Piotr Kowzan ORCID: 0000-0002-6506-8327 University of Gdańsk

The Pedagogy of Geese Sent into the Future: On the Theory of Value

I like it when pedagogical thinking confronts the dread of the future, softening the boundaries between disciplines in the process. Pedagogy is an applied science, so we seek to address problems. Today, this sense of dread arises from the climate catastrophe, wars, and the ways in which humanity will use artificial intelligence. And although educators can do little on Earth, where the extinction of species rather than their persistence is the rule, they continue to try. We promote education for peace, climate change education as well as media literacy.

These attempts to bring out the potential of humanity, however, face difficulties due to the socio-economic order known as capitalism. Adding dynamism to the processes of exploitation and emancipation are *general-purpose* (GP) technological innovations, with artificial intelligence being the most disruptive of them, more discovered than merely invented, thanks to machine learning techniques. Therefore, in this article, in a somewhat post-apocalyptic spirit, I will address the issue of creating values that mobilise people to act regardless of the challenges.

The paper that I would include in the "educator creatively terrified of the world" trend is "Koniec pracy' czy koniec zatrudnienia? Edukacja wobec presji światowego rynku" by Tomasz Szkudlarek (2005). This was the first and, for years, the only pedagogical publication to address the problem of the morphology of money in shaping cooperation between people. Szkudlarek drew attention to the monopoly of money as a source of social problems. He diagnosed that it is the lack of money in the region that causes apathy, even though there is "plenty of work to be done" around (Szkudlarek 2005: 30). This paradox was already worrying John M. Keynes a century ago (Dowbor 2023). Szkudlarek attempted to address the problem by writing about money of a structure different from the state, whose circulation is coordinated by time banks:

It would seem that the lower the degree of formalisation and "materialisation" of money, the safer from the point of view of the legal protection of the money monopoly. For this reason, "time bank" organisations, where the only criterion used to account for work is the duration of the work, are relatively widespread (Szkudlarek 2005: 26).

And he urged:

I believe that educational circles should – and have the chance to – begin a public debate concerning the legal conditions for time banks and other work exchange systems and lead to an unambiguous legal interpretation that enables safe animation work (Szkudlarek 2005: 30).

"Koniec pracy' czy koniec zatrudnienia? Edukacja wobec presji światowego rynku" is an instructive paper even today. It is not just about the pressure of the labour market caused by the development of artificial intelligence; the challenge of undervaluing human labour also includes "expendable people" (Czarnowski 2018), who may be drawn into the service of social media violence if other activities do not seem more meaningful, profitable, or simply accessible to them. I was captivated by a small detail in this article, a sentence starting with: "A few years ago while cycling through Central Pomerania...", because it revealed the spontaneous origin of the empiricism appearing in the article. It was just an accidental discovery in the laboratory of everyday life. An eyewitness account of the living conditions of people deprived of access to state money reduced the now traditional critique of capitalism in its then neo-liberal form to seeking solutions to the problem of depriving people, places and activities of value by cutting them off from money, the universal mechanism for regulating access and inducing mass cooperation.

In retrospect, this article could constitute a good reason why Tomasz Szkudlarek became the supervisor of my doctoral dissertation. In it, I addressed the educational role of debt. During the course of my work, I drew on an anthropological approach, exploring the multiplicity of what can serve as currency (*monies*). I have been exploring how people cope with the expansion of those deviously regulating access to the world of goods that is modern money (Kowzan 2021). Today, I understand that many of the problems with capitalism that Szkudlarek wrote about could then and can still be solved even on a regional level, making it so that instead of hoarding money, it can be treated simply as a regulator of exchange. An example of an effective solution is negative interest money, which discourages hoarding and encourages actions in favour of protecting values with zero productivity, such as investing in a forest reserve. All this while maintaining the monopoly of money, which Szkudlarek identified as a fundamental problem.

Of course, this potentially quick and technically easy (one decision) solution would cause other problems. However, no one would stifle people's activity anymore by keeping money away from them.

