

# Economics Education in Balance: Choosing and Cooperating



Inaugural address  
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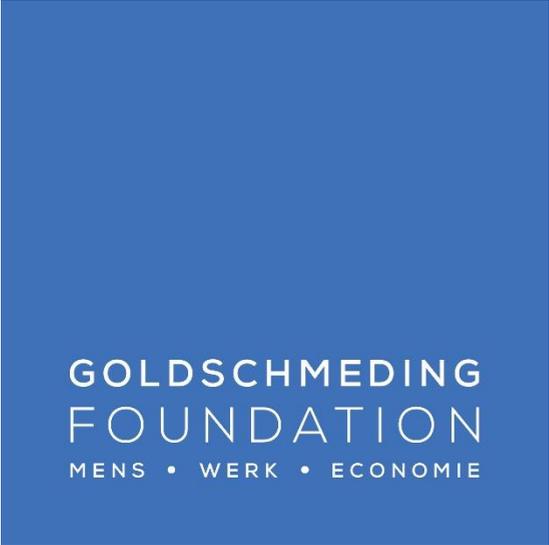
# Economics education in balance: Choosing and Cooperating

Prof. Dr. Lans Bovenberg

## Inaugural lecture

Delivered in abbreviated form at the public acceptance of the office of Professor F.J.D. Goldschmeding Chair 'Innovation in Economics Education' at Tilburg University on Thursday December 15, 2016 by Prof. Dr. A.L. Bovenberg

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## Economics education in balance: choosing and cooperating

# Economics Education in Balance

# Economics education in balance: choosing and cooperating<sup>1</sup>

A good economist is goal-oriented. My goal in a single word is: BaLance! What a wonderful word that is—and not only because it has to do with my first name. Lans wants a better balance between intellect and emotion, between individual and joint interests, and between control and trust. If you want to change the world, you should start close to home. For me as a professor in economics, this means that I should focus on economics education. For the time being, I am concentrating on high-school education at the havo/vwo<sup>2</sup> level. But my ambitions extend to the vocational schools of vmbo<sup>3</sup> and to academic education in the Netherlands and abroad.

## *What are the concrete objectives?*

My objectives for secondary economics education are described in a paper co-authored with Marcel Canoy and Ferry Haan (Bovenberg, Canoy and Haan, 2016). These objectives are meaningful, broad and transparent education. Meaningful education strengthens the link between what kids are learning at school and what they experience in their daily lives. Broad education intensifies relationships between various social sciences. Transparent education implies stronger relationships between the concepts learned.

## *Meaningful economics...*

Economics has to do with far more than the impersonal domain of money; it is also about the entirety of human existence. In other words, it involves your money *and* your life. Economics is a way of looking at all of social reality: choosing and working together to create more well-being with limited resources (in-depth module 1). The core of the economic perspective is to clarify a multitude of contexts with only a limited number of concepts (in-depth module 2). The main objective of the curriculum for economics education at the HAVO/ VWO level is to help students understand and manage their own lives well (Teulings Committee, 2002 and 2005)<sup>4</sup>.

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<sup>1</sup> The author thanks Danielle Bovenberg, Jeanne Bovenberg, Govert Buijs, Marcel Canoy, Jorien Castelein, Harry Commandeur, Frank van der Duyn Schouten, Paul van Geest, Yvonne Gerridzen, Ferry Haan, Ton van Haperen, Bart Nootboom, Wilma Paffen, Daan van Schalkwijk and Aloys Wijngaards for useful comments on earlier versions. Marcel Canoy in particular made an important contribution to making this lecture more readable by giving numerous suggestions for improvement.

<sup>2</sup> Translator's note: these are the highest two echelons of Dutch High School education.

<sup>3</sup> Translator's note: vocational training

<sup>4</sup> Teulings (2016), the spiritual father of that program, states that the primary concern of the program is not that the student understands the economics page in the newspaper, but his or her own life. Boot and Kolkman (2016) also explain that in both business and general economics attention shifts from higher levels of scale (meso and macro, respectively) to the lower micro

Everyone is an economist — including students who are not going to study economics at the university or in higher education. After all, we all manage our own lives and all collaborate with others.

*.... calls for a broad view of human beings...*

This broad view of economics implies that economics analyses all social phenomena, including education, social relations, informal care, health care, safety, environmental quality and migration. Greater understanding of these contexts requires a less rational and more relational view of human nature than is currently the case in much of economics education at high schools.<sup>5</sup>

This broader view of human nature is particularly relevant for understanding the collaborations in which students participate: the family, the school, the sports club or the circle of friends.<sup>6</sup> Teenagers are better able to identify with such a broader view of humans. After all, they themselves — just like most other people — value friendship and justice and often find it difficult to choose rationally.

*...a coherent story ....*

A [greater](#) diversity of models of human behavior and motivations requires more coherence in the curriculum. In order to keep students from missing the forest for the trees, I link the entire curriculum to one common theme: how do we create more well-being by choosing wisely and cooperating well — and what are the pitfalls?

*...in three parts*

That story consists of three subplots (figure 1):

Part 1: The ideal balance of win-win: all interests are served. This makes choosing and cooperating a source of human well-being.

Part 2: The imbalance of limited rationality and limited morality: people do not always act in their own or each other's interests. Hence, choosing and working together do not always create welfare but may actually harm it.

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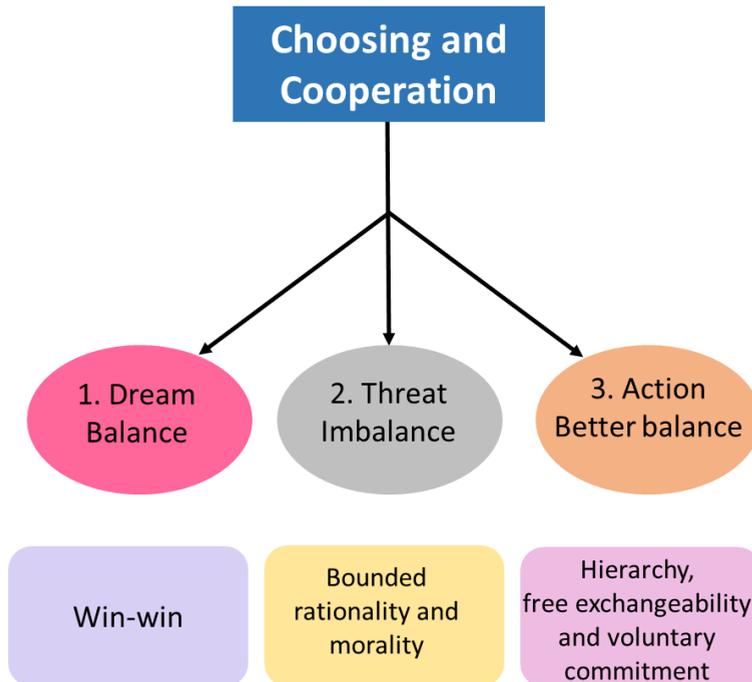
level of the individual himself.

<sup>5</sup> Bovenberg and Canoy (2016) argue that the export of economic methodology to other areas of life and other human sciences simultaneously requires the import of insights from other sciences such as biology, psychology, sociology and the humanities.

<sup>6</sup> Among the pleas for more pluriformity in university economics education, see Tieleman et al. (2016); van Damme (2016); Onderstal and Hollanders (2016).

Part 3: The improved balance. Three forms of governance — hierarchy, free exchangeability, and voluntary commitment — help to create a better balance between interests and goals. This makes choosing and cooperating an opportunity for creating welfare rather than a threat.

Figure 1. Economics in three steps



Source: own figure

*Figure 2. From swords to ploughshares*



*Source: Wordpress*

### *Transforming conflict into common interest*

In prosaic language, the narrative of economics is this: how do we transform conflict over the distribution of scarce resources into the common interest of transcending the limitations we face? A nice way to portray that story is the sculpture that the Soviet Union once donated to the United Nations, which now stands in front of the headquarters of this organization in New York: a man striving with all his might to transform swords into ploughshares (figure 2). Abraham Lincoln put it this way: 'Destroy your enemies by making them friends'.

### *Reading guide*

The next three chapters discuss the three parts of the overarching narrative: in balance, out of balance and more balance (figure 1). The text is accompanied by boxes in which the abstract concepts are applied to concrete contexts. One of these contexts are the students Anna and Ben, who are studying for their final exams. Their story is written in the grey boxes. The other applications are in beige boxes. The main text can be read without reading the boxes.

The appendix contains several in-depth modules. The first three introduce the core subject of economics (in-depth module 1), explain the way in which economists look at social reality (in-depth module 2) and detail how economists reason in a goal-oriented way (in-depth module 3).

1. In balance

## 1.1 Choosing and cooperation as an opportunity

### *Balance in conscious choice*

Economists act purposefully: they derive choices from objectives (in-depth module 3). The true '*Homo economicus*' keeps measure in everything. 'The middle' is the ideal measure: not too much, but not too little, either (in-depth module 4). In the search for balance, the best can be the enemy of the good. My father — the philosopher who influenced me most — taught me that the good life is neither black nor white but grey. My father loved balance: as an accountant he audited the balance sheets of companies.

### *Golden rule in working together*

The main rule of good governance is mutual benefit: the balance between one's own benefit and that of others. The win-win principle — treating others as you would like to be treated yourself — is also the golden rule of ethics. Balance between interests closely connects economics with law and ethics.

*Figure 3. The balance of win-win*

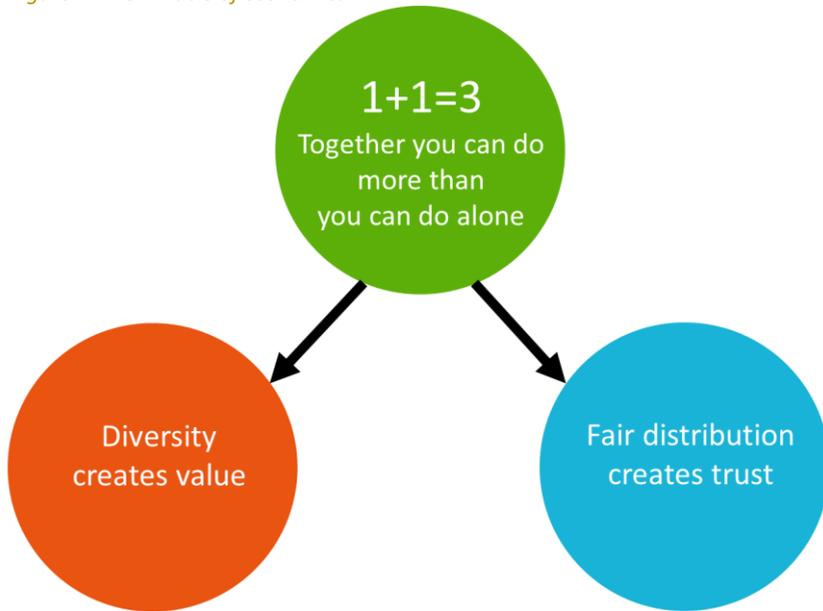


*Source: NU.nl, 2016*

### *Collaboration is not a zero-sum game*

Mutual benefit is possible because collaboration offers more than the sum of its parts; in other words,  $1+1=3$ . Economy is not a zero-sum game: your profit is not necessarily my loss. There are two foundations for  $1+1=3$  as the miracle of economics (figure 4).

Figure 4. The miracle of economics



Source: own figure

#### *Difference creates added value*

The first foundation is that diversity creates value. The more people differ in preferences or talents, the greater is the potential added value of cooperating. We know this from biology. A female yin needs a male yang for  $1+1=3$ . The economy works in the same way. Not only does collaboration *originate in* diversity; it also *produces* diversity. By cooperating, people can specialize in the activities they are relatively good at, compared to others. Hence, they differ more and more in the activities they perform and the talents they thus develop.

#### *Sharing added value stimulates cooperation*

The second foundation is sharing the value that is created by cooperation. In this way, the interests of all parties are balanced. By allowing all to benefit, everyone involved gains an interest in the cooperation and commits him- or herself to it. The most famous Dutch economist ever and the first Nobel Prize winner in economics — Jan Tinbergen — once rightly said, "Profit comes from sharing."

### *Reciprocal relationship diversity and balance*

Diversity and balance (lack of difference in the benefits of cooperation) as the two foundations of  $1+1=3$  may seem, at first sight, to be at odds. However, on closer inspection they complement each other. On the one hand, the value produced by diversity creates the gains from cooperation and thus brings about benefit for all cooperating parties. On the other hand, balance between the various interests of the parties involved ensures that the cooperation gets off the ground in the first place by ensuring that everyone has a stake in it.

