a standardized questionnaire which consists of about 10–25 attributes (see figure 1).

In such a study participants evaluate different products using individual questions. By forcing the subjects to engage with the material, known as the "elaboration," the consumers begin to understand the product better and distinguish differences. The ascertained judgments come closer and closer to real everyday assessments that one would usually only gain after weeks and months of dealing with products. A typical result is shown in figure 2. In these studies, we tested the effect of the method in people from a younger and an older age group with different rigidity characteristics. All participants were rather skeptical towards innovation at the beginning. People with fixed opinions, attitudes and ambitions are considered to be rigid. Less rigid persons are characterized by being more flexible in their assessments. After assessing the rigidity of the participants we tested the effect of the RET on products with varying levels of innovation. The participants with more flexible attitudes clearly preferred the innovative product over the less innovative product after the RET. The highly rigid participants still preferred the less innovative product after the RET. The age of the participants, on the other hand, had no influence on the results. The familiarization with the RET achieved a consistent dynamic in both young and old people with low rigidity scores.
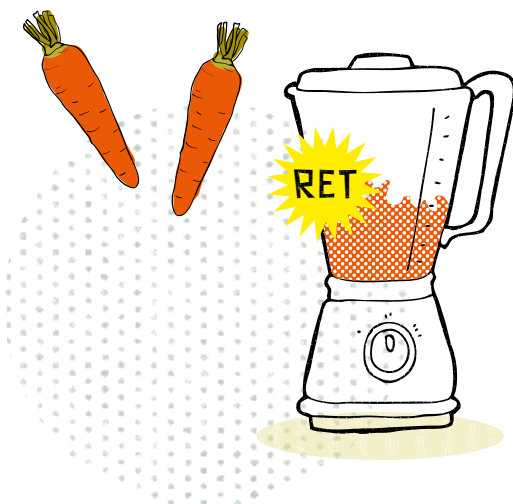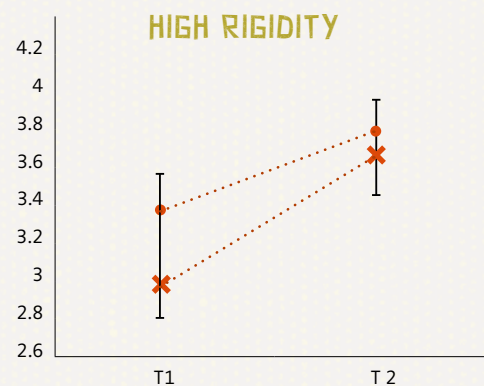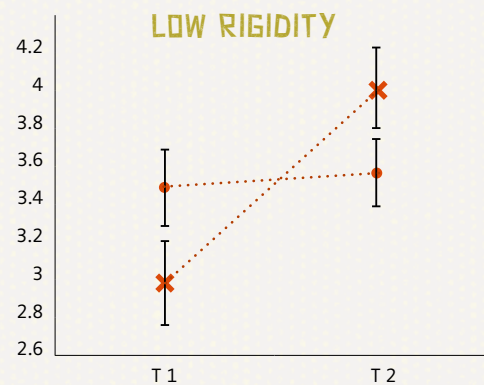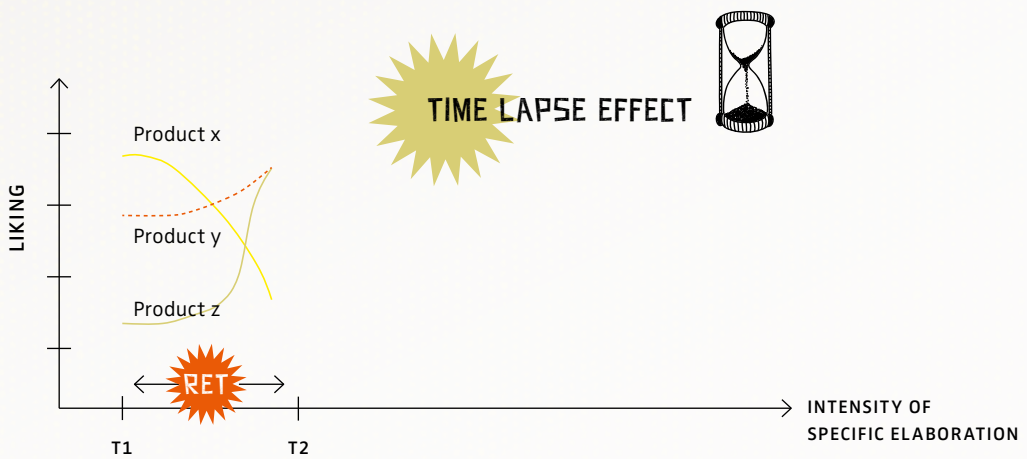

