



- 01
- [1] Everyone's heard the expression don't let the perfect become the enemy of the good.
- [2] If you want to get over an obstacle so that your idea can become the solution-based policy you've long dreamed of, you can't have an all-or-nothing mentality.
- [3] You have to be willing to alter your idea and let others influence its outcome.
- [4] You have to be okay with the outcome being a little different, even a little less, than you wanted.
- [5] Say you're pushing for a clean water act.
- [6] Even if what emerges isn't as well-funded as you wished, or doesn't match how you originally conceived the bill, you'll have still succeeded in ensuring that kids in troubled areas have access to clean water.
- [7] That's what counts, that they will be safer because of your idea and your effort.
- [8] Is it perfect?
- [9] No. Is there more work to be done?
- [10] Absolutely. But in almost every case, helping move the needle forward is vastly better than not helping at all.



02

- [1] Free play is nature's means of teaching children that they are not helpless.
- [2] In play, away from adults, children really do have control and can practice asserting it.
- [3] In free play, children learn to make their own decisions, solve their own problems, create and follow rules, and get along with others as equals rather than as obedient or rebellious subordinates.
- [4] In active outdoor play, children deliberately dose themselves with moderate amounts of fear and they thereby learn how to control not only their bodies, but also their fear.
- [5] In social play children learn how to negotiate with others, how to please others, and how to manage and overcome the anger that can arise from conflicts.
- [6] None of these lessons can be taught through verbal means; they can be learned only through experience, which free play provides.



03

[1] It seems natural to describe certain environmental conditions as 'extreme', 'harsh', 'benign' or 'stressful'.

[2] It may seem obvious when conditions are 'extreme': the midday heat of a desert, the cold of an Antarctic winter, the salinity of the Great Salt Lake.

[3] But this only means that these conditions are extreme for us, given our particular physiological characteristics and tolerances.

[4] To a cactus there is nothing extreme about the desert conditions in which cacti have evolved; nor are the icy lands of Antarctica an extreme environment for penguins.

[5] It is lazy and dangerous for the ecologist to assume that all other organisms sense the environment in the way we do.

[6] Rather, the ecologist should try to gain a worm's-eye or plant's-eye view of the environment: to see the world as others see it.

[7] Emotive words like harsh and benign, even relativities such as hot and cold, should be used by ecologists only with care.



04

- [1] Electric communication is mainly known in fish.
- [2] The electric signals are produced in special electric organs.
- [3] When the signal is discharged the electric organ will be negatively loaded compared to the head and an electric field is created around the fish.
- [4] A weak electric current is created also in ordinary muscle cells when they contract.
- [5] In the electric organ the muscle cells are connected in larger chunks, which makes the total current intensity larger than in ordinary muscles.
- [6] The fish varies the signals by changing the form of the electric field or the frequency of discharging.
- [7] The system is only working over small distances, about one to two meters.
- [8] This is an advantage since the species using the signal system often live in large groups with several other species.
- [9] If many fish send out signals at the same time, the short range decreases the risk of interference.



05

- [1] A young child may be puzzled when asked to distinguish between the directions of right and left.
- [2] But that same child may have no difficulty in determining the directions of up and down or back and front.
- [3] Scientists propose that this occurs because, although we experience three dimensions, only two had a strong influence on our evolution: the vertical dimension as defined by gravity and, in mobile species, the front/back dimension as defined by the positioning of sensory and feeding mechanisms.
- [4] These influence our perception of vertical versus horizontal, far versus close, and the search for dangers from above (such as an eagle) or below (such as a snake).
- [5] However, the left-right axis is not as relevant in nature.
- [6] A bear is equally dangerous from its left or the right side, but not if it is upside down.
- [7] In fact, when observing a scene containing plants, animals, and man-made objects such as cars or street signs, we can only tell when left and right have been inverted if we observe those artificial items.



06

[1] Robert Blattberg and Steven Hoch noted that, in a changing environment, it is not clear that consistency is always a virtue and that one of the advantages of human judgment is the ability to detect change.

[2] Thus, in changing environments, it might be advantageous to combine human judgment and statistical models.

[3] Blattberg and Hoch examined this possibility by having supermarket managers forecast demand for certain products and then creating a composite forecast by averaging these judgments with the forecasts of statistical models based on past data.

[4] The logic was that statistical models assume stable conditions and therefore cannot account for the effects on demand of novel events such as actions taken by competitors or the introduction of new products.

[5] Humans, however, can incorporate these novel factors in their judgments.

[6] The composite — or average of human judgments and statistical models — proved to be more accurate than either the statistical models or the managers working alone.