The Relative Price Effect Explains Behavior

Bruno S. Frey

» *The "relative price effect" states that when an activity is more highly rewarded its volume and intensity will be increased. In this concept, intrinsic motivation is neglected and hence the danger of a motivation crowding-out effect can occur.*

Economic theory assumes that – as a matter of course – individuals work more and better when they are offered more money. This view is reflected in the first pages of basic textbooks in which a typical supply curve is increasing in monetary compensation. More generally, the "relative price effect" posits that when an activity is more highly rewarded, its volume and intensity will increase. This reaction is based on the assumption that individual preferences are fixed.

Standard economic theory considers only one motivation in individual preference functions: an extrinsic one, in which selfish and rational people are induced to behave in the desired way. Extrinsic incentives may consist of monetary rewards, other material incentives, or in the threat of punishment.

B.S. Frey (✉)
University of Basel, CREMA, Zurich, Switzerland

CREMA – Center for Research in Economics, Management and the Arts, Zurich, Switzerland

B.S. Frey, D. Iselin (eds.), *Economic Ideas You Should Forget*,
DOI 10.1007/978-3-319-47458-8_23

Intrinsic motivation is disregarded. It consists in undertaking an activity because it is satisfying as such or because it follows a corresponding social norm in a noninstrumental way. For instance, a sizeable part of the population undertakes unpaid voluntary work and gives money to charities even if they are not rewarded from outside. Intrinsic motivation is also required in almost all tasks where performance cannot be fully monitored.

The crucial point overlooked by standard economics is that extrinsic and intrinsic motivations interact. When external rewards are increased, intrinsic motivation may be reduced. This is called the *motivation crowding-out effect*. It depends on two conditions: people must have some degree of intrinsic motivation to start with, and the outside intervention by offering money must be felt to be controlling, which will reduce a person's perceived self-determination and self-esteem. When people are compensated for their work, intrinsic motivation is superfluous and will accordingly be replaced partly or fully by extrinsic motivation.

A motivation *crowding-in* effect occurs when an outside intervention raises intrinsic motivation. This is, for instance, the case when an individual receives an award acknowledging good and engaging work.

Motivation crowding effects have been supported by a large number of laboratory, field, and natural experiments, as well as by careful econometric studies.

Crowding-out effects are relevant in many important areas. Some examples are:

- *Labor market,* where in particular the much heralded performance-related pay tends to crowd out intrinsic motivation to the detriment of work content. Employees are taught, and feel, that reaching the goals set by the superiors is all that matters, inducing them to lose interest in the work itself.
- *Natural environment*, where pricing instruments, such as pollution charges, may crowd out environmental morale.
- *Social policy*, where monetary payments may crowd out responsibility for one's own fate.
- *Subsidies,* which may negatively affect intrinsic entrepreneurship, innovation, and creativity.
- *Voluntary work*, where a monetary compensation tends to crowd out the very reason for engaging in that activity.

The evidence is compelling: extrinsic incentives do not always raise performance and may, in important cases, even reduce it. The relative price effect does not function in important areas and under important conditions. The existence of crowding-out and crowding-in effects suggests that individual preferences may shift in a systematic way due to external interventions.