#### **Anna and Ben: Part 1**

Anna and Ben can study for their final exam by themselves, or they can cooperate. Anna with her math skills then helps Ben with math, while Ben with his high grades for economics assists Anna in learning for economics. The more Anna's and Ben's talents differ, the more they can gain by cooperating. Both students will dedicate themselves to each other if they both benefit from the cooperation in the form of a better grade. To get this cooperation started, they must trust that there will be mutual benefits.

The story of Anna and Ben is an allegory to help us understand other contexts. Consider the relationship between an employer and an employee or between an entrepreneur with ideas and a financier with money. The allegory may also help in understanding certain macro-economic contexts. Consider the relationship between the rich countries in North-West Europe and the less prosperous countries in South-Eastern Europe, or the relationship between the United States and China.

#### **Example 1: Collaboration between generations**

Old and young people differ in age. Therefore, they can achieve more if they cooperate:  $1+1=3$ . The older people can take care of the younger ones if the latter are still children — for example, by raising them and financing the basic education of the young. The young people can take care of the older generations when these have become too old to work — for example, by paying for their pensions and health-care. By this caring for each other, all generations gain. Education and old-age insurance are thus related. Without mutually beneficial cooperation between generations, humans would not be able to live at all. Of all mammals, humans need the longest and most expensive period of investment before they reach maturity and can act independently. This is because the large human brains must be programmed with culture (values and beliefs) in order for humans to be able to participate in the complex and extensive cooperation that is the basis for human flourishing.

Generations can also cooperate in other ways. Older people have often saved more than young people have. They can invest their savings in creative ideas that young people may have for new businesses. In this way, the older generation enjoys good returns on their savings, while the young have the opportunity to actually implement their ideas. Once again, we see how variety — in this case in age — leads to mutually beneficial cooperation and how pension saving of the older generations and investments in the younger generations are closely connected.

## Example 2: Money as exchangeable trust

Money is one of the most valuable social innovations in the history of humankind. It makes cooperation possible between people who do not know and trust each other personally. Money creates the foundation for complex and elaborate cooperation, namely trust in reciprocity. Money is a promise of a debtor who everyone knows and trusts (see figure 5). Confidence in the faith of all in this debtor ensures that people are willing to accept a promise of that debtor in return for helping each other. Shared faith (in the commitment of the debtor and in the faith of others in that commitment) thus creates the trust that is required for large-scale cooperation. People serve each other because they trust that they will receive something in return from somebody else — who also trusts in the commitment of the debtor they all know (and in the trust of the others in the commitment of this debtor).

The innovation of money means that each person's trade with another person no longer needs to be bilaterally balanced. This makes possible much more complex elaborate cooperation and thus leads to value creation. Only trade with the community as a whole needs to be balanced. This is called 'indirect' reciprocity because you in fact exchange with the society as a whole rather than with each person individually. People also do not need to trust each other's personal creditworthiness when they exchange over time because they can rely on the collateral of money as the promise they trust. Instead, they only have to trust the commitment of a single debtor (and the faith of the other people in the society in that commitment). I can then give you more than I get back from you because I can trust that I get something back from someone who trusts the single debtor we all know. Money as exchangeable liquid trust (because, we all trust that we all trust) facilitates freedom, liquidity and competition: I do not have to buy from the person I am selling something to.

*Figure 5. Money as transferable trust*



*Source: World Press*

### Example 3: Diversity and balance in macroeconomics

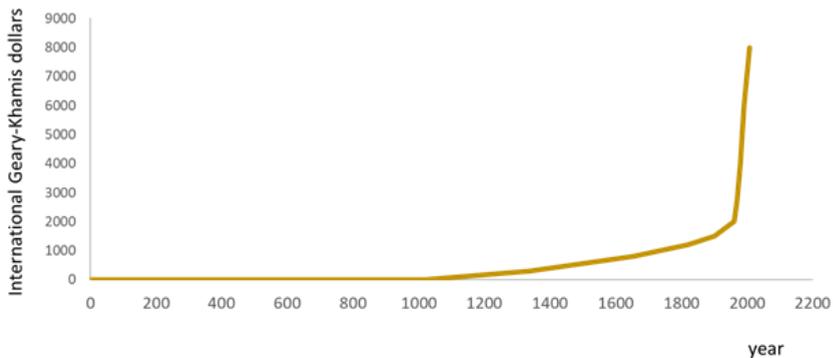
Diversity and balance also play a major role in macroeconomics. Herd behavior because of conformism destabilizes the economy. Macroeconomic stabilization policies thus go against the current to balance the economy. Countercyclical macroeconomic policy thus shows how diversity creates stability. Going against the grain by being strict when others are euphoric and being generous when others despair: parents will recognize this as a sensible stabilization policy when raising children.

The balance of win-win is essential also for the long-term growth potential of the economy as a whole. Inclusive governance that is committed to serving the welfare of all citizens creates the trust of all citizens that their interests are safe. This encourages them to innovate and to dedicate themselves to serve others. By creating trust in reciprocity, inclusive governance is the foundation for a strong economy (Acemoglu and Robinson, 2012).

### Economic History

When humans discovered the power of mutual benefit, wealth grew exponentially.

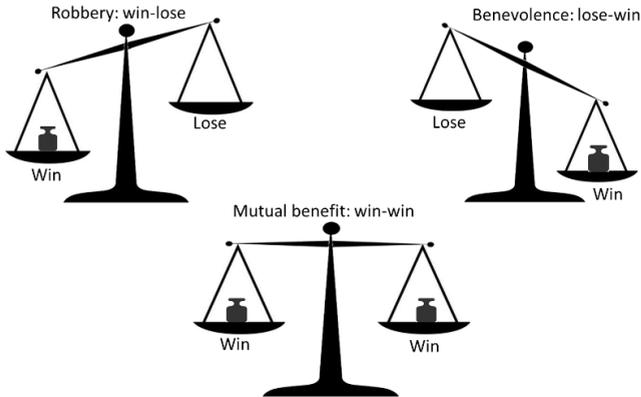
Figure 6. Growth of prosperity in the world, BBP per capita



Source: Our World on Data

The father of the discipline of economics — Adam Smith — understood the great significance of the balance of win-win. Social relationships need not be based on philanthropy (lose-win) or robbery (win-lose). There is a third way next to giving (lose-win) or taking (win-lose): namely, a balance of giving and taking (win-win) (figure 6). Trust in mutual benefit transforms conflict over the distribution of scarce resources into the common interest of together transcending this scarcity. In this way, potential enemies become partners (figure 2 and in-depth module 5). When society discovered the power of mutual benefit, prosperity exploded (figure 7).

Figure 7. Three forms of social relationships



Source: own figure

### Win-win and social geography

The power of the win-win principle is evident not only in history but also in the comparison of countries with the same climate and culture. An illustration of this is the great difference in welfare between North and South Korea (figure 8) or between East and West Germany before the fall of the Berlin wall in 1989.

Figure 8. North and South Korea



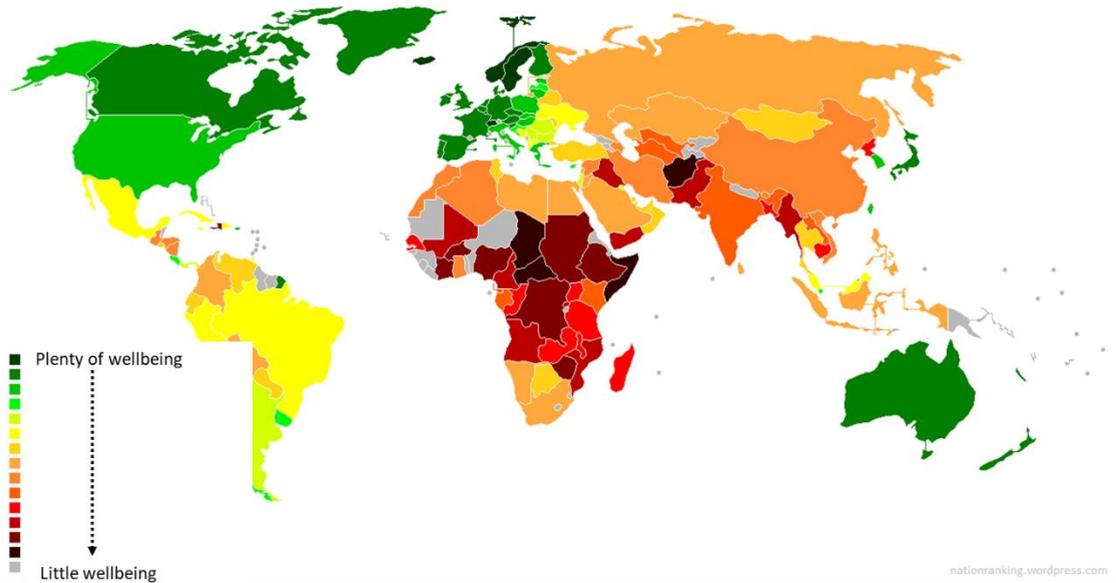
Source: Extremetech 2011

Countries where the government only serves a small group of elites are poor (in-depth module 6). People in these countries invest their energy in disenfranchising their fellow citizens or in protecting themselves rather than in activities that are useful to others (Acemoglu and Robinson, 2012).

*The Netherlands in 2016 is beautiful...*

When it comes to quality of life rankings, the Netherlands plays in the Champions League (figure 9). Why do we live in such an attractive place to which so many people want to migrate? The answer is that mutual benefit has never been applied more extensively than is the case in the “Champions League” countries in Northwest Europe, North America, Australia and New Zealand.

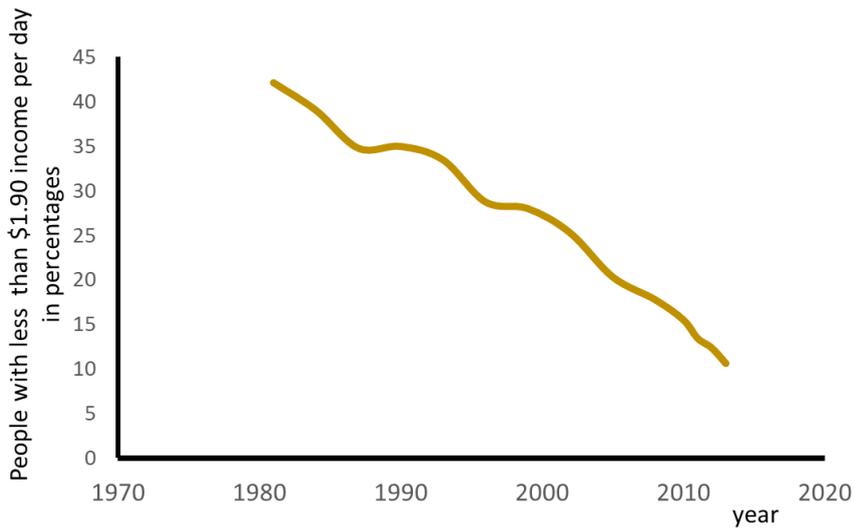
*Figure 9. Human Flourishing in different parts of the world*



*Source: Nationranking: Wordpress*

In addition, the decline in poverty in the world over the past three decades (figure 10) is the result of more trade and more cooperation between countries as well as the creation of domestic institutions that serve the interests of more citizens.

Figure 10. Poverty in the World



Source: Worldbank Development Research Group, 2016

*...but there are still many challenges*

At the same time, there is still much to improve in the Netherlands as well in the world. We face major challenges: great inequality between countries, growing migration flows, climate change, declining biodiversity, increasing inequality within countries (Piketty, 2014) and growing populism. There is also still too much poverty — also in the Netherlands (in-depth module 7). Many of these challenges require social innovation: how do we ensure that interests run parallel in an increasingly complex and intertwined world?

## 1.2 Economics education

Win-win in education means doing justice to the interests of all stakeholders, namely students, parents, teachers, schools, future employers, and government (as a representative of the public interests). This section discusses the interests of pupils and teachers as well as society and government.