In this article, I will focus on the second function of money – the storage of value. We identify numerous values that are worthy of passing on or even storing, but it is difficult for educators to find the tools to make these values sustainable in

a world where money with universal convertibility dominates. I will discuss the possibilities opened up by the function of storing wealth, showing how to weave it into scientific exploration at school, in a lecture or seminar. I will use a historical example from a café, not a lecture hall.

During the interwar period, a group of mathematicians emerged in Lviv who became famous for both their discoveries and the scale of their impact on mathematics. They were remembered as the Lviv school of mathematics and were characterised by their work not only at the university, but also in a café. There, they formulated and solved problems, interspersed with discussions on various topics. Their specific work was documented by the so-called *Scottish Book*, where identified mathematical problems were posted as challenges:

They were placed on one side of consecutive pages of the notebook, leaving, space on the other for the solution. They were labelled with a number, the date, the name of the problem's author, and information concerning the reward they were establishing. A reward appeared first with the sixth issue. Stanisław Mazur promised to buy the author of a good solution a bottle of wine. The amount of the reward depended on the difficulty of the problem and the ingenuity of the author. The rewards varied, "ranging from a small black coffee to a live goose" - Steinhaus recalls. Or from one small beer to five, also small ones, funded by Mazur and Knaster, to 10 dag of caviar promised by Steinhaus, a kilo of bacon from Stanislaw Saks to dinner in the restaurant of Lviv's best hotel George (Steinhaus). There were also rewards to be claimed abroad: lunch at the Dorothy restaurant in Cambridge (funded by Englishman A.J. Ward) and even a fondue à la crème, which Swiss mathematician Rolin Wavre promised to feed (in Geneva!) to the author of the solution. The most frequently declared reward was alcohol. A bottle of wine (a bonus for solving the tasks of Banach, Mazur, Ulman, and Sobolev), champagne (funded by Łazar Lusternik) or whisky ("of a measure greater than zero" - which was promised by John von Neumann). But the strangest award was a live goose. The problem posed by Stanisław Mazur in the summer of 1936 waited to be solved until 1972 (Urbanek 2014: 10-11).

Rewards were usually simple and available in the café, although it was the most eccentric ones, such as a live goose, that made history. And did so because the problem, for the solution of which the reward was a live goose, was solved many years later, and the winner was indeed given a goose.

Perhaps only connoisseurs of economic anthropology will appreciate the detail that the goose ultimately handed over as a reward did not exist when it became the object of the promise. Stanisław Mazur, i.e. the person who cared about solving a given problem, went into debt voluntarily, i.e. took resources from the future to assign the problem an interesting value. Several decades later, he had to make this goose real, so that it could be collected by Per Enflo for solving the posed problem.

An *I Owe You* is basically money and works as long as people share the belief in the promise being fulfilled. Interestingly, fulfilling the promise makes this money cease to exist. Adding a condition, fulfilling which entitles individuals to end the existence of money, makes it impossible or extremely exclusive to convert it into other goods, as it is restricted to a group of individuals who fulfil the condition. The

goose opens a meritocratic tournament in which you have to use certain skills in a unique way to win. Winning the goose changes basically nothing in the material status of the winner. The award simply becomes an excuse for the shared laughter of witnesses to the ceremony, because having a live goose is more trouble than a benefit. Nevertheless, it is difficult to overestimate the prestige of solving a problem that is associated with such an eccentric reward that can be proudly shown.

Why are geese pedagogically relevant?

Geese can be used to mark abandoned lecture threads. Geese will invite you to undertake research from where the previous generation left off. Geese are offered democratically, that is, to anyone, not just to loved ones, students, or acolytes.

