

Pecking orders not just for the birds

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(Medical Xpress) -- Despite our inclination to believe equality within a team or group is important, new research suggests that a built-in hierarchy leads to fewer group conflicts and higher productivity.

A team or group with all high performers will not outperform teams or groups with an established hierarchy, the research found.

Teams in which everyone has high power are likely to experience elevated levels of [conflict](#), reduced role differentiations, less [coordination](#) and integration, and poorer [productivity](#) than teams with a broader distribution of power and status.

The research is revealed in a new report, *The Path to Glory Is Paved with Hierarchy: When Hierarchical Differentiation Increases Group Effectiveness*, written by Katharine Greenaway of The University of Queensland, Adam Galinsky of the Kellogg School of Management at Northwestern University; Richard Ronay of Columbia University and Eric M. Anicich of Columbia University.

The study confirmed the researchers' theory that “there will be greater conflict with all high-power individuals as each member jostles to take control,” thus undermining group performance.

“We found that a clear hierarchy, division of labor and patterns of deference reduce conflict, facilitate coordination and ultimately improve group productivity,” the authors said.

“On the other hand, when there are too many leaders or too few followers, group performance suffers.”

The research illustrates how the composition of a group — from sports teams to corporate work teams to political groups — affects the way the group functions.

When a group requires lots of coordination, such as when performing tasks that call for interdependence among the group members, hierarchy wins out. This is the first study that manipulated overall levels of hierarchical differences in groups and measured the effects on group productivity.

“Despite the overt appeal of egalitarian social structures, there remains an enduring implicit preference for hierarchy,” Dr Ronay said. The study suggests that this preference has its roots in “the utilitarian value of distributed power”.

The authors found similar findings among animals. Previous studies discovered egg production among chickens declined when high-producers were placed together. Citing this example, the authors note that “pecking orders, it seems, are not just for the birds”.

In the first experiment, 138 undergraduate students were randomly assigned one of three experimental conditions (high-power, low-power, baseline) and organised into same-sex teams of three high-powered participants, three low-power participants or teams with one high-power, one low-power and one baseline.

Next, the researchers had the teams perform a task that required group interdependence. In this task, each member was required to make words from 16 letters and then work as a group to combine the words into as many sentences as possible.

They also measured how the groups functioned on a second task that did not require individuals to coordinate their efforts.

The experiment showed that groups with hierarchies were more productive than groups with either all high-power or all low-power individuals. It also showed that hierarchy is most beneficial when group members are working on a task together, providing no advantage to individuals when working alone.

In the second experiment, Professor Galinsky and his co-authors examined the biological basis of hierarchal [differentiation](#) to determine whether individual differences play a role in the formation of naturally occurring hierarchies.

The researchers sought to test whether limiting variance in testosterone, a hormone associated with the pursuit of dominance and status, would disrupt development of a hierarchy and reduce [group](#) productivity.

To measure individual differences in prenatal testosterone exposure, they calculated the ratio between the length of the index finger and the ring finger, with lower ratios indicating higher levels of testosterone during prenatal development.

Next, they created groups of high-testosterone, low-testosterone or a mix of both and average testosterone.

The participants took part in the same word-and-sentence game, which is a procedurally interdependent task as described in the first experiment, while the researchers measured the conflict within the groups.

They found that the mixed testosterone groups outperformed the all high and the all low-testosterone groups, conceptually replicating the first study. Furthermore, decrements in performance by the all high-

testosterone groups were driven by increased conflict.

The experiments tested for the first time the central prediction of the functional theories of hierarchy.

“When power is distributed, intragroup conflicts decrease while coordination and productivity increase,” the researchers note. Both sets of experiments supported that conclusion.

These findings are consistent with an earlier study co-authored by Professor Galinsky that revealed hierarchal pay structures on National Basketball Association teams increased performance, promoted coordination and enhance cooperation on teams.

More information: The Path to Glory Is Paved with Hierarchy: When Hierarchical Differentiation Increases Group Effectiveness will be published in the journal *Psychological Science*.

[pss.sagepub.com/content/early/ ... 97611433876.abstract](https://pss.sagepub.com/content/early/.../97611433876.abstract)

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