### 1.2.1 Pupils and teachers

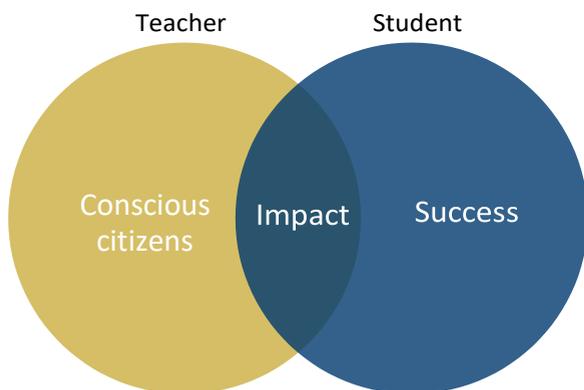
#### *Success and conscious citizenry*

The main deeper motivation for students in high school to study economics is to learn how to make good choices. As they grow up, young people take on more and more responsibility for shaping their own lives. They therefore want to learn how to govern their lives. This involves, among other things, investigating the relationships between their choices and the consequences for themselves and others.

#### *Impact*

This desire of students fits well the common approach of economics in which the optimal choice is derived from the objectives and the relationships between choices and these goals (in-depth module 3). It is also in line with the objective of the official high-school curriculum in economics: using a limited number of concepts to help students better understand and manage their own lives (in-depth module 2).

Figure 11. Motivations of students and teachers



Source: Flare, 2016

## 1.2.2 Society and government

*Win-win at the macro level...*

Equal opportunities for young people to develop their talents in basic education is essential for an economy that benefits everyone (in-depth module 6).

*...and growing complexity and interconnectedness ...*

A related reason for the importance of education is the growing complexity and interconnectedness of society. Citizens are increasingly being asked to govern and regulate themselves because of the ever-growing difficulty of managing organizations from the top down. While simple skills are being automated, the work that remains concentrates on skills that cannot be easily codified, automatized and computerized: entrepreneurship, creativity and genuine service.

*...demand much from education*

Instead of focusing on the reproduction of concepts, education should develop the skills that enable young people to govern themselves (Heckman, 2000) — skills such as applying the balance of win-win in ever-changing contexts (Platform Education2032, 2016). In fact, the win-win principle at the macro level of society requires all citizens to be able to apply this principle at the micro level in their own lives.

## 2. Out of balance

## 2.1 Choosing and working together as a challenge

A famous quote from Adam Smith is, "*Nobody ever saw a dog make a **fair and deliberate** exchange of one bone for another with another dog.*" In other words, **those who are** not strong must be smart and social. Humans have conquered the world because of their intellect and their morality. Economics and ethics are two sides of the same coin of win-win (in-depth module 8). With our heads and hearts we can make connections between our choices and the consequences for others and ourselves.

These human abilities to make connections are, however, limited (in-depth module 9): people desire to do good but do not always act in their own interests (Kahneman, 2011) or in the interests of others (Ariely, 2012). Instead of the balance of win-win, the imbalance of lose-win (you harm your own interest) or win-lose (you harm the interests of others) applies. Choosing and cooperating well does not occur automatically.

Limited rationality makes choosing not only an opportunity but also a challenge. After all, if you are given the opportunity to govern yourself, you can make mistakes.<sup>7</sup> Limited morality makes cooperation a risk: can you trust your cooperation partner to take your interests into account? People easily deceive themselves by not facing the damage they cause to the interests of others (Ariely, 2012). Our empathy for others is only limited.

Cooperating is especially challenging when partners differ greatly from one another in terms of preferences and talents. Collaboration then has the potential to yield great benefits (section 1.1). However, it is also more difficult to understand others and to empathize with them if they perceive the world differently than we do ourselves. If we fear the greed of others, it is hard for us to muster the courage to take the risk of cooperation. That is why potentially valuable cooperation often does not come about even though it has the potential to create welfare.

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<sup>7</sup> Aristotle was convinced that choosing wisely takes effort: investing time and energy to acquire virtues. These virtues enable people to make wiser choices by better balancing conflicting goals.



**Anna and Ben: Part 2.**

Anna does not trust that Ben will make sufficient effort to teach her economic concepts. She therefore prefers to study on her own. This way she does not run the risk of Ben cutting corners, which might lead to her failing the course.

Suppose Anna has to choose between working out and learning for the exam. She knows that when it comes down to it, she will always choose a sport workout, even though she knows that she will regret it later. She therefore asks Charlotte to help her make her decision, by inviting her to the library to study.

**Example 4: The dangers of money***Unit of account*

Money, as a unit of account, helps people to compare values based on one common denominator. This allows them to make better decisions. The visibility of money, however, can lead to 'money illusion'. People then place too much value on money and confuse money *as a means* with the *goal* of prosperity or happiness. This imbalance harms welfare — especially since the most important things in life (such as friendship, identity, meaning and motivation) are not for sale.

*Medium of Exchange*

Money as transferable trust is extremely valuable in unlocking the potential mutual gains from cooperation in a complex, highly interconnected economy (Example 2). At the same time, however, financial incentives also have their limitations — especially if people cooperate with only a few persons who they know personally. Instead of using impersonal money, people then prefer to rely on gift exchange founded on personal promises and personal trust. Personal relationships are not only a means to create material welfare but also an independent end; in addition to material goods and services, immaterial goods such as mutual trust and love are exchanged in personal relationships. Monetizing these relationships can erode this immaterial welfare.

*Store of value*

Money as a store of value is a mixed blessing. A money economy can be caught in a so-called liquidity trap because of an excessive love for money as a store of value: if people hoard money because they have no faith in other relationships, demand for goods collapses and the economy goes into recession, resulting in widespread unemployment. Some money should be spent in order to keep the real economy going: money is a means rather than an ultimate end.

## 2.2 Economics education

### *Conditionally cooperative*

Recent academic research in behavioral and experimental economics has yielded a more relational view on human nature (in-depth module 9). In particular, experiments show that the human dimension of small-scale cooperative relationships activates social preferences for reciprocity — even if the interactions are short-lived (Henrich et al., 2004; Ostrom, 2009; Fehr and Liebbrandt, 2011 and Bowles, 2016). People are conditionally cooperative: they are prepared to serve the interest of another party at the expense of their own interests if this other party also serves them (in-depth module 9). These social preferences for reciprocity, so-called intrinsic or strong reciprocity, can transform the prisoner's dilemma into a coordination game (in-depth module 10).<sup>8</sup>

### *Coordination game: cooperative equilibrium as Nash equilibrium*

The coordination game differs fundamentally from the prisoner's dilemma. The parties no longer have dominant strategies: what is optimal for them depends on what the other players do. Hence, expectations about what other players do become relevant for how a player acts. In particular, people will play cooperatively if they trust that the others will play cooperatively as well. The cooperation game thus has two Nash equilibria depending on expectations. If players trust each other, the Nash equilibrium is cooperative. This cooperative equilibrium Pareto dominates the non-cooperative case, which is the Nash equilibrium if players fail to trust each other.

### *Fragility of trust*

Intrinsic reciprocity can transform a non-cooperative game (such as the prisoner's dilemma) into a coordination game. The positive news is that the cooperative equilibrium becomes a Nash equilibrium. Counterbalancing this positive news, however, is that the cooperative equilibrium can be extremely fragile in the presence of intrinsic reciprocity. In particular, if misunderstandings or mistakes erode mutual trust, players fall easily back into the non-cooperative equilibrium. Also in macroeconomics, conformism as a result of bounded rationality and social preferences makes cooperation fragile (Akerlof and Shiller, 2009). Indeed, in a Keynesian setting, the virus of mistrust is contagious and self-fulfilling (Example 5). Collaboration at both micro and macro levels is thus vulnerable to shocks.

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<sup>8</sup> Repeating the prisoner's dilemma without a fixed termination date also creates a game very similar to the coordination game, if the players follow a tit-for-tat strategy in which both players conform to the strategy of the other player in the preceding round.

### **Example 5: The ECB supports Spain**

Trust in fiat money is an example of the fragility of the cooperative equilibrium in a coordination game. Everyone will play cooperatively by accepting fiduciary money as a medium of exchange as long as they expect others to trust the money as well. Experiences of destructive bank runs and financial crises indicate how fragile that trust can be. A central bank can prevent the downward spiral of a lack of trust in the integrity of money by providing loans to banks affected by a sudden loss of confidence. On the one hand, this policy stabilizes the macro economy and insures banks against a destructive downward spiral of self-fulfilling negative sentiment. On the other hand, it may result in moral hazard: banks do not undertake sufficient action to prevent a loss of confidence.

This tradeoff between stability and discipline is illustrated by what the European Central Bank (ECB) should do if the banks and the government of a member of the Economic and Monetary Union (EMU) loses the confidence of financial markets. In order to then protect the integrity of the euro and safeguard the stability of the EMU, the ECB can lend money to the banks and state concerned. At the same time, this implies that the ECB takes on additional credit risks on its balance sheet. In this way, they in fact expose the taxpayers of the other member states to credit risks. The decision of the ECB whether or not to help a member state is ultimately a question of trust in the ability of the state and of the banks concerned to discipline themselves.

The president of the ECB, Mario Draghi, said on July 26, 2012, "he would do whatever it takes to save the Euro." He in fact stated that he would be prepared to stand by Southern European states if they would lose the confidence of financial markets and would thus no longer be able to borrow any money. This commitment of Draghi restored confidence that Southern European governments and banks would be able to keep their commitments. Apparently, investors had enough faith that Draghi was in fact speaking on behalf of the taxpayers of the Northern European countries, which would bear the credit risk if the ECB would be forced to lend euros to the Southern European banks and states. In other words, investors had enough faith in the trust of the Northern Europeans in the Southern Europeans. They expected other EMU countries to support Draghi's help for "friend" Spain. The trust in mutual cooperation within Europe was intact: citizens in the rest of the EMU were prepared to take on the risk of supporting Spain — and Spain in fact made an effort to continue to meet its obligations.

### *Imbalance in the view of human beings...*

These new insights on human nature have not yet been introduced in economics education in high schools. The current curriculum pays little or no attention to the intrinsic preferences for reciprocity and the importance of trust. Instead of incorporating the conditional cooperative view of human beings, the curriculum continues to present the individualistic, selfish view of human beings as center stage. Small-scale interactions in which people can harm each other are modeled as a prisoner's dilemma. The dominant strategy of rational, self-interested parties is to harm each other. Regardless of the other's behavior, it is optimal to play non-cooperatively (win-lose). The gain from cooperation is thus lost.

### *...results in imbalance and suspicion*

Young people exposed only to this unbalanced view of human nature adopt the conviction that you can't be suspicious enough — even in small cooperative ventures. Indeed, the individualistic view of man can be a good approach for impersonal, large-scale relationships. However, in small communities where people know each other personally, a more relational view of man, in which people attach importance to reciprocity, offers more explanatory power (in-depth module 9).

High-school students are not taught to discern when which human view is relevant and when naivety or suspicion is a danger. The one-sided view of human nature can even become a self-fulfilling prophecy.<sup>9</sup> At the same time, naivety must be avoided. Collaboration will always require courage because trust always involves a certain measure of risk (Bruni, 2012). Human behavior can never be fully predicted. The need to be vulnerable in order for cooperation to get off the ground is the other side of freedom. In fact, the willingness to take risk by becoming vulnerable is an important aspect of love. Indeed, love and faith are closely related.

### *Imbalance in governance*

A broader, more relational view of human nature corrects the tendency to choose fear (based on control and interchangeability) rather than trust as the preferred mode of governance, even in small-scale collaborations (Ostrom, 2009). This imbalance needs to be corrected. In addition to a carrots-and-sticks approach based on financial incentives and hierarchy, activating a "we" identity by the creation of trust through commitment is an important way to govern cooperation (Akerlof and Kranton, 2010; Bowles, 2016 and Sachs, 2015). Especially in knowledge-intensive organizations, trust instead of fear is a more durable way to enhance cooperation (Edmondson, 2019).

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<sup>9</sup> For a literature review of the effects of economics education on trust, trustworthiness and self-interest, see Grant (2013).

## 3. More balance

### 3.1 Three forms of governance

#### *Governance for better balance*

The limits of our rationality, willpower and morality result in a lack of balance between our various goals and interests. Good governance disciplines people to commit to the weakest and most vulnerable interests.<sup>10</sup> The resulting improved balance between these interests leads to better choices and better cooperation, yielding more human flourishing.

#### *Three main forms of governance: hierarchy*

The three main forms of governance are hierarchy, free interchangeability and voluntary commitment. Hierarchy has several manifestations. First, the government can force people to act in certain ways by enforcing laws and regulations. In addition, people can voluntarily accept the authority of a leader, especially if they find it costly to leave the influence sphere of a leader. The role of a good leader is to balance all interests so that interests run parallel. This means that a good leader should especially protect the interests of the weakest members and the goals that other decision-makers largely ignore.

The governance mode of hierarchy suffers from a number of weaknesses. In particular, leaders can abuse their powers or may lack the information to make good decisions. Moreover, hierarchy is typically not very motivating for subordinates.

