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Dissonance à la Hindenburg

Why hydrogen can also challenge sociopsychological theories and why the laser has been switched off for a change.

In its career as a chemical wonder element, hydrogen has had its fair share of ups and downs. The hype surrounding hydrogen -"water broken down into its constituent parts" - as a source of energy dates back to the 19th century and science-fiction author Jules Verne. The fact that hydrogen harbors tremendous energy was tragically illustrated in 1937 by the burning zeppelin Hindenburg, which went down in flames in a matter of seconds just before its scheduled landing in Lakehurst, New Jersey. The airship was filled with hydrogen.

Can you already sense a certain dissonance? So many hopes and endeavors invested in hydrogen, only to realize that the result did not live up to expectations. US social psychologist Leon Festinger coined the term "cognitive dissonance" in 1957 to describe precisely this kind of unpleasant feeling. The fatal disaster that befell the Hindenburg, a photo of which entered pop culture in 1969 thanks to an album cover by British rock band Led Zeppelin, may have brought the curtain down on airship travel, but not on the dreams invested in hydrogen. After all, dissonances can be dispelled, such as by attributing other causes to the disaster (sticking with our example). It has never been conclusively established whether the Hindenburg went down in flames due to a technical defect, sheer bad luck or deliberate sabotage.

Assuming it ever went away, hydrogen is now more in focus than ever, whether as an alternative to traditional electric cars or as a storage medium for renewable energies in the context of the energy transition. Cognitive dissonances persist, however. Hydrogen is still mostly sourced from fossil fuels, meaning that its carbon footprint leaves a lot to be desired. We dispel this dissonance by playing down the contradiction to a certain extent and pointing to hydrogen's potential and its glorious future. Incidentally, Elon Musk - the pioneer of Tesla - may well have felt a dissonance between his dream of electric vehicles and the "old" automotive world. He is now solving his dissonance by adapting reality to reflect his dream.

The fact that this column makes no direct reference to the laser as it usually does, is my own personal cognitive dissonance. It makes me feel a little uneasy. And how do I solve it? By simply denying it! After all, who says that this column always has to be about lasers?

With which technology have you ever felt dissonance?
Send me your answer!

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