Let's start with a lecture. Let's take a look at the practical challenges of implementing a thing-centred pedagogy (Zamojski 2019). The teacher presents an object or topic worth studying on a table or board. The logic and dynamics of a lecture or seminar do not allow for addressing all aspects of the object at once. Thus, threads that are indefinitely suspended come into play. Sometimes, a lecture leads students to issues that are intriguing and worth resolving, but too distant from the object of study. These, however, will not be the threads that constitute what students will call knowledge, but, at most, a digression. If those studying do not spot someone else's geese from the edge of a pier (which is what the digression is) or release their own, they will turn back on the trail, looking for the path that they later recognise as the main thread. And when it is another lecture on the same subject, even if one approaches it with a teacher's love (Vlieghe, Zamojski 2019), the initial excitement about the exploratory nature of the lecture gives way to the feeling of visiting a collection that has already been described many times – museum-like, so to speak. At that point, we see the geese rather stuffed, meaning we measure the state of knowledge by our own achievements in the given field or those of our predecessors.

Geese are important for the intergenerational dimension of scientific inquiry. In the humanities, researchers declare to which of their predecessors they owe their choice of research problems or even their own way of thinking. It is a kind of intellectual debt that no one forces them to accept. The descendants decide which threads to pick up from where. However, they are often deprived of guidance, like the list of open problems that the *Scottish Book* once provided. Without the V-formations of geese, the work of the descendants begins and sometimes ends with reinterpreting the thoughts of predecessors in the face of contemporary challenges and sensibilities. A substitute for the geese are the mere ritualistic remarks at the end of the paper, suggesting what else should be investigated to gain a fuller picture than just what was covered in the described study. However, problems in science, and especially in pedagogy, are "hairy", meaning they have branches or difficult-to-grasp rhizomes, to which we sometimes promise (ourselves!) to return

in a later paper. And when this does not happen, it should be acknowledged that the potential goose did not hatch from the egg. Researchers familiar with the topic ran out of time, and the future ones won't notice it. The problems will remain "hairy", and the rhizomes will remain synonymous with indeterminacy.

One may regret that pedagogical knowledge is not always cumulative in nature and that the multiplicity of paradigms (actual theoretical-cognitive limitations or mere doctrines) is the cause of incommensurability of achievements. However, this does not have to be a permanent diagnosis. By releasing V-formations of geese, we force ourselves or our successors to establish criteria for success and resolution. Mathematicians, with their formalised language and proof procedures, had it easier in this respect when proposing their geese. Yet, they have not given up on breaking down the barriers between strongly distinct fields of mathematics (number theory, harmonic analysis, geometries, etc.) and they continue to build bridges between them through the Langlands programme. By releasing V-formations of geese, we not only inspire educators to search and explore, but also create opportunities to establish new criteria for success that can contribute to the advancement of pedagogy as a scientific discipline.

Why should a goose be eccentric?

Geese in their potential state, meaning those promised, not only facilitate intergenerational continuity in research. They also cross borders and cultural boundaries because, if they are eccentric enough, they gain recognition in other countries. In the historical context, these were probably geese intended for consumption. This culinary nature of designating a research problem is related to the festive nature of mathematicians' meetings. A shared meal is synonymous with hospitality, and it is a time free from calculations like "What's in it for me?" or "Who are you to me?". It is egalitarian. The symbolic goose can be anything, from a bottle of wine waiting for a brave person to complete a challenge, to a few grams of cannabis to be picked up in a friendly country. It should be spectacular and eccentric (hence the cannabis example), because it is not about financial resources but about the cosmopolitan bond between enthusiasts of a particular field.

The term "eccentricity" is used loosely here, but the essence of the mechanism for creating value is to connect a demanding task with an unusual reward that breaks behavioural norms. This unique approach is important because without a distinctive lifestyle (almost aristocratic), i.e., the eccentricity of the group setting the rewards, the creation of value may become culturally barren, despite its apparent productivity. Let the account of how Lviv's tradition continued in Wrocław after the Second World War serve as a warning against routine: The New Scottish Book, established in Wrocław after the war, survived for forty years. There were 968 issues and problems entered into it, as calculated by Professor Roman Duda. The first was placed by Steinhaus in early July 1946, and the last one appeared in 1987. There were also rewards. In the style of the pre-war ones: a bottle of champagne to drink in Paris (from the French mathematician Gustav Choquet), 300 litres of Pilsner beer (Czech Vojtech Jarnik), but also in the spirit of the new regime (Urbanek 2014: 229).

