 Our cookie policy has changed. Review our [cookies policy](#) for more details and to change your cookie preferences. By continuing to browse this site you are agreeing to our use of cookies.

Idea

The Hawthorne effect

Nov 3rd
2008

The Hawthorne effect is named after what was one of the most famous experiments (or, more accurately, series of experiments) in industrial history. It marked a sea change in thinking about work and productivity. Previous studies, in particular Frederick Taylor's influential ideas, had focused on the individual and on ways in which an individual's performance could be improved. Hawthorne set the individual in a social context, establishing that the performance of employees is influenced by their surroundings and by the people that they are working with as much as by their own innate abilities.

The experiments took place at Western Electric's factory at Hawthorne, a suburb of Chicago, in the late 1920s and early 1930s. They were conducted for the most part under the supervision of Elton Mayo, an Australian-born sociologist who eventually became a professor of industrial research at Harvard.

The original purpose of the experiments was to study the effects of physical conditions on productivity. Two groups of workers in the Hawthorne factory were used as guinea pigs. One day the lighting in the work area for one group was improved dramatically while the other group's lighting remained unchanged. The researchers were surprised to find that the productivity of the more highly illuminated workers increased much more than that of the control group.

The employees' working conditions were changed in other ways too (their working hours, rest breaks and so on), and in all cases their productivity improved when a change was made. Indeed, their productivity even improved when the lights were dimmed again. By the time everything had been returned to the way it was before the changes had begun, productivity at the factory was at its highest level. Absenteeism had plummeted.

The experimenters concluded that it was not the changes in physical conditions that were affecting the workers' productivity. Rather, it was the fact that someone was actually concerned about their workplace, and the

 Comment (5) Print E-mail Reprints & permissions

Advertisement

Follow *The Economist*

Related items

Questioning the Hawthorne effect: Light work

Jun 4th 2009

Idea: Empowerment

Oct 27th 2008

Idea: Economies of scale and scope

Oct 20th 2008

Idea: Hierarchy of needs

Oct 13th 2008

Latest blog posts - All times are GMT



Monetary policy: Five years on
Buttonwood's notebook 1 hrs 35 mins ago



The politics of poverty: Another two cents
Democracy in America 1 hrs 28 mins ago

opportunities this gave them to discuss changes before they took place.

A crucial element in Mayo's findings was the effect that working in groups had on the individual. At one time he wrote:

The desire to stand well with one's fellows, the so-called human instinct of association, easily outweighs the merely individual interest and the logic of reasoning upon which so many spurious principles of management are based.

Later in life he added:

The working group as a whole actually determined the output of individual workers by reference to a standard that represented the group conception (rather than management's) of a fair day's work. This standard was rarely, if ever, in accord with the standards of the efficiency engineers. Fritz Roethlisberger, a leading member of the research team, wrote:

The Hawthorne researchers became more and more interested in the informal employee groups, which tend to form within the formal organisation of the company, and which are not likely to be represented in the organisation chart. They became interested in the beliefs and creeds which have the effect of making each individual feel an integral part of the group.

Further reading

Gillespie, G., "Manufacturing Knowledge, A History of the Hawthorne Experiments", Cambridge University Press, 1991

Mayo, E., "The Human Problems of an Industrial Civilisation", Macmillan, 1933; 2nd edn Harvard University, 1946

Mayo, E., "The Social Problems of an Industrial Civilisation", Routledge and Kegan Paul, 1949; later edn with appendix, 1975

Roethlisberger, F.J. and Dickson, W.J., "Management and the Worker: An Account of a Research Program Conducted by the Western Electric Company, Hawthorne Works, Chicago", Harvard University Press, 1939

More management ideas

This article is adapted from "The Economist Guide to Management Ideas and Gurus", by Tim Hindle (Profile Books; 322 pages; £20). The guide has the low-down on over 100 of the most influential business-management ideas and more than 50 of the world's most influential management thinkers. To buy this book, please visit our [online shop](#).