#### *Free competition*

Free competition implies that you are free to seek other parties with whom to cooperate if the current partners are not serving you well. The threat of interchangeability will encourage your partners to do their utmost to serve you by nurturing their reputation as reliable parties. In this way, competition helps to protect your interests — even if these interests and the resulting duties of your partners to serve these interests cannot fully be codified in private contracts.

The governance mode of competition does not work properly if weak parties cannot judge the quality of the services provided by others, if a society lacks tacit norms about what constitutes ethical behavior, or if information on whether a party treats their partners well is not transparent.

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<sup>10</sup> Governance involves institutions. Institutions commit decision-makers to particular goals and interests. Extractive institutions serve the interests of a small elite at the expense of the rest of the population (Acemoglu and Robinson, 2012). By furthering win-lose rather than win-win, these institutions erode the trust in mutual benefit of those who are not part of the elite. The lack of cooperation harms human flourishing and welfare. Competition between societies can put pressure on extractive institutions to be transformed into inclusive institutions that protect the interests of all citizens. For how evolutionary forces can give rise to human cooperation through competitive forces, see Bowles and Gintis (2013).

### *Voluntary commitment*

Voluntary commitment occupies a middle position between hierarchy and free competition. Voluntary limits on one's own freedom are the direct result of conflicts of interests. Voluntary commitment can originate in enlightened self-interest (in-depth module 11), the desire to conform to social norms or the intrinsic motivation to serve others.

Our identity and self-worth are partly determined by the meaning we experience by serving those with whom we identify. We can distinguish two types of voluntary commitment (CPB Netherlands Bureau for Economic Policy Analysis, 1997). The first is cooperative exchange based on reciprocity within personal relationships (Fehr and Fischbacher, 2003). The second type involves social values and norms within a larger community. The desire to belong to a group, and to derive a personal identity from it, is often an important motivator for conforming to the norms and values of the group (Akerlof and Kranton, 2010).

### *Different forms of governance complement each other*

Each form of governance has its limitations. Therefore, it is often wise to employ the forms of governance side by side: the strength of each then serves to compensate for the weakness of the other. Again, diversity creates added value:  $1+1=3$  and  $-+=$  (Section 1.1).

### *...but imbalance remains*

But there will always be a gap between the ideal and reality. Collaboration and the freedom to choose always yield some kind of gap because of our rational and moral limitations. However, the realization that perfection is unattainable should not prevent us striving for better governance. Indeed, both naïve utopianism and skepticism are to be avoided.

### *Typology of social interactions*

Which particular form of governance deserves greater emphasis depends on the situation. Figure 12 classifies social interactions according to two dimensions: depth and breadth. The *depth* dimension is the degree of complexity in the ways people affect each other's well-being. On the left side are simple interactions and on the right side are complex interactions. The *breadth* dimension refers to the number of people involved. On the top side, few people are involved and on the bottom, many. The four quadrants in figure 12 correspond to the three main forms of governance identified above. Voluntary commitment is broken down into its types: cooperative exchange (for personal relationships) and social norms and values (for larger groups). In-depth module 12 discusses figure 12 in more detail.

Figure 12. Classification of social interactions



Source: own figure

### Increasing complexity

Due to the growing complexity of cooperation, decentralization of information goes hand-in-hand with increased interdependence. Accordingly, extrinsic incentives become less effective in ensuring that interests run parallel so that partners take account of each other's interests. As a result, the third form of governance (of voluntary commitment) is gaining in importance as a way to reconcile freedom with cooperation (Bowles, 2016). In other words, the center of gravity in governance shifts to the right side of figure 12. This shift also has consequences for the trade-off between transactions and relationships (in-depth module 13).

## Example 6: The three forms of governance in practice

### *Families: students and their parents*

The three modes of governance can be seen also in the relationship of teenagers with their parents. As regards hierarchy, these young people are subject to the authority of their parents. Family members also voluntarily commit themselves to each other's interests because of mutual affection and respect. Also free exchangeability plays a role: parents know that if they do not treat their children well, their children will not respect them and will thus spend less time with them now and in the future. Thus, hierarchy, voluntary commitment, and interchangeability contribute to cooperation within a family. Each family has its own mix of forms of governance.

### *School Board*

The three forms of governance can also be distinguished at school. The hierarchy of a school board and a school principal create order. As far as exchangeability is concerned, teachers know that if they mess up, they can be replaced by other teachers; the labor market provides competition. In addition, students can transfer to another school if a school does not perform well; competition between schools thus disciplines the schools to take into account the interests of the students. Finally, there is voluntary commitment: teachers are intrinsically motivated to teach and care for the students. The three main forms of governance thus give students and parents enough confidence that the school is safeguarding their interests.

### *Businesses*

Corporations are a nexus of relationships between stakeholders. Each company chooses its own combination of governance modes, depending in part on the complexity and interconnectedness of the relationships. The following example illustrates how the nature of a business influences the preferred form of governance.

As a hobby that got out of hand, Rudy starts selling cases for smartphones online. If he doesn't deliver good products the customers stay away. This disciplines Rudy to produce high-quality products. Competition of other providers thus generates trust of customers in the products Rudy produces. In this way, market competition helps to generate cooperation and the associated mutual benefits.

Rudy's business is now doing so well that he establishes relationships with foreign representatives who sell his cases in the local markets with which they are familiar. The foreign partners are carefully selected. Moreover, Rudy establishes personal relationships with them, so that these representatives cannot easily be replaced by others. Voluntary commitment in the form of cooperative exchange becomes relevant. With the rise in relationships with foreign representatives who sell the cases in their own local markets, hierarchy is now starting to play a role. Also important, however, is interchangeability: managers within Rudy's organization know that if they do not take the interests of the employees into account, they will take employment at another firm. As Rudy's company grows further, voluntary commitment to group norms and values becomes important. He builds a corporate identity of his firms in order to build mutual commitment and trust between all stakeholders.

### *Government*

Also in the case of the central government of a nation, the three forms of governance play a complementary role. As regards hierarchy, the government compels all citizens to pay taxes. This prevents free-riding behavior where citizens enjoy public services but do not contribute to the financing of public goods. The separation of legislative, executive and judicial powers discourages those in power from enriching themselves at the expense of the citizens. As far as exchangeability is concerned, politicians compete for office in a democracy. This disciplines them to take account of the interests of citizens. As regards voluntary commitment, politicians are often intrinsically motivated to serve their constituents and create a better world.

## 3.2 Economics Education

This section contains some ideas for a better balance in economics education.

### **Example 7: The three forms of governance in education**

The three main modes of governance can also be distinguished in education. As regards hierarchy, the government enforces compulsory schooling, mandates a national curriculum and organizes a central exam. In addition, competition exists: schools are interchangeable to a certain extent. Finally, there is voluntary commitment: the intrinsic desire of students to learn and teachers to help their students to understand the material better.

### **3.2.1 Students**

*Learning together through discovery...*

Choosing and cooperating well, you learn not only with your head but also with your heart and hands. Economics is something you have to do—and in cooperation with others. Therefore, economics education must stimulate students to investigate, discover and understand, together with other students.

*...with more intrinsic motivation*

Intrinsic motivation is becoming an increasingly important form of governance also in education. Because economics is about students' own lives, young people can have more success experiences than only a good grade. Adolescents are in the process of discovering who they are, what they find important and what their talents are. Economics education can help them to better understand themselves and their environment and to better manage their lives.

*...with more customization based on preferences and competencies...*

By using the student's own interests and abilities as a guide, effective education stimulates intrinsic motivation. Digital tools allow for more customization. Students can build portfolios of their work, also for the benefit of potential employers.

*... various educational devices ...*

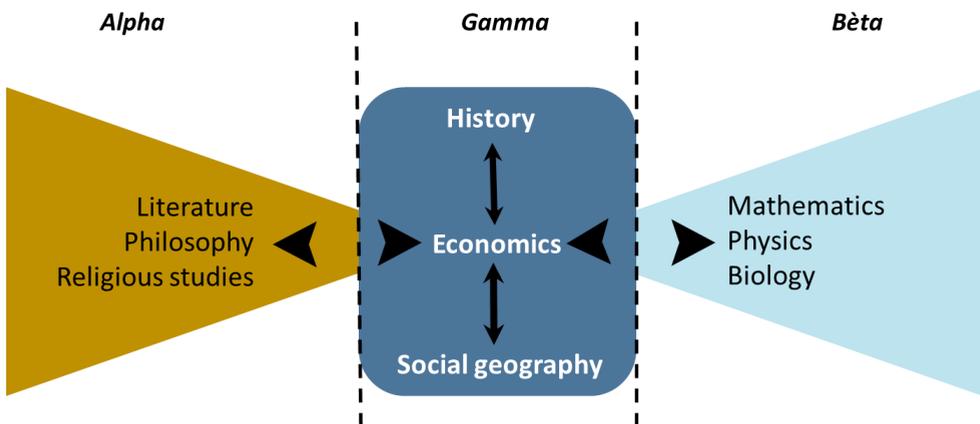
Economics can be taught using a variety of educational devices: allegories, professional language, math and graphs. It is precisely this diversity in devices that increases understanding. A learning environment can be a platform with a common core and, in

addition, elective modules. This way, students can add their own emphases, depending on their preferences or exam profile. The modules can also address particular contexts or connections to other subjects.

*...and cross-curricular learning....*

Economics is thus ideally suited to cross-curricular learning. Students see for the first time the combination of skills they have previously learned in separate subjects. For example, they combine reading and writing, on the one hand, and perform arithmetic calculations, on the other.

*Figure 13. Economics as a connection between Alpha and Beta*



*Source: own figure*

The social sciences (gamma) connect the humanities (alpha) and the exact sciences (beta) (Figure 13 and in-depth module 14). Furthermore, the students learn concepts that allow them to relate different contexts to each other (in-depth module 2). This teaches students to start from a context they observe rather than fragmented theoretical disciplines.

*...with a less overloaded curriculum ...*

Inquiry-based learning and more attention to creative skills requires further steps towards a less overloaded curriculum that is focused on understanding (rather than reproduction)<sup>12</sup> and on applying insights and skills in new contexts. Gaining insight in many different contexts with the aid of just a limited number of principles<sup>13</sup> increases the intrinsic motivation of students to learn (see in-depth module 15).

*... and consequences for testing*

Other ways of testing are also called for. In economic questions, as in other subjects such as philosophy, history or literature, there is often no single right answer. This requires a balance between objective measurability, on the one hand, and testing skills that are difficult to verify objectively (such as analysis, evaluation and creation), on the other. Future education will pay attention to not only measurable but also "noticeable" learning outcomes (Platform Onderwijs2032).

### **3.2.2 Teachers**

*More freedom for teachers .....*

Economics education that properly prepares students for a complex society requires a different balance between hierarchy and voluntary commitment. More freedom for schools and teachers to shape the curriculum themselves is called for. Among other things, the government would do well to reduce somewhat the dominant role given to the national central exam (Banning and Canoy, 2016).

*..... calls for further professionalization...*

Teachers can develop further as professionals. In doing so, the development of a shared professional identity is essential. Cross-curricular learning, for example, requires an entrepreneurial attitude: working together with colleagues from other disciplines. Furthermore, didactic innovation is called for — with more inquiry-based learning and collaboration.

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<sup>12</sup> See Teulings (2016) for suggestions on how to restructure the final exam program for macroeconomics with less focus on accounting (national accounts) and more focus on understanding.

<sup>13</sup> The Platform Onderwijs 2032 (2016) also advocates a deep understanding of a limited number of concepts: 'not a little of everything, but more of less.'

*...and articulation of educational ideals*

Which preferences young people activate and develop depends on their social environment.<sup>14</sup> This is currently all the more true, with the increasing importance of citizenship and non-cognitive skills (Platform Onderwijs2032, 2016). Strict neutrality does not exist in education: we inevitably influence the preferences and values of young people. This gives rise to ethical questions (in-depth module 9). Hence, teachers should learn to be conscious and transparent about their own education ideals. But the teacher's responsibility for the pupil remains limited. After all, every young person is also responsible for his or her own choices. Education is inevitably a risk venture (Biesta, 2015).

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<sup>14</sup> Libertarian paternalism recognizes this by consciously considering choice architectures (via defaults and nudges) based on explicit targets for the desired values and behaviors of others (Thaler and Sunstein, 2009).

