

Faculti Summary

<https://faculti.net/what-types-of-novelty-are-most-disruptive/>

The presented text discusses research by sociologists of science funded by the NSF, focusing on the concepts of disruption and innovation in scientific work. The researchers, led by Gina Lee and others, aim to clarify the relationship between novelty and disruption, noting that novelty is multidimensional; not all novel works are necessarily disruptive.

They differentiate between various types of novelty in scholarly articles: new results, new theories, and new methods. Surprisingly, they found that new results often did not lead to significant disruption in the field. In contrast, new theories were generally more consolidating, reinforcing existing streams of knowledge, while new methods were found to be more disruptive, suggesting they are more adaptable across disciplines.

The researchers utilized citation classics—essays written by highly cited scientists reflected upon their impactful works—to analyze the influence and disruption associated with their research. Their findings indicate that the type of novelty matters significantly in understanding how scientific knowledge evolves, leading to the conclusion that a nuanced understanding of novelty is crucial in studying scientific influence and impact. The distinction between types of novelty is seen as essential for grasping the dynamics of scientific progress.