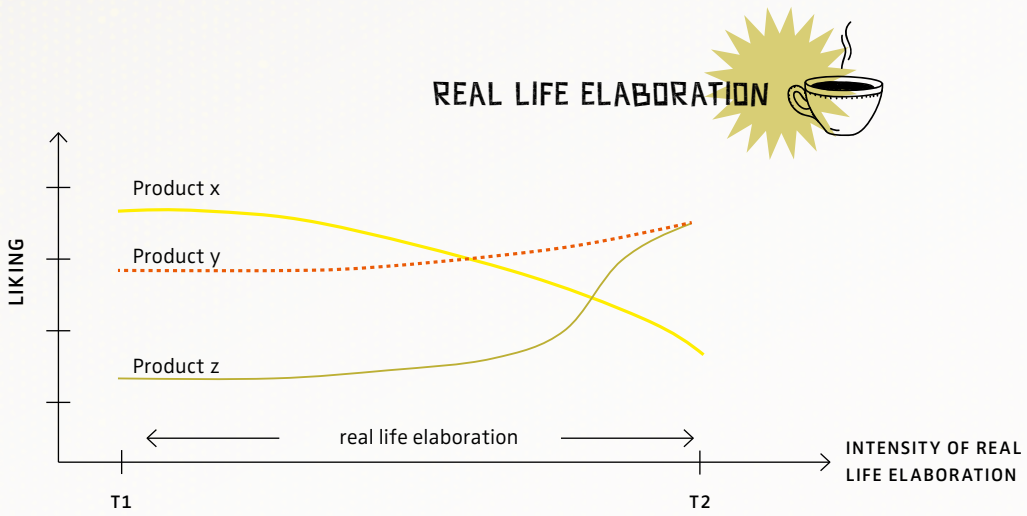**FIGURE 2:**

Typical results of an RET study for subjects with different rigidity scores

● Low Innovation

✖ High Innovation

Illustration of the time lapse effect through systematic familiarization of consumers.

REAL LIFE ELABORATION

LIKING

Product x

Product y

Product z

real life elaboration

T1   T2

INTENSITY OF REAL LIFE ELABORATION

TIME LAPSE EFFECT

LIKING

Product x

Product y

Product z

RET

T1   T2

INTENSITY OF SPECIFIC ELABORATION

A glimpse into the future of the Average Joe /// The RET provides a type of simulation of future perspectives and assessments. Consumers are made familiar with products in such a targeted and intensive manner that they no longer require the typical familiarization phase for new products in the real market environment. After going through just one RET phase, they make specific judgments, which usually would not be made without longer time and concrete experience. The RET functions like a type of time lapse which simulates the daily effect of engagement and familiarization in a short time (see figure 3). It improves the validity of preference evaluations and makes it is easy to distinguish between successful and unsuccessful innovations. The application of RET is of particular interest when the innovation and production cycles last a long time. In the automobile market, where multi-year innovation cycles are typical, the method has already been applied successfully.

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When the success of an innovation is not clear before its market launch and the real elaboration with the available product, companies will experience negative effects. Unsuccessful innovations could not be withdrawn from the market, since the cycle of renewal simply takes too long and would cause high additional costs. Using RET, you can recognize the first tendencies for low acceptance already at the pre-development, development, and pre-market launch phases. The company can then either completely stop the market launch or at least modify the product in time. Managers can alter the design, for example, or can change the marketing campaign. At any rate, they can confidently undertake the all-important task of Apple founder Steve Jobs: assessing the difference between sustainable, profitable innovations and unrewarding, short-lived or unattractive innovations.
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FURTHER READING

Carbon, C. C. (2010):
The Cycle of Preference: Long-term Dynamics of Design Properties.
Acta Psychologica, 134 (2), 233 – 244.

Carbon, C. C.; Leder, H. (2005):
The Repeated Evaluation Technique (RET):
A Method to Measure Dynamic Effects of
Innovativeness and Attractiveness.
Applied Cognitive Psychology, 19 (5), 587 – 601.

Carbon, C. C.; Leder, H. (2007):
Design Evaluation: From Typical Problems to
State-of-the-Art Solutions.
Marketing Review St. Gallen (Thexis), 24 (2), 33-37.

Carbon, C. C.; Schoormans, J. P. L. (2012):
Rigidity rather than Age as a Limiting Factor to
Appreciate Innovative Design.
Swiss Journal of Psychology, 71 (2), 51 – 58