And further:

The Wrocław Book (that was its other name), despite its much longer duration, has not become as legendary as its original. There was Hugo Steinhaus in Wrocław, there was no shortage of other eminent mathematicians and originals, a notebook similar to Lviv's was bought (and then two more), but the spirit of the Scottish café was missing (Urbanek 2014: 229).

Not only has sitting in cafés apparently disappeared in Wrocław, but sitting in them in modern times is no longer perceived negatively. Creating values is an act that requires transgression. If the awards are "in the spirit of the new regime", this is insufficient. If almost everything valuable can be bought with money, it means a profanation of these previously non-exchangeable values. It is a similar profanity to set up a live goose as a reward for solving a scientific problem, or a few cows for killing or injuring a neighbour, which used to break the cycle of family revenge. Establishing the value of one case against another is arbitrary. Therefore, it requires an event, in the sense given to the term by Alain Badiou (2010), i.e. something that escapes representation and to which people will want to bear witness. Then the procedure of assigning values is bearable and becomes culture-creating.

It is most likely that this eccentricity was missing from the time banks, which were given attention by Szkudlarek. A logical and technically efficient system for converting work into time can be developed, which was quite anchored in Marxian analyses. However, such a system failed to handle commodity fetishism, i.e. the magic of money itself, when it also represents wealth (*cf.* Winczewski 2017).

Geese in the language of value theory

In the field of pedagogy, when we deal with values, we can observe efforts directed at identifying values and establishing their hierarchy, which involves indicating what is good and desirable in social life (*cf.* Koźmińska, Olszewska 2014). Then, there are attempts to understand the interchangeability of values, often inspired by linguistics and involving the localisation of meanings, as simply naming something is a form of valuing. In this context, it is about preventing everything from being subordinated to the value of state money (*cf.* Rutkowiak 2010) and understanding the processes by which certain values are combined with or subordinated to others in social life. Regarding this latter issue, Ernest Laclau's theory of hegemony, developed by Szkudlarek, is relevant, even though it does not directly mention values. It grew out of an analysis of how various social demands converged under the common demand of Solidarity (Laclau 2009; Szkudlarek 2016). The third perspective is thinking about values in terms of cultivating them (Mendel et al. 2018; Nikitorowicz 2019), with an emphasis on the role of memory, particularly institutional memory.

The weakest aspect of pedagogical research is the identification of material carriers of value, which in recent years has led to an increase in biased reviews of popular culture offerings such as games, toys, and books. This approach generally does not even attempt to recognise the hidden program within them but instead relies on a "witch trial" approach – viewing cultural artefacts through the lens of a pre-imposed doctrine, usually religious in nature.

Against this backdrop, geese (and other eccentric promises) constitute an attempt to take an instrumental approach in establishing values and creating opportunities for cultivating them by future generations. Geese initiate a tournament, challenge, or game and can be woven into didactics as an addition to a task without a known solution. Geese do not operate according to the logic of the gift, in the way we are accustomed to interpreting the theory of Marcel Mauss (1966), because they do not initiate reciprocal social relations. Rather, they encourage hard but hidden work, because in a tournament it is the result that counts. Cultivation, meaning this largely hidden effort, becomes a side effect of the value-setting process. The eccentricity of geese towards a field in which the task is anchored can make the goose-reward an object of desire, analogous to receiving state money for its own sake.

The emergence of a winner ceremoniously brings to an end the work of many others who also attempted to meet the challenge. And from the perspective focused on the efforts of working people, geese fit into the Marxist theory of value, as they cannot materialise without work. However, it is, by definition, unpaid work, and its aggregate quantity cannot be measured. Attempts to solve the posed problem ultimately turn out to be a form of active support. Therefore, cultivating values is less about defining what a value is and more about the act of valuing, which stimulates people to act. Thus, it constitutes the construction of a fundamentally Piagetian structure, because "Piaget insists that the basis of any system of knowledge is always a set of practices: Mathematics, for example, is not derived from the "idea of number" but from the practice of counting. The abstract categories, however important, never come first." (Graeber 2001: 61).