## 4. Conclusions

### *Governing and understanding social relationships: more with less*

Economics as *oikonomía* is not limited to the realm of monetary and financial issues but concerns the whole of human existence. It deals with governing (*nómos*) social relationships (*oĩkos*) so that more well-being is being created. Economics is like magic: doing more with less. The same is true of the method of economics: illuminating a rich diversity of contexts with only a limited number of concepts.

### *Broader view of human beings in secondary education*

A broad conception of economics that does justice to the collaborative relationships in which schoolchildren participate on a daily basis requires a less rational and more relational view of human nature than the model of the rational, selfish individual that is still at the core of economics education in secondary education today. Recent developments in the academic discipline of economics support a richer view of human nature, with a greater role for trust, hope and love — however fragile these aspects often are.

People are relational beings. They need each other to know what is wise and good. They also value justice and want to contribute to the welfare of those with whom they identify.

### *More coherence*

Teaching economics in high schools must remain manageable when richer models of human nature are taught than only that of the *homo economicus*. That is why we base this new method of economics education on a single narrative about choosing and cooperating wisely: transforming poverty (that is the result of conflict over limited resources) into well-being for all by creating parallel interests in transcending limitations. This narrative consists of three subplots: in balance, out of balance, and more balance. Each part has an associated principle: the balance of win-win (part 1), the limitations of both rationality and morality unsettling this balance (part 2) and the three main modes of governance aimed at increasing the weights of the weak goals and interests: hierarchy, free competition due to free interchangeability, and voluntary commitment (part 3).

### *Economics a dreary science?*

As the science of scarcity, economics is often seen as a dismal science. However, there is another, more hopeful perspective on economics: exploiting the potential to create more well-being for more people through cooperation. This requires balancing various interests so that people are serving instead of harming each other.

*Rational and moral constraints cause imbalance and loss of well-being*

But let's not be naive. Bounded rationality often leads to unbalanced choices that harm rather than benefit welfare. Moreover, due to bounded morality, we tend to weigh our own interests more heavily than those of others. In the absence of institutional safeguards that balance enlightened self-interest with the interests of others, this imbalance can harm the trust and thus motivation of parties whose interests are insufficiently safeguarded. Fear of greed harms cooperation and thus prosperity.

*More intrinsic motivation required*

Three forms of governance create more balance between the various interests by helping decision-makers to attach more weight to undervalued goals and interests. In this regard, we can distinguish both hard and soft institutions. The hard institutions of hierarchy and competition have always been essential. With the increasing complexity of society, also voluntary commitment to personal relationships and ethics gains in importance. In the tradition of Aristotle and Adam Smith, economics and ethics are two sides of the same coin of collaboration and well-being.

*Education develops reason and morality*

With our ability to reason and empathize with others, we can relate our choices to the consequences for others and ourselves. Economics education in secondary school aims to enhance these uniquely human abilities. The goal is that students can better understand and manage both their own lives and the collaborative partnerships in which they participate. The world is facing great challenges. More sustainable well-being for more people requires finding new ways of balancing our interests. These social innovations determine the future of our civilization and our planet. This is what makes economics such a challenging and timely subject.

# 5. Acknowledgements

Finally, I would like to thank a number of people and institutions.

#### *Frits Goldschmeding*

In the first place, my thanks to the Goldschmeding Foundation for Humanity, Work and Economy. I am very honored with this chair — especially because of the person it honors, Frits Goldschmeding. Goldschmeding and I have something in common: the conviction that 'Agapè' love lies at the root of human flourishing and that knowing, serving and trusting concretize Agapè (Rupert et al., 2016).

#### *Tilburg University*

Thanks are also due to the Executive Board of Tilburg University and the management team of Tilburg School of Economics and Management (TiSEM), and in particular Lex Meijdam, for all their support. I am happy to work at this Catholic institution in the tradition of Cobbenhagen. As a child growing up in a Protestant family, I met my Catholic peers once a year — on the soccer field during the Easter tournament. There, things were usually not gentle. But here in Tilburg, 500 years after the Reformation, swords have been transformed into plowshares.

#### *The education team*

Renewing education is not something you do alone. Many of the ideas of this afternoon were co-founded by Marcel Canoy, Ferry Haan and Ton van Haperen. Without the tireless Harry Commandeur and Frank van der Duyn Schouten, this project would never have succeeded. Here too, our differences together with our talents and limitations result in the miracle of  $1+1=3$ .

#### *Together for others*

What we want to achieve is challenging. But, the beauty is that we can do it only together for the sake of the young generations. Doing something difficult together for others is the most beautiful thing there is. Let me illustrate that with Alpe d'HuZes — an initiative to fund the fight against cancer in which participants ride up the steep climb to the French ski village of Alpe d'Huez six times in one day. And, not in a car but on a bicycle. Rarely have I seen so much emotion. Why? In the first place, climbing Alpe d'Huez takes a lot of effort.

I am still tired from it. In the second place, you are part of a team: you do it together. Third, you do it for others. Our education project also features these three characteristics: it is difficult, we do it together and it is of social importance.

### *Netspar as a pension knowledge network*

I would also like to thank Netspar for their flexibility in granting me this new challenge. Pensions and education — they are both part of mutual collaboration between generations. I am happy to continue making a contribution in both areas.

### *Dear Wilma,*

You are my constant support. You as a doer, keep the absent-minded Professor Lans in baLans. We have become a strong team over the years. We trust each other blindly.

### *The BaLance....*

In 2008, Frits Goldschmeding facilitated the publication of "Bovenberg's BaLance" (de Reus, 2009). After this oration, I only retroactively understand what a great title that was. I used to hate my first name sometimes. People always turned it into something else: Lars, Hans and Zans. And, in my second home country — the US — I'm mostly Lance. As a cycling fan, I used to love that—although for a few years now, it has been a little less fun.

### *.. of Bovenberg*

And the last name Bovenberg was sometimes problematic for me. My father taught me to be modest: he'd say, "a Bovenberg doesn't like the spotlight — he's a good second-in-command". I felt that clashed with our surname, which in English can be translated 'Mountaintop'. But there, too, I have gained insight: just like every other human person, I can look further than the end of my nose (in-depth module 8). I have been given a rational mind and moral capacities. That is why every human stands on top of a mountain and can look beyond the here-and-now and their own interests only. Seen in this greater context, I've grown to appreciate my own name more! .

### *Ancestry*

That brings me to my parents — because they are responsible for my name. They formed me. I have already talked about my father: he was the man of balance — of gray instead of black or white. He passed that value on to me.

And then there is my mother. She could have had 12 children. But, she had only

one! Like her mother, she was a doer — a real go-getter. When she was 96, my grandmother was on her deathbed, with a body failing in health. There she confided to me, "I can still do a lot! I can still pray for you." This was a formative moment in my life. Another was when my mother had to learn to receive after a lifetime of giving. She realized that her mental faculties were deteriorating when she admitted to me, "I don't know anymore. You decide for me." She did not realize how much she was giving me by wanting to receive from me. The circle of reciprocity was complete.

### *Christ*

The most important legacy I have received in part from my parents is my Christian upbringing. Christ is my fixed point: His Spirit of wisdom and mercy illuminates my limited mind and limited moral sense. Christ is my primary identity. But to reassure my fellow professionals, I am also a scientist. In that capacity, I try to be as objective and independent as possible. But let's not be naive. Any choice of model or activity is based on subjective considerations. One's own vision — including mine — is inevitably limited. It is precisely to avoid possible conflicts of interest that transparency about values is important.

### *Freedom*

This is certainly true in education because we inevitably influence the values of young people. I stand in the formative ideals of Greek classical antiquity and the Judeo-Christian tradition from which humanism has sprung. The dignity of every human being is the foundation: everyone is both limited and valuable. Part of that dignity is freedom. That's why I don't want to impose my values on schools or students. Education is not something that any of us can fully control; it remains a wonderful risk (Biesta, 2015). Every school and pupil is responsible for themselves and thus must be granted the capacity and the freedom to choose. Freedom of conscience is absolutely essential.. I believe in competition in the marketplace for ideas.

### *All*

Thank you also to all of you. I am much honored that you have taken the trouble to listen to me here today — because listening is hard work too. I hope you can do something with the balance of win-win and put this balance into practice in a concrete way.

Last but not least, I would like to thank my beloved family.

Dear Arie and Gracia,

*At my first inauguration in 1990, Arie was in the baby carriage, at the second he was still single and now he is married. From hierarchy to freedom to voluntary commitment. That is the healthy growth process from child to adult. It is almost too good to be true that such a self-confident and honorable young man is my son. When I deliver my next public speech — I guess it will be my farewell speech — I expect you to have further put the  $1+1=3$  principle into practice. It may also be  $1+1=4$ .*

Dear Danielle,

*When I see you I know that the future is safe with young people like you. You give me hope. In you shines a beautiful light.*

Dear Jeanne,

*Like Willem Alexander, I only became a man when you became my princess. And, you only become more beautiful every day.*

I have said.

# Appendix

## In-depth module 1: Economics as the science of scarcity as reciprocity

### *Scarcity as an opportunity: less is more*

Scarcity is a word that has a negative connotation in everyday language. It indicates that we lack something or that something is rare and in short supply. But for economists, scarcity means reciprocity: you can only get something good if you give up something else that is good.

Scarcity has also positive implications. First, scarcity is the other side of value. Everyone is of value because everyone is unique — and thus in limited supply.

Secondly, scarcity encourages people to cooperate. The *Homo economicus* is a *Homo cooperans* (de Moor, 2013). Adam Smith once put it this way, "In almost every other race of animals each individual, when it is grown up to maturity, is entirely independent, and in its natural state has occasion for the assistance of no other living creature. However, man has almost constant occasion for the help of his brethren."<sup>15</sup> Thirdly, scarcity makes love possible and it is love that gives our lives meaning. Indeed, as a result of scarcity, we can mean something to another person — for example, through creativity, entrepreneurship or caring.

### *Economy as oikonomia*

The word economy comes from the Greek *oikonomía* and means the rule (*nómos*) of the household (*oikos*). Indeed, economics is about managing households. Through conscious choice and good cooperation, more well-being can be generated within the household. Household has a broad meaning as a collaborative venture. A household can be a family but also a school, company, country or even the world as a whole.

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<sup>15</sup> De Waal (2009) and Bowles and Gintis (2013) show how natural selection has produced social and cooperative animals. Humans have the most highly developed brain with the intellectual and moral capacity to empathize and sympathize with others. The development of the complex brain requires so much time and energy that children are dependent on their parents and other adults for a long time. Hence the great importance of parenting and education.

## In-depth module 2: The economist's perspective

### *The methodology of economics: assumptions, implications, empirics*

Economics features a powerful methodology: (1) making explicit assumptions about human behavior; (2) modeling the causal relationships between these assumptions and its implications; (3) testing these implications against empirical data.

Implications that conflict with alternative assumptions are especially important. For this is how the data identify the hypothesized theory relative to these alternative assumptions.

### *Transfer: simple concepts connect contexts*

Economists share a methodology with simplicity and generality at its core (Gautier, 2016). Economists attempt to derive implications with simple assumptions and concepts that apply to a multitude of contexts. The ambition of the economics exam program is transfer: with a few universal concepts, students should be able to better understand and connect a richness of contexts. Becker (1993) articulated this broad view of economics, but goes back to Keynes and Marshall (see also van Damme, 2016).

*Economics is not a body of concrete truth, but an engine for the discovery of concrete truth* (Marshall, 1885; reprint 2005, p. 129).

*Economics is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions* (J. M. Keynes, 1922, p. v).

Someone like Steven Levitt illustrates the breadth of contexts in which the economic method can be applied in popular books with titles such as *Freakonomics* (Dubner and Levitt 2009), *Superfreakonomics* (Dubner and Levitt, 2009) and *Thinking like a freak* (Dubner and Levitt, 2014).

### *Less is more: allegories, maps, and language*

Teulings (2016) explains that economics is basically a collection of allegories that help people, with naturally limited cognitive abilities, make sense of the essence of social phenomena and their relationships.

Economists use models not because they are so smart but because without the abstraction of a model they cannot see the forest for the trees. In this way, they consciously deal with their own limited brain. A second metaphor to explain what economists do is that they make maps. These maps abstract from all kinds of things

to reveal the essence of a particular phenomenon (Rodrik, 2015). As a third metaphor, the connecting concepts can be viewed as a language that economists speak. Language, after all, is an abstraction to organize complex reality and make connections.

#### *The art of economics: model selection*

When to use which model is the most difficult art in economics (Rodrik, 2015). The fact that economics is partly based on subjective intuition does not mean that it is non-scientific. The desire to be objective can impoverish economics if this desire is not balanced by the realization that subjectivity is indispensable. Intellect and intuition are both needed. John Maynard Keynes once wrote: "Economics is the science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world."