Related topics

Chicago

Harvard University



Daily chart: Slicing the cake

Graphic detail 1 hrs 46 mins ago



Ukraine's stolen assets: A long, hard slog

Eastern approaches 2 hrs 52 mins ago



Monetary policy: No cushion needed, apparently

Free exchange 2 hrs 36 mins ago



Expanding the internet: Of drones and loons

Babbage 2 hrs 43 mins ago



Language tools: Johnson: A few favourite things

Prospero 3 hrs 29 mins ago

[More from our blogs »](#)

Most popular

Recommended



US house prices

Realty check

1

- 2 **The Economist explains:** Why Sweden has so few road deaths
- 3 **Russia and Ukraine:** Edging closer to war
- 4 **Russia, Ukraine and the West:** How will the West read Putin's playbook?
- 5 **Saving Ukraine:** How the West can help

Commented



Russia, Ukraine and the West

How will the West read Putin's playbook?

1

- 2 **Russia and Ukraine:** Edging closer to war
- 3 **Europe and Russia:** Speak loudly, carry small stick
- 4 **Charlemagne:** How to be good neighbours
- 5 **Climate science:** Inescapable truths

Recommend 109



[View all comments \(5\)](#)

Related items

TOPIC: Chicago »

America's polar vortex: How the third coast braves the cold

TOPIC: Harvard University »

Biodiversity: Now not never

Obesity in America: Healthier, not healthy

Advertisement

Products & events

Positive parenting: Beyond the naughty step
Chicago's technology sector: Start-up city

Popular philosophy in Asia: Doing "Justice" at Jaipur

Stay informed today and every day

N Get e-mail newsletters
Subscribe to *The Economist's* free e-mail newsletters and alerts.

Follow *The Economist* on Twitter
Subscribe to *The Economist's* latest article postings on Twitter

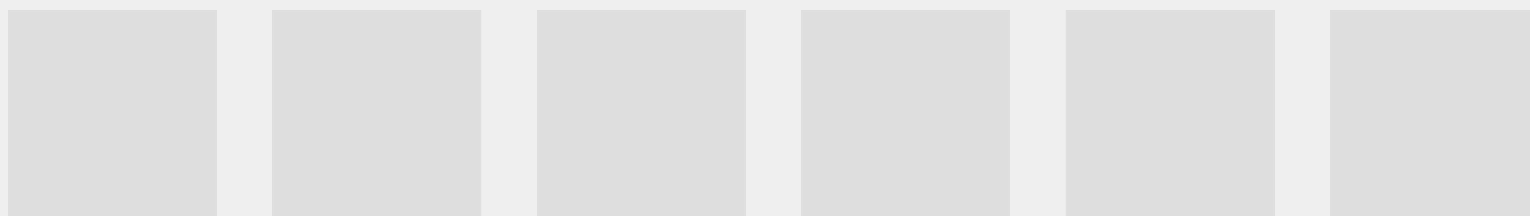
f Follow *The Economist* on Facebook
See a selection of *The Economist's* articles, events, topical videos and debates on Facebook.



Want more? Subscribe to *The Economist* and get the week's most relevant news and analysis.

Advertisement

Classified ads



Contact us

Help

My account

Subscribe

Print edition

Digital editions

Events

Jobs.Economist.com

Sections

- United States
- Britain
- Europe
- China
- Asia
- Americas
- Middle East & Africa
- Business & finance
- Economics
- Markets & data
- Science & technology
- Culture
- Multimedia library

Debate and discussion

- The Economist debates
- What the world thinks
- Letters to the editor
- The Economist Quiz

Blogs

- Americas view
- Analects
- Babbage
- Banyan
- Baobab
- Blighty
- Buttonwood's notebook
- Cassandra
- Charlemagne
- Democracy in America
- Eastern approaches
- Erasmus
- Feast and famine
- Free exchange
- Game theory
- Graphic detail
- Gulliver
- Newsbook
- Pomegranate
- Prospero
- Schumpeter
- The Economist explains

Research and insights

- Topics
- Economics A-Z
- Special reports
- Style guide
- The World in 2014
- Which MBA?
- The Economist GMAT Tutor
- Reprints and permissions

The Economist Group »

- The Economist Intelligence Unit
- The Economist Intelligence Unit Store
- The Economist Corporate Network
- Ideas People Media
- Intelligent Life
- Roll Call
- CQ
- EuroFinance
- The Economist Store

[View complete site index »](#)