The geese are closest to the interpretation of values proposed by Nancy Munn (1986), who linked them to control over time and space in her model of value creation – developed on the tiny island of Gawa in Papua New Guinea. In the context of geese, control and shaping of the world, which is the field of science, is taking place. For Munn, acting is a value in itself, meaning that the act of giving constitutes the value, not what is given:

Value, then, is the way people represent the importance of their own actions to themselves – though Munn also notes that it we are not talking about something that could occur in isolation [...], it

can only happen through that importance being recognized by someone else. The highest level of control over space and time is concretized simply as "fame," that is, the fact that others, even others one has never met, consider one's name important, one's actions significant. (Graeber 2001: 45).

Therefore, it sidesteps the issue of whether values are manifested in gifts or goods (including money):

Rather than having to choose between the desirability of objects and the importance of human relations, one can now see both as refractions of the same thing. Commodities have to be produced (and yes, they also have to be moved around, exchanged, consumed . . .), social relations have to be created and maintained; all of this requires an investment of human time and energy, intelligence, concern. If one sees value as a matter of the relative distribution of that [this effort P.K.], then one has a common denominator. One invests one's energies in those things one considers most important, or most meaningful. (Graeber 2001: 45).

In this view, the goose is merely a prop, a synecdoche drawing attention to itself. It is important that geese prevent apathy when "there is a lot of work to do" (Szkudlarek 2005: 30). They serve as fleeting incentives for action (someone might solve a task before us) and, at the same time, as signposts in a space that, to the novice, may seem devoid of reference points. In fact, this applies not only to novices. We value maps for their ability to offer a view of the whole by recognising boundaries. The V-formations of geese are arrows on the trail, pointing the way to the door behind which the unknown awaits. And there is also someone who cares about opening them.

Conclusion

I examined the issue of money monopoly raised by Szkudlarek. Based on my own research, I assumed that dismantling monopoly itself is not necessary for social change, and instead I focused on the functions of money in society. It serves two basic functions: the exchange of goods and the measurement (and ultimately the accumulation) of value. Szkudlarek demonstrated that there are procedures that could replace the function of the exchange regulator. For my part, I have drawn attention to a practice that could support the attribution and enhancement of value to people's creative activities. Having a specific theory of value and creating instruments based on it to address the dominance of state money constitutes an essential exercise in pedagogy if it to remain an applied science.

Instead of concluding the article with the usual ritualistic indication of what should be further explored on this topic, I would like to bring up a goose. It is a personalised challenge. I am offering a reward of 3 litres of fermented red beet juice to Professor Tomasz Szkudlarek if he releases his goose (or a V-formation of geese), as discussed in this article.

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Summary

The Pedagogy of Geese Sent into the Future: On the Theory of Value

I have examined the problem of the money monopoly posed by Szkudlarek, focusing on aspects related to the cultivation of values. Breaking the money monopoly may not be necessary to trigger social mobilisation. When we scrutinise money's purpose, it fulfils two functions: it serves as a medium of exchange and a tool for accumulating value. Szkudlarek has shown that there are procedures that can replace the role of the exchange regulator. In my considerations, I directed attention to a procedure that could help in attributing and adding value to creative human activities. Inspired by the Lviv School of Mathematics, a challenge with eccentric rewards may prove to be an effective way of attributing and cultivating values.

Keywords

money monopoly, cultivation of values, eccentricity, theory of value, Lwów School of Mathematics

Tłumaczenie wykonano w ramach programu rozwoju czasopism naukowych Uniwersytetu Gdańskiego. – The translation was made under the programme for the development of scientific journals of the University of Gdansk.