#### *Models are not nothing but not everything, either*

In applying the economic method — applying simple, general concepts in a rich diversity of contexts — two dangers lurk. The first danger is that you leave out too few things, resulting in too little simplicity and insight. The second danger is that you take your model too seriously as a simplified representation of reality. A statement that is sometimes attributed to Einstein is: "Everything should be made as simple as possible, but not simpler." Finding the right balance characterizes a good economist. He or she realizes that every good model is useful but has its limitations.

## In-depth module 3. Governing as an economist

### *Choosing wisely in three steps...*

Economists think in a goal-oriented way and derive the desired action from the desired outcomes. Choosing wisely is based on three steps. The first step is to define and organize goals: what do I want and consider important? The second step is to identify the resources you have and the way you can transform them in other goods: what can I do? The third step is to determine the choice that brings you closest to your goals: what shall I do? This third step requires establishing relationships between possible choices, on the one hand, and outcomes in terms of the objectives, on the other.<sup>16</sup>

Economics is like driving a car. First, you pinpoint where you want to go (your objective). This makes it possible for you examine the relationship between your decision to turn right or not and the travel time to your goal. Finally, you turn right because it appears to be the shortest route to your goal.

### *...with alternative interpretation*

The three steps can also be interpreted in terms of (1) demand; (2) supply; and (3) equilibrium. Demand, supply and equilibrium are associated with (1) willingness to pay as the benefits; (2) required compensation as the costs; and (3) the difference between benefits and costs as surplus. This difference is maximized by balancing marginal benefits and marginal costs.

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<sup>16</sup> These relationships are often surrounded by uncertainty. Economists typically employ models to make these relationships explicit. See in-depth module 2.

## In-depth module 4: Balance and the Humanities

Many philosophies of life endorse the importance of balance between a multitude of goals. Consider, for example, Taoism: Tao literally means the way. The Doctrine of the Middle is part of this Confucian thought. Buddha teaches the importance of finding the right measure and balance to avoid extremes. The Quran emphasizes the importance of mizan or balance (Young, 2016). Christianity speaks of the narrow way.

Also humanism, which evolved in part from Greek thought, emphasizes balance as the way to a good life. According to Aristotle, life satisfaction requires that multiple goals come into balance with each other. He opposes a narrow interpretation of the concept of prosperity that seeks only material consumption. Aristotle believed in balance, moderation and variety. Later, this idea was formalized in economics as decreasing marginal utility. Human flourishing involves multiple, pluralistic dimensions that are balanced.

*Phronèsis* — practical wisdom that seeks moderation and balance — is, according to Aristotle, the virtue that underlies all other virtues, including the other three cardinal virtues: justice, courage and self-control. Justice is making sure that no one gets too much and no one gets too little: everyone gets his own. Courage is the middle ground between cowardice and recklessness: both reckless naiveté and unhealthy distrust and excessive control must be avoided. The wisdom of *Phronèsis*, according to Aristotle, ensures a good balance.

Whether the goals that lead to a good life are objective or subjective is the subject of an old debate. Many philosophies of life argue that the goals that lead to human happiness are objectively given by human nature and can be discovered in part through empirical research. Other thinkers, in contrast, view well-being and happiness as purely subjective concepts. Also within the academic discipline proponents of a purely subjective interpretation of well-being debate with scholars who prefer a more objective interpretation (Sen, 2001).

## In-depth module 5: Win-win in complex societies

The power of reciprocity can be illustrated by an example used by British scientist and author Matt Ridley in his acclaimed TED talk entitled *When ideas have sex*.<sup>17</sup> This example illustrates the power of collaboration and trust in creating prosperous societies. Prosperity and wealth result from a high degree of interconnectedness. Mutual service in such a complex society is based on mutual trust in the reciprocity of win-win. Giving and receiving are in balance.

Both a fist axe made in the Stone Age, on the one hand, and the mouse of my home computer, on the other, are designed to fit in a hand. That is where the similarity ends and the differences begin. The first difference concerns the complexity of the object: the first axe consists of only one material. The computer mouse, in contrast, is composed of hundreds of different substances.

A second difference is by whom and for whom the object was made. The first axe was made by one person for that person himself. In other words, the first axe is based on autarky. My computer mouse, however, was made for me by thousands of people. Think, for example, of the people who picked the coffee beans for the coffee for the people who extracted the oil for the plastic material of my mouse and the people responsible for the design.

A third difference is in the knowledge of the production process and the extent to which people with limited knowledge rely on the knowledge and benevolence of others. The maker and user of the fist axe knows how to make a fist axe. However, no one knows how to manufacture a complete computer mouse and all its parts. The makers of the computer mouse rely on each other's knowledge.

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<sup>17</sup> [http://www.ted.com/talks/lang/en/matt\\_ridley\\_when\\_ideas\\_have\\_sex.html](http://www.ted.com/talks/lang/en/matt_ridley_when_ideas_have_sex.html)

## In-depth module 6: Win-win at the macro level

The state monopoly on force is of great importance in protecting property rights and preventing freeriding. However, there is also another side to the power of the state: a small elite can abuse this power apparatus to rob citizens. The state can thus function as a kind of mafia. In contrast to inclusive government, exclusive government does not represent the interests of all citizens. This results in a lack of trust in mutual benefit. Self-sufficiency and poverty are the result.

### *Democracy*

Democracy disciplines and legitimizes the government's monopoly on coercion. In addition, all kinds of checks and balances such as the rule of law ("everyone is treated equally") and the separation of legislative, executive and judiciary limit the ability of those in power to use their power to serve their own interests at the expense of the interests of citizens.

### *.. shared identity,...*

Trusting the government to represent the interests of all also requires a shared identity as a people — a "we" feeling cultivated by symbols such as the flag, the national anthem, and country teams at the Olympics. Countries in which tribes or groups do not feel connected therefore struggle to develop legitimate government. Reconciling freedom and cooperation requires a shared identity.<sup>18</sup>

### *...and a balanced income distribution with equal opportunities*

A third necessary condition is that the distribution of the fruits of cooperation is legitimate. This involves a balanced income distribution in which all parties can participate in and benefit from the economy as a cooperative enterprise. Adam Smith wrote, "No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable." This is why Smith attached great importance to good basic education with equal opportunities for all.

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<sup>18</sup> This connection between freedom, cooperation and identity is reminiscent of the triad of freedom, equality and fraternity. This triad is also closely related to Dani Rodrik's well-known trilemma between democracy ("freedom"), economic integration ("cooperation"), and the nation-state (shared "identity"). The trilemma of freedom, cooperation and identity also resembles the trilemma between voluntary participation ('freedom'), efficiency ('cooperation') and morality ('identity') identified by Bowles (2016).

### *Win-win and prosperity*

Citizens are protected from theft by inclusive institutions. They then can be confident that the fruits of their efforts will not be stolen— either by private individuals or by the state. Win-win replaces win-lose. Citizens are given incentives to serve rather than to steal from each other. Conflicts over the distribution of the state's surplus profits disappear (Acemoglu and Robinson, 2012).

## **In-depth module 7: Poverty in rich countries**

Poverty also exists in rich countries like the Netherlands. This is often due to bad luck. You lose your job or become ill. The biggest risk people face is the location of their cradle. If you are born into a broken family in which your parents invest little time and energy in you, you do not learn to take good care of yourself and regulate your emotions. As a direct consequence, your physical and mental health probably suffers and your results at school are disappointing. When you look for work, employers do not want to offer you a job. You become skeptical and start blaming other people for your problems. A vicious circle of poverty with a short and brutal life looms.

These social deficits are often passed on from generation to generation: low self-discipline, poor educational outcomes, fragile health and poverty (SCP, 2014). The ultimate cause of these problems is that people do not know love and thus are not safely connected to others: they lack the non-cognitive skills that help them manage themselves and their relationships (Heckman, 2000).

Loving attention is the main medicine against this poverty of self-regulating abilities: learning to value yourself and others and learning to trust and appreciate others so that you can start to think in terms of the positive reciprocity of win-win instead of the negative reciprocity of lose-lose (Kosse et al., 2016). This points to the importance of investing at an early age in non-cognitive skills such as patience, courage, perseverance, self-control and empathy. Only by providing equal opportunities for basic self-governing skills (such as moderation and acting in terms of mutual interest), can our society ensure that all of its members benefit from civilization. Only then, does the win-win principle reign not only on the micro level of each citizen but also on the macro level of our complex society as a whole (in-depth module 6).

## **In-depth module 8: Economics and ethics**

### *The balance of win-win and reflection*

The balance of win-win requires the ability to reflect. People can see beyond the here and now. They can climb a mountain, as it were, and from the top consider and experience the consequences of their current decisions for themselves in the future and for others. You can consider the relationship between your decision and the consequences in two dimensions: time (your future self) and other people (other selves than yourself).

### *choosing consciously...*

The first dimension involves choosing wisely and consciously (with a sense of purpose): not just making decisions based on your current emotions but acting in a goal-oriented way by also taking into account the effect of your current actions on your future self. See in-depth module 4 for reasoning back from goals to desired current actions.

### *.... good cooperation*

The second dimension concerns good cooperation by putting oneself in someone else's shoes and feeling what this person is feeling. Adam Smith called the latter moral sentiments. The most famous quote from Adam Smith is: "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages." The market is the platform on which shared interests come about as people emphasize with each other and put themselves in each other's shoes. Many think that Adam Smith sanctioned selfishness and promoted unbridled market forces, but this is a mistake (Buijs, 2014).

### *Combination of reason and morality as the ability to establish relationships*

The combination of reason and morality is what makes the human species tick. With our heads and our hearts, we can make connections between our choices and the consequences for future selves and other selves.

### *Win-win ties economics and ethics together*

The win-win principle connects economics closely to ethics. Economists are keen to design society in such a way that people should only be able to serve their own

interests if they simultaneously serve the interests of others and do not hurt anybody. Indeed, striving for win-win — treating the other as you would want to be treated yourself— is the golden rule of ethics. Kant's categorical imperative is based on that win-win principle: you should act in the way you would like everyone else to act. Every human being is both an end and a means at the same time: you are not nothing but also not everything. Both your interest and those of others count.

#### *Merchant and Pastor by Adam Smith ...*

Adam Smith understood well how the win-win principle intimately connects economics and ethics (in-depth module 6). Smith's most famous books "The Wealth of Nations" and "The Moral Sentiments:" established a close connection between economics and ethics. Also, listen to this quote from Smith about the Netherlands as a country of both merchants and pastors: "Of all the nations in Europe, the Dutch, the most commercial, are the most faithful to their word."

#### *... and Aristotle*

Aristotle (Bowles, 2016) also noted the connection between merchant and pastor. He emphasized the importance of both creating inclusive hard institutions (such as the rule of law) and developing soft institutions (such as culture with virtuous people) (Sachs, 2015). Inclusive hard institutions ensure that interests run parallel. Virtuous people voluntarily commit to the interests of others and thus do not ignore these interests if they conflict with their own interest. Both the hard institutions as law and competition and the soft institutions as cooperative exchange and social ethics aim at creating welfare through human cooperation.

## **In-depth module 9: A less rational and more relational view of human beings in science.**

Recent developments in economics support a less rational and more relational view of human nature.

*More balance in the view of human beings: less rationality...*

Behavioral economics indicates that people do not always act rationally and make systematic mistakes. This branch of economics takes the limitations of the human brain seriously. The scarcity of cognitive capacities implies that people often act intuitively instead of consciously weighing alternatives (Kahneman, 2011).<sup>19</sup>

Indeed, when deciding whether or not to trust potential cooperation partners, we often rely on intuitive considerations. In doing so, we may experience internal conflicts — for example, between our reason, emotions and will.

*...and more relationality in forming values...*

When we have difficulty choosing and do not know what the best choice is, we often rely on trust in others. We feature "social preferences" in the sense that our preferences are activated and developed by our social environment. But how can we trust that others have our best interests in mind when we trust them?

*...and appreciation of the importance of the community with which one identifies*

Here, social preferences play a role. People value more than just the material fruits of their relationships but also enjoy the meaning that these relationships provide: people derive self-worth and identity from the group to which they belong (Akerlof and Kranton, 2010). They want to be meaningful by being of service to a larger whole with which they identify (Ariely, 2012). As a direct consequence, they are often intrinsically motivated to exert themselves for others — even if this generates only psychological rather than material rewards. They intrinsically value the quality of relationships and the motivations and trust of others (Fehr and Firschbacher, 2002). Thus, they value fairness and reciprocity for their own sake.

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<sup>19</sup> Kahneman (2011) models the brain as consisting of two systems. In this dual model of the brain, the first system (system 1) works quickly and associatively based on intuitions. The second system (system 2) takes more mental effort and involves the conscious, more rational, decisions. System 2 provides self-control. It can suppress the first system when the two systems are in conflict. System 1 is much more influential than we often think but this system can be built and developed through repeated behavior. Kahneman's model is close to the human view painted by Adam Smith in "The Moral Sentiments" (Ashraf, Camerer and Loewenstein, 2005). In this book, Smith describes an internal conflict between passions on the one hand and the independent observer ("impartial spectator") on the other. This model is also close to that of Aristotle. He saw the mind (system 2) as the human capacity to control passions and to develop virtues.

*The downsides of a more relational view of humanity*

A more relational view of man does not imply a naive belief in the goodness of human beings. Social preferences in the first sense — personal preferences are formed by their social environment — result in potential conflicts of interest. Indeed, people may try to affect the preferences of others in order to benefit themselves at the expense of these others (Akerlof and Shiller, 2015). As regards social preferences in the second sense — serving the interests of others — the desire to belong to a group may limit empathy for those outside the group. Moreover, as part of their social preferences, people value not only positive reciprocity but also negative reciprocity; they are willing to incur costs to harm others who have treated them poorly. At the same time, people do not always correctly assess the intentions of others (Ariely, 2012). The combination of misunderstandings due to bounded rationality and the social preference of reciprocity can result in a destructive cycle of contagion — a vicious cycle of fear, distrust and retribution. The intrinsic preference for conformism (copying the other's behavior) makes relationships fragile.

## In-depth module 10: Three views of human nature and game theory

Three prototype views on human nature can be distinguished: *Eros* (selfishness), *Philia* (reciprocity, man as conditional homo cooperans) and *Agapè* (unconditional love). These three models of human nature can be modeled as different parameters in the simultaneous game in figure 14. Here, it holds that  $c > 0$ : if both players play cooperatively, they enjoy higher welfare than if they both play non-cooperatively. Furthermore,  $2c > a + h > 0$  holds: if a single party cooperates, joint welfare is lower than if other parties cooperate but higher than if no party does so.

Figure 14. Symmetric game

	Cooperative	Non-Cooperative
Cooperative	$c, c$	$a, h$
Non-Cooperative	$h, a$	$0, 0$

Source: own figure

In the prisoner's dilemma, the so-called 'greed' parameter  $h$  exceeds the cooperation parameter  $c$  so that  $h > c$ ; if the other party plays cooperatively, the decision-maker has an incentive to take advantage of this and play non-cooperatively. The 'fear' parameter  $a$  is negative in the prisoner's dilemma (i.e.  $a < 0$ ). If the other party plays non-cooperatively, the decision-maker does not want to reward this by playing cooperatively. The pay-offs in the prisoner's dilemma are the own material results of the stakeholders. Indeed, rational, selfish players value only their own material prosperity. This self-love and indifference to others can be seen as *Eros* love (Bruni, 2008). In the absence of hard institutions, these *Eros* players play non-cooperative win-lose strategies. With both players having a dominant non-cooperative strategy in the prisoner's dilemma, the dominant-strategy equilibrium is the non-cooperative equilibrium. Both players are worse off compared to the cooperative equilibrium: the gain from robbing the other

player (i.e.  $h-c$  or  $-a$ ) is smaller than the loss from being robbed ( $c-a$  or  $h$ ), i.e.  $h-c < c-a$  or  $-a < h$ .

With sufficiently strong social preferences for reciprocity,  $c > h$  holds. With intrinsic reciprocity, the pay-off  $c$  consists not only of material benefits but also of the psychological benefit of rewarding the partner who plays cooperatively. With intrinsic (negative) reciprocity, the pay-off  $a$  now includes the psychological pain of rewarding the party who plays non-cooperatively). The conditional love associated with intrinsic reciprocity can be viewed as *Philia* love. These preferences transform the prisoner's dilemma into a coordination game with two Nash equilibria.

Sufficiently strong unconditional love (*Agapè* love) where the players internalize each other's welfare implies  $c > h$  and  $a > 0$ . These *Agapè* preferences transform the prisoner's dilemma into a so-called "invisible hand" game (Bowles, 2004). The cooperative equilibrium is now the dominant-strategy equilibrium. The cooperative equilibrium is therefore more robust than in the coordination game.

Hard institutions that internalize externalities can be modeled in Figure 15 as  $c > h$  and  $a > 0$ . These external incentives ensure that individual interests run parallel with collective interests. Hence, the cooperative equilibrium becomes the dominant strategy equilibrium, just as in the case of *Agapè* love. Hard institutions can enforce cooperative behavior only if this behavior can be codified in laws or contracts and if third parties (such as legal courts) can observe the difference between cooperative and non-cooperative behavior. If this information is not verifiable by the courts, reputation combined with tit-for-tat behavior can ensure a cooperative Nash equilibrium if the game has no fixed end date. The repeated prisoner dilemma then resembles the coordination game. Hence, if the cooperative equilibrium relies on the reputation mechanism, it is more fragile than in case the courts can enforce complete legal contracts. If cooperative behavior is not easily observable even by the partners with which one cooperates, only intrinsic incentives remain as a form of governance to achieve the cooperative equilibrium.

Different social contexts can activate different types of love within a single person. In large-scale, anonymous contexts, the *Eros* aspect of human nature tend to be dominant. In small-scale contexts, the conditional *Philia* love is likely to be more important. The unconditional *Agapè* love is especially relevant when raising young children.

## **In-depth module 11: Restricting freedom in enlightened self-interest**

Governance limits individual freedom of action. Restricting one's personal freedom can be in one's own best interest. At first sight, this may seem paradoxical. The reason why commitment can be beneficial is that it eliminates conflicts of interest. These conflicts can be internal conflicts between reason and emotions, but also conflicts between different parties. In the latter case, commitment can have strategic effects. In particular, restricting your room for maneuvering can foster the trust of your potential cooperation partners that you have their interests at heart, so that they take the risk of cooperating with you. Through this strategic effect on the behavior of others, voluntarily restricting your freedom serves your enlightened self-interest.<sup>20</sup>

In the same way, it is often in your enlightened self-interest to bind yourself to durable relationships even though they limit your room for maneuvering. The reason is again the strategic effect on the trust and the behavior of cooperation partners.

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<sup>20</sup> This is an example of how it can help you consciously think through the impact of your choices (in-depth module 3). Game theory is a well-known way to investigate the strategic effects of your choices.

## In-depth module 12: classification of social interactions

### *Two dimensions: complexity and interconnectedness*

Figure 12 classifies social interactions based on two dimensions: depth and breadth.

### *Free interchangeability.*

The upper left quadrant comprises the simple interactions: few people are involved and both externalities and asymmetric information about the quality of the good is lacking. Here, free interchangeability is the appropriate form of governance.

Two conditions are necessary for good cooperation. First, the parties must take each other's interests into account. Second, they must agree on how to share the gains of cooperation.<sup>21</sup> The first condition is met in case of simple interactions because all the effects of individual choices on others are easily observed, contracted and priced. Moreover, those who do not take the interests of their transaction partners into account are easily interchangeable. This knowledge disciplines both partners to consider these interests — even if these interests cannot be protected in legal contracts. The second condition for good cooperation is also met, because of interchangeability. The parties involved have no influence over the market prices (and thus the distribution of the gains from cooperation). If you demand a price that is less attractive for your partners, these partners will replace you by your competitors.

Free interchangeability is an important protection against win-lose behavior by powerful parties. Over the past three decades, more and more countries have opened their markets to international competition. This reduces the opportunities for unscrupulous groups to enrich themselves at the expense of other citizens. All of this has contributed to a decline in global poverty (figure 10).

### *Cooperative exchange*

In the upper right quadrant, social interactions between a limited number of partners are so complex that not all interactions between the parties involved can easily be observed by third parties. These interactions thus, cannot be contracted and priced. Moreover, the reputation mechanism does not work to discipline the partners because third parties cannot observe what happens.

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<sup>21</sup> These two conditions are related to the two foundations underpinning the added value of collaboration: difference and fair sharing (Section 1.1).

With complex interactions, good cooperation requires long-term, personal relationships in which people get to know, trust and appreciate each other. Interactions are not based on "impersonal" money, but on personal trust.

### *Hierarchy*

The lower left quadrant involves simple transactions between large numbers of anonymous people. This cooperation can be governed through hierarchy. An example of this is the government, which has the monopoly on force and can thus prevent free-rider behavior. In order to prevent abuse of its power, the government cannot use non-verifiable information. Hence, transactions have to be simple so that third parties can easily verify them.

### *Social norms and values*

The quadrant in the lower right contains the most challenging governance issues: complex cooperation among a large number of people. One way to govern these deep and broad interactions is to develop a common 'we' identity within a group. Persons voluntarily commit themselves to the social norms and values of this group if they feel connected to it and thus want to be a part of it (Akerlof and Kranton, 2010).

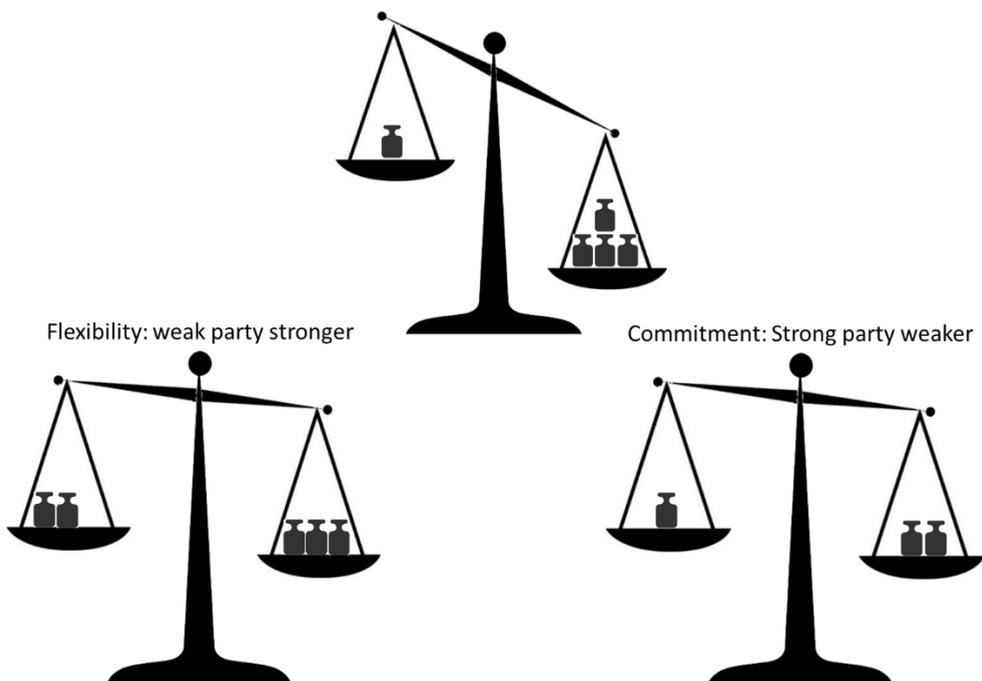
This form of governance requires preferences that are "social" in two respects (in-depth module 9). First, people value more than just their own material self-interest; they derive meaning and self-respect from serving a ('sacred') greater whole with which they identify (Ariely, 2012). Second, these preferences are endogenous in the sense that they can be influenced by the group. Building shared 'we' identities and the associated intrinsic motivation to serve the group provides new opportunities to foster cooperation and increase well-being. At the same time, however, building group identities creates potential conflicts of interest between and within groups and thus raises a variety of challenging ethical questions (Akerlof and Shiller, 2015).

## In-depth module 13. Transaction versus relationship.

### *Commitment versus flexibility*

A better balance between two parties can be achieved in two ways: giving the weaker party more weight or the stronger party less (figure 15). The first alternative is flexibility: allowing the weaker party to switch cooperation partners disciplines the stronger party. The second alternative is commitment: restricting the freedom of the stronger party. Which of these two alternatives is preferable depends on the context. Flexibility yields less counterparty risk. It features also less liquidity risk: flexibility gives opportunities to respond to unexpected shocks. Commitment has the advantage that interests run more parallel in complex interactions. The reason is that partners share a common past and future if they are committed to each other. Hence, they get to know each other better, while trust and benevolence can grow. The dilemma between flexibility and commitment is closely related to the distinction between transactions and personal relationships.

Figure 15. More balance



Source: own figure

Transactions are short-term interactions with people you know little about. Relationships, on the other hand, are more enduring, allowing you to get to know, trust and appreciate collaborative partners. Transactions are associated with flexibility and are typically based on the impersonal trust of money. Relationships, in contrast, involve commitment and personal trust in the partners with whom you cooperate.

*Balance between transaction and relationship depends on complexity*

Transactions work well if human interactions are standardized and the relevant information is public. This requires homogeneous, simple products and services. In contrast, more complex, non-standardized and longer-lasting interactions require enduring, personal relationships. In these relationships, people get to know each other so that they can trust and appreciate each other: the specific investments of getting to know each other reduce the asymmetry in information. A party who makes such an investment today sees these costs in the long-term perspective of the future returns of the relationship. Further, one builds mutual affection and a shared "we" identity. Mutual benevolence binds the partners to each other's interests. It is precisely the lack of interchangeability that gives such relationships intrinsic value to the partners: they can find meaning in serving each other because they cannot easily be replaced by others.

*Risks of personal relationships...*

Personal relationships and other small-scale relationships also suffer from disadvantages. Two factors make relationships risky. First, parties are vulnerable to counterparty risk: the 'internal' risk that the other party does not keep to the (spirit of the) agreements. A second risk-increasing factor is that relationships are illiquid; you cannot easily replace your partner for someone else if circumstances change.

*...and limited scope*

The scope of cooperation is limited within small-scale communities: there is a trade-off between the complexity of cooperation and its breadth. Loyalty to one's own group can harm outsiders; benevolence and empathy are then not balanced.

## In-depth module 14. The Economist as a Jack Of All Trades

*“The study of economics does not seem to require any specialized gifts of an unusually high order. Is it not, intellectually regarded, a very easy subject compared with the higher branches of philosophy or pure science? An easy subject, at which few excel! The paradox finds its explanation, perhaps, in that the master-economist must possess a rare combination of gifts. He must be mathematician, historian, statesman, philosopher — in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man’s nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near to earth as a politician.” (Keynes, 1924)*

The connections between economics and the humanities are many. The great stories of literature, religions and philosophy provide wonderful contexts for teaching and illustrating economic concepts. Mathematics can also be understood and applied with the aid of economic problems. Brain research on how people think and feel connects economics with biology. Phenomena in the natural and technical sciences often have an analogy in economics. Also history and social geography (the economics of space) provide wonderful contexts for understanding and applying economic concepts (Teulings, 2016).

## **In-depth module 15: Platform Education2032**

The recent advice of the Platform Education2032 (2016) emphasizes personality formation ('choosing wisely') and socialization ('working well together'). The goal is that students can better utilize their growing freedom of choice and the associated responsibility for shaping their own lives.

In the context of more meaningful learning, PlatformOnderwijs2032 advocates inquiry-based learning by activating students' intrinsic curiosity. Education teaches students to discover who they are and what they find important. In addition to self-reliance and self-regulation, it is about learning to cooperate and take account of the interests of others — including those with different preferences and talents. Furthermore, creativity is of the utmost importance. Instead of the mere reproduction of concepts, the development of higher thinking and communication skills is called for. Young people learn to make connections. Rather than subjects alone, also domains and themes become important.



# References

- Acemoglu, D., and J.A. Robinson (2012). *Why Nations Fail. The Origins of Power, Prosperity and Poverty*. New York: Crown Publishing Group.
- Akerlof, G. A. and R. H. Kranton (2010). *Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being*. Princeton: Princeton University Press.
- Akerlof, G. A. and R. J. Shiller (2009). *Animal Spirits: How Human Psychology Drives the Economy, and Why it Matters for Global Capitalism*. Princeton: Princeton University Press.
- Akerlof, G. A. and R. J. Shiller (2015). *Phishing for Phools. The Economics of Manipulation and Deception*. Princeton: Princeton University Press.
- Ariely, D. (2012). *The (Honest) Truth about Dishonesty*. New York: Harper Collins Publishers.
- Ashraf, N., C. F. Camerer and G. Loewenstein (2005). Adam Smith, Behavioral Economist, *Journal of Economic Perspectives* 19(3), 131-145.
- Banning, C. and M. Canoy (2016). Gezocht: een Multifocale Economische Bril. In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: *Economische Statistische Berichten*.
- Becker, G. (1993). The Economic Way of Looking at Behavior. *Journal of Political Economy* 101(3), 385- 409.
- Biesta, G. (2015). *Het Prachtige Risico van Onderwijs*. Culemborg: Uitgeverij Phronese.
- Boot, A. and A. Kolkman (2016). M&O – de Positionering van Bedrijfseconomie in het Middelbaar Onderwijs. In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: *Economische Statistische Berichten*.
- Bovenberg A.L., M. Canoy and F. Haan (2016). *Economie = Relaties*, Visiedocument. <https://goldschmedingfoundation.org/programma/economie-onderwijs>
- Bovenberg A.L. and M. Canoy (2016). Relaties en Economie, *Economische Statistische Berichten* 101 (4742S), 68-71. Dossier over Geluk, Hoop & Liefde.
- Bowles, S. (2004). *Microeconomics. Behavior, Institutions and Evolution*. Princeton: Princeton University Press.
- Bowles, S. and H. Gintis (2013). *A Cooperative Species: Human Reciprocity and Its Evolution*. Princeton: Princeton University Press.
- Bowles, S. (2016). *Moral Economy. Why Good Incentives are no Substitute for Good Citizens*. New Haven: Yale University Press.
- Bruni, L. (2008). *Reciprocity, Altruism and the Civil Society. In Praise of Heterogeneity*. Routledge Advances in Game Theory. New York: Routledge.
- Bruni, L. (2012). *The Wound and the Blessing. Economics, Relationships and Happiness*. New York: New City Press.
- Buijs, G. (2014). Publieke Liefde als Kern van de Economie. *Management en Organisatie* 5/6, 74-99, september/december 2014.
- Centraal Planbureau (1997). *Challenging Neighbours. Rethinking German and Dutch Economic Institutions*. Berlijn: Springer.



- Commissie Teulings (2002). *Economie Moet je doen; Herziening Programma Economie voor de Tweede Fase*. Enschede: SLO.
- Commissie Teulings (2005). *The Wealth of Education; Herziening Programma Economie voor de Tweede Fase*. Enschede: SLO.
- Damme, E. van (2016). Waarom Doceren Wij Ouderwetse Economie? In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: Economische Statische Berichten.
- Dekkers, T., A. Falk, F. Kosse and H. Schildberg-Hörisch (2016). *The Formation of Prosociality. Causal Evidence on the Role of Social Environment*. IZA DP No. 9861. Bonn: IZA.
- Dubner, S.J. and S. Levitt (2009). *Freakonomics. A Rogue Economist Explores the Hidden Side of Everything*. New York: HarperCollins Publishers Inc.
- Dubner, S.J. and S. Levitt (2009). *SuperFreakonomics: Global Cooling, Patriotic Prostitutes, and Why Suicide Bombers Should Buy Life Insurance*. New York: HarperCollins Publishers Inc.
- Dubner, S.J. and S. Levitt (2014). *Think Like a Freak*. New York: HarperCollins Publishers Inc.
- Fehr, E. and U. Fischbacher (2002). Why Social Preferences Matter: The Impact of Nonselfish Motives on Competition, Cooperation, and Incentives. *Economic Journal* 112, C1-C33.
- Fehr, E. and U. Fischbacher (2003). The Nature of Human Altruism. *Nature*. 425, 785–79.
- Fehr, E. and A. Leibbrandt (2011). A Field Study on Cooperativeness and Impatience in the Tragedy of the Commons. *Journal of Public Economics* 95 (5), 1144-1155.
- Flare (2016). *Impact & Succes. Kwalitatieve Marktexploratie naar de Kansen voor een Nieuwe Lesmethode Economie*, gebaseerd op de visie van Bovenberg, Canoy & Haan. Amsterdam: Flare. Studie is niet openbaar. Opvraagbaar bij Blink, <http://www.blink.nl>, 's-Hertogenbosch.
- Gautier, P. (2016). Reactie op: De Maatschappelijke Econoom. In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: *Economische Statische Berichten*.
- Grant, A. (2013). Does Studying Economics Breed Greed? *Psychology Today*, October, 22.
- Heckman, J. (2000). Policies to Foster Human Capital. *Research in Economics* 54, 3-56.
- Henrich, J., R. Boyd, S. Bowles, C. Camerer, E. Fehr and H. Gintis (eds.), (2004). *Foundations of Human Sociality. Economic Experiments and Ethnographic Evidence from Fifteen Small-Scale Societies*, Oxford: Oxford University Press.
- Hollanders, D. and S. Onderstal (2016). Marktfalen in de Markt voor Academische Economieopleidingen. In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: *Economische Statische Berichten*.
- Kahneman, D. (2011). *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.
- Keynes, J. M. (1922). Introduction to the Cambridge Economic Handbook Series. In: D. Robertson: *Money*.
- Keynes, J.M. (1924). Alfred Marshall, 1842-1924. *The Economic Journal* 34 (135): 311-372. Keynes, J. M. (1938). Brief van 4 juli aan Roy Harrod, <http://economia.unipv.it/harrod/edition/>

editionstuff/rfh.346.htm

- Marshall, A. (1885 [2005]). The Present Position of Economics. *Journal of Institutional Economics* 1(1), 121-137.
- Moor, T. de (2013). *Homo Cooperans. Instituties voor Collectieve Actie en de Solidaire Samenleving*. Inaugurele rede. Utrecht: Universiteit Utrecht.
- Ostrom, E. (2009). *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*. The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2009. Stockholm: The Nobel Foundation Complex Economic Systems. Was also printed in: *American Economic Review* 100 (June 2010):641–672.
- Piketty, T. (2014). *Capital in the Twenty First Century*. Harvard: Harvard University Press.
- Platform Onderwijs2032 (2016). *Ons Onderwijs2032 Eindadvies*. Den Haag: Platform Onderwijs2032.
- Reus, T. de, (2009). *De Balans van Bovenberg*. Kampen: Kok.
- Ridley, M. (2010). When Ideas have Sex. TEDGlobal 2010. [http://www.ted.com/talks/lang/en/matt\\_ridley\\_when\\_ideas\\_have\\_sex.html](http://www.ted.com/talks/lang/en/matt_ridley_when_ideas_have_sex.html)
- Rodrik, D. (2015). *Economics Rules. The Rights and Wrongs of the Dismal Science*. New York: Norton.
- Rupert, J., J.W. Hengstmengel, R. Haan, F. Goldschmeding, P. van Geest and H. Commandeur (2016). *Kennen, Dienen, Vertrouwen*. Naar de bronnen van de Goldschmeding Foundation voor Mens, Werk en Economie. Amsterdam: Boom.
- Sachs, J. (2015). Investing in Social Capital. In: Helliwell, J. F., R. Layard and J. Sachs (red.) *World Happiness Report 2015*. New York: United Nations.
- Sen, A. (2001). *Development as Freedom*. Oxford: Oxford University Press.
- Social Cultureel Rapport (2014). *Verskil in Nederland*. J. Boelhoever, C. Vrooman and M. Gijberts (red). 2014-33. Den Haag: SCP.
- Teulings, C. (2016). Vijf Jaar Programma Teulings in de Praktijk: Wat Kan Beter? In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: Economische Statische Berichten.
- Thaler, R. H. and C. R. Sunstein (2009). *Nudge: Improving Decisions about Health, Wealth and Happiness*. New York: Penguin Books.
- Tieleman, J., S. de Muijnck, M. Kavelaars and L. Fränkel (2016). De Maatschappelijke Econoom. In: *Economieonderwijs*, Lans Bovenberg and Ferry Haan (red). Koninklijke Vereniging voor de Staathuishoudkunde, Preadviezen 2016. Amsterdam: Economische Statische Berichten.
- Waal, F. de (2009). *The Age of Empathy: Nature's Lessons for a Kinder Society*. New York: Harmony Books.
- White, A. (2007). A Global Projection of Subjective Well-being: A Challenge to Positive Psychology? *Psychotalk* 56: 17-20.
- Worldbank, Development Research Group. Data (2016). <http://data.worldbank.org/indicator/SI.POV.DDAY?locations=1W&start=1981&end=2013&view=chart>
- Young, S. (2016). *Religion and Terrorism: Reflections and Solutions*. Caux Round Table, Moral Capitalism at Work